ROADMAP

2017-2018

ROADMAP
For Teams

DESTINATION IMAGINATION

THANKS TO OUR SPONSORS

EXPLORER PARTNERS

Disney

THE GODDARD SCHOOL
FOR EARLY CHILDHOOD DEVELOPMENT

Ford

Se STEAM experience

ORACLE ACADEMY

MOTOROLA SOLUTIONS FOUNDATION

3M

PCG Education

PMIef
Project Management Institute
Educational Foundation

NATIONAL GEOGRAPHIC

IBM

Jostens

CHAMPION PARTNERS

NXLevel solutions

White and Williams LLP

THE UNIVERSITY OF
TENNESSEE
KNOXVILLE
CONFERENCES &
NON-CREDIT PROGRAMS

Berkley lifesciences
a Berkley Company

McKELLA280

OUR COLLABORATORS

U.S. Space & Rocket Center

ERCA

P21

VISION OF FLIGHT

MAYO CLINIC

NASA
Space
Communications
and Navigation

NASA
Marshall Space
Flight Center

LIFE SCIENCES COLLABORATIVE

ROADMAP

a guide for
informal learning

DESTINATION IMAGINATION®

CONTENTS

Introduction

Educational Foundations of Destination Imagination

Guiding Your Team Through Solving the Challenge

Interference

Instant Challenges

Skills for Creative and Critical Thinking

Facilitating for Successful Teamwork

Project Management

INTRODUCTION

BEFORE YOU BEGIN

Warning: Thinking is contagious! Learning is addictive! Be prepared for a life-altering experience! As a Team Manager, you are about to embark on an amazing opportunity to facilitate a life-changing journey for a team of learners—and yourself! The journey is the most important aspect of Destination Imagination (DI). Get ready to watch as your team members step out of their comfort zones, learn from failure, and enjoy fits of laughter and brilliance as learning and growth occur. A collaborative team will form and individuals will blossom! You will have the opportunity to be a front row spectator as that experience unfolds.

Stand back and allow DI participants to own the adventure as they shape the journey in their unique ways. You are there to help the team acquire the skills they lack. For example, team members may need help understanding a math concept or how to use a drill. Step up and help them learn those skills, but step aside and give your team members the opportunity to take full ownership of their Challenge solution. That ownership is a vital element of the DI journey. It allows participants to learn lifelong lessons through experience, which will affect each participant in an individual, memorable and meaningful way. Allow team autonomy even as you introduce the team to evaluation and processing skills. The autonomous team's path on this journey may not be a straight one, but every twist and turn will be worth taking. Neither you nor the team members will be the same after just one season!

We are grateful for the time and effort that you are volunteering, and the team members will be forever thankful that you have given them the opportunity to learn and experience the creative process from imagination to innovation.

ABOUT ROADMAP

Roadmap is a guidebook to help you manage your team as it designs and executes a Challenge solution. You are not required to use this resource; however, it is designed to help you teach the creative process and additional skills. As a Team Manager, you are essentially the team's tour guide. You will facilitate, organize and position the team to develop skills that will shape their futures and set them on a path to becoming the next generation of creative thinkers, innovators and leaders. In Roadmap, you will find suggestions, activities and questions to better guide teams toward more focused planning and execution of a solution. Throughout Roadmap, look for Team Manager (TM) Tips for practical ideas that will connect you and the team with Destination Imagination's learning outcomes.

TM Tip: Note-taking as the team processes, reflects and evaluates can be a nice way to document team growth. There are opportunities for documentation throughout Roadmap.

Roadmap is organized into sections to better help you with the task of managing a team. The Guiding Your Team section will guide you through the Destination Imagination Challenge Experience. The other sections contain resources that can be used as needed throughout the season. You will know your team the best! Familiarize yourself with Roadmap before the season begins. Then to meet the needs of your team, select appropriate resources and suggestions from Roadmap to help you shape a great DI season for your team.

USING ROADMAP

1. Look over the **Educational Foundations of Destination Imagination section.**

    Reviewing the foundations of the Destination Imagination Educational Experience will be helpful in understanding quality project-based learning and the creative process and how both tie into the unique components of DI's educational offerings.

2. Dive into the **Guiding Your Team section** to shape a meaningful experience for your team.

    Selecting from some of the Roadmap resources can help to create a successful plan for meeting the team's needs as the team develops and works on a solution to their chosen DI Challenge.

3. Discover the definition of **Interference** and learn what you can and can't do as a DI Team Manager.

    Although part of the DI Challenge Experience is a team working with no outside Interference on a Challenge solution, you as a Team Manager will find that you have great freedom to assist in growing the team through skills and processes.

4. Incorporate an **Instant Challenge** into each session with your team.

    Practice makes perfect and Instant Challenge is a great way to teach thinking and teamwork and to show team members how rewarding solving issues and problems in a short time can be. Many of life's challenges occur instantaneously, so teach your team how to meet those challenges head on with quick problem-solving skills and practice.

5. Offer your team more efficient ways to a solution by using **Idea Generating and Focusing** tools when you develop meeting agendas for your team.

    Brainstorming, prioritizing, focusing and developing ideas can be a tough journey without the proper vehicles for finding the right team solution. Allow your team to try several tools for generating and focusing, and help them find the perfect fit as they work toward a solution.

6. Promote good **Team Building**.

    Even a good team can improve and become a great team. Assist your team in growing individually and collectively by monitoring the team and using activities to maneuver the "bumps" along the way to understanding a collaborative work environment.

7. Instill good **Project Management** skills.

    Good project-based learning can utilize the tools of project management. Take advantage of the PMIEF project management tools as you train your team in Instant Challenge, as you teach good management skills for their work on a Team Challenge solution, and as you show them how project management skills translate to "the real workplace." Help them prepare for a more successful future with project management skills!

EDUCATIONAL FOUNDATIONS OF DESTINATION IMAGINATION

DESTINATION IMAGINATION PEDAGOGY

The Destination Imagination (DI) Educational Experience is a learner-centric opportunity built completely on the creative process. The DI Educational Experience has the capability to sit within the school setting or beyond. Because of the open-ended DI structure, learners engage in deep inquiry and research while infusing prior knowledge and learning, particularly in the areas of STEAM (science, technology, engineering, arts and mathematics). Most aspects of learning are woven into the DI Educational Experience to prepare learners for future success in education, career and life in an ever-changing world. The Destination Imagination Educational Experience is founded on five primary tenets of unique pedagogy:

PEDAGOGY ELEMENT	LEARNER POINT OF VIEW	EXPLANATION
No Interference	We CAN make this happen.	Skills and knowledge may be taught but solutions and ideas may not be provided by an outside source. Leaders allow learners to find the answers on their own while developing new skills and exploring areas of STEAM.
Resource Awareness	We recognize the value of everything in our solution.	Learners use all of the resources available to them including materials, strengths of team members, research and experts. They learn to work within the constraints of a budget and within the requirements and guidelines of a Challenge.
Clarifying Questions	We ask important, critical questions for clarity.	Learners use questions to ensure understanding and to analyze all potential ideas and solutions. The questioning process allows learner-centric exploration and experimentation. Leaders use questions to deepen learning and understanding and to push learners beyond their assumed limitations. The DI Challenge Experience offers a Clarification system that allows for questions about the Challenge requirements and provides answers from International Challenge Masters, our Challenge experts.
Rapid Ideation and Implementation	We process and produce quickly and recognize that success can come from failure.	Quick, creative and critical thinking are encouraged and practiced. Time constraints imposed in Team Challenges and Instant Challenges require fast idea generation, implementation, possible failure and an immediate move to another possible solution for success.
Authentic Self-Expression	We purposefully express who we are through our innovative solutions.	Learners express individual and team creativity and belief systems, while working collaboratively to solve a Challenge. Solutions are expected to include elements that express individual and team talents, strengths and skills.

THE CREATIVE PROCESS

Our goal at Destination Imagination is to give students the chance to learn and engage with the creative process from imagination to innovation. Team members who develop an understanding of the creative process can more effectively approach problems and take solutions to an innovative level. Below are the components of the creative process that our participants experience while solving our Team Challenges and Instant Challenges. The process integrates Bloom's Taxonomy, the scientific method, 21st century skills, collaborative problem solving, the stages of practical inquiry, and whole child education.

Remember that the creative process isn't a straight and linear path, but one that is circular, often looping back from one stage to a previous stage or stages. In Instant Challenge, the process is condensed into a short time frame and must happen rapidly. At times, the process may feel "messy," but you can help your team move from one stage to another as they create their amazing and innovative solutions.
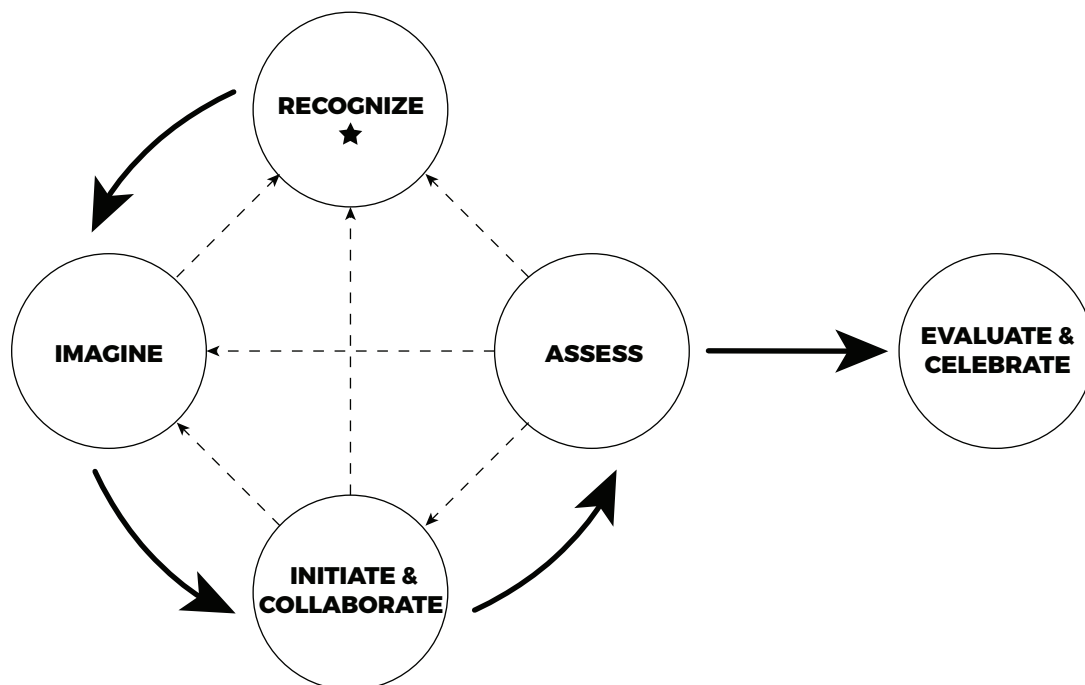
STAGE ONE: RECOGNIZE

- Becoming aware of the Challenge
- Gaining an in-depth understanding of the Challenge

TM Tip: You will know when team members have an understanding of the Challenge when they can summarize it in their own words. Read an Instant Challenge aloud to the team while they read along silently. Then ask them to summarize it to see whether they actually recognize what they are being asked to do.

TM Tip: Helping team members identify their individual interests and strengths and recognize the interests and strengths of their fellow team members provides the team a base of knowledge to use while they begin to work on a solution to their Challenge.

STAGE TWO: IMAGINE

- Generating ideas with team members
- Focusing on promising ideas
- Creating a project timeline

TM Tip: Encourage team members to elaborate on the ideas presented so that the whole team can fully understand them. Many great concepts are lost because some team members may not fully understand them. The team should keep a record of all ideas generated for future use during other stages of the process. Writing down the lists when idea generating and then snapping a photo with a cell phone is a convenient way to document the ideas. The Project Management section on page 105 includes tools and instructions to help the team define solution goals and create a timeline.

STAGE THREE: INITIATE & COLLABORATE

- Researching, exploring and experimenting
- Committing to options
- Building and completing all requirements

TM Tip: Collaboration should be encouraged between all team members as well as with research items. The research could include online articles, websites and books. It could also involve interviews, field trips and experimentation with materials. Encourage the team to prototype, or create small-scale models of the components of its proposed solution, so the team doesn't have to spend large amounts of time and expense on full-scale experimental pieces.

STAGE FOUR: ASSESS

- Assessing progress
- Reworking or reimagining ideas
- Practicing presenting the solution

TM Tip: Ensuring that the team members assess their progress can lead to better solutions. Remind the team members that there is nothing wrong with cycling back to the Imagine Stage to find better ideas as they assess their solution.

STAGE FIVE: EVALUATE & CELEBRATE

- Presenting at a tournament
- Reflecting on and celebrating the experience

TM Tip: Reflecting on the creative process at the end of an Instant Challenge is an excellent way to teach transferable skills to use with a Team Challenge. At the end of each Instant Challenge, talk about how the team progressed through the creative process and have the team evaluate the overall experience and solution. If each team member is still excited about the Challenge and wants to try it a second time, this indicates that a team member has truly arrived at the Celebration Stage and is validated in the creative process, even if the team or a team member feels the solution is a failure.

PROJECT-BASED LEARNING

The Destination Imagination Educational Experience utilizes the components of project-based learning (PBL). Team Managers should familiarize themselves with the components of PBL and look for ways to connect the Destination Imagination Challenges to college readiness, careers and lifelong learning.

What are the elements of project-based learning?

LEARNER FOCUSED: The goal is to equip team members with the ability to recognize skills for working and operating in an ever-changing and diverse global community.

> **TM Tip:** Listen as the team works and assist the team in focusing as much on the process (collaboration, creative process, project management and critical thinking) as on the solution. Younger teams are more drawn to the tactile than the abstract, so it may help to break the process down into more manageable pieces. Praise team members when you see them working effectively through the process.

A MEANINGFUL CHALLENGE: Team Challenges and Instant Challenges are opportunities for a team to work on multi-step and complex open-ended tasks.

> **TM Tip:** Younger and novice teams may need to be shown how to break down Challenges into smaller components that can be solved more easily. Try using an Instant Challenge to help your team learn this skill.

REAL-WORLD CONTENT: "Real-world" refers to the life that exists around each team member—their interests, expectations and concerns. Many of the tasks a team will undertake are defined by their experiences in life.

> **TM Tip:** As you hear team members asking 'what if' questions, encourage them to explore and answer them. This will create a safe environment for team members to explore topics that are important to them.

DEEP INQUIRY: Team members should be constantly asking thoughtful questions and seeking answers to those questions. Probing questions can lead to extended research, a deeper understanding of the findings, and a more effective application of the findings.

> **TM Tip:** Record the interesting questions that team members ask and revisit them later to allow the team members to share their findings. Following up on team members' questions gives them the opportunity to process their findings and share that information with each other.

OWNERSHIP: The team should make its own decisions about how and what they will create as the solution develops.

> **TM Tip:** Keep a journal of the team's progress, noting what decisions were made, who thought of an idea and who executed it. As the season progresses, this will instill confidence in the team members as they take ownership of the components of their solution.

REFLECTION: Reflection time helps to solidify learning and the application of knowledge.

> **TM Tip:** Build in time for the team to reflect on and process the team meeting. Ask reflective processing questions after every Instant Challenge. At the end of each meeting, provide time for the team to reflect on what went well, what could be improved, what they enjoyed about the meeting, and what is left to be accomplished. Reflection at the end can help as the team plans for the next meeting, the next Instant Challenge session or even the next season. Remember, you provide the time and questions, but the team provides the reflection.

ASSESSMENT: There must be continuous assessment and feedback in order for the process and solution to be the best it can be.

> **TM Tip:** Team-generated assessment questions could be about the quality of workmanship, the level of innovation, and the scoring potential of what the team has created. Post the questions for the team members throughout the season, and encourage the team to reference the questions and make assessments as they work on the solution.

AUDIENCE: Although a tournament provides an audience of Appraisers who are familiar with all aspects of the DI Challenge Experience, other opportunities to present to an audience should be provided.

> **TM Tip:** Schedule times for the team to present Instant Challenges to a small audience that doesn't know anything about Destination Imagination. Encourage the audience to ask the team questions about its solution and the Challenge. Invite a small group of people to come to a few team meetings. Have the team members explain what they are creating and how they are developing their solution. However, be sure that the guests do not contribute to the team's solution by providing feedback or giving the team suggestions. The team's solution must consist entirely of their own ideas.

21ST CENTURY LEARNING

Destination Imagination is committed to teaching 21st century skills through the DI Educational Experience. Roadmap is a compilation of 21st century learning best practices. Throughout every stage of the creative process, teams will learn and apply 21st century skills in multiple ways. The creative process is a natural and easy way to foster collaboration, communication, creativity and critical thinking. The activities and skills highlighted in this resource can be used at any time to teach these skills. They will be key factors to success for today's learners as they prepare for college, careers and global citizenship.

The deep connection that DI has with this type of learning can also be seen in our relationship with the Partnership for 21st Century Learning (P21). As a member of the P21 Executive Council, DI has been an integral part of making 21st century learning attainable for anyone.

To learn more about the work that DI has been supporting through P21, please visit the links below. They will lead you to compelling research, conversations, podcasts and more.

FRAMEWORK FOR 21ST CENTURY LEARNING

The Partnership for 21st Century Learning has created a graphic that presents both teaching and learning through student outcomes and support systems. http://www.p21.org/our-work/p21-framework

PARTNERSHIP FOR 21ST CENTURY LEARNING BLOG CATEGORIES

There is a wealth of knowledge and information regarding a number of topics that are pertinent to Destination Imagination teams and Team Managers. Below are some links that contain blog posts about research, best practices, videos, podcasts and more from some of the most important and influential thought leaders in education today.

Citizenship
http://www.p21.org/component/taxonomy/term/summary/45/358

Collaboration
http://www.p21.org/component/taxonomy/term/summary/46/358

Communication
http://www.p21.org/component/taxonomy/term/summary/47/358

Creativity and Innovation
http://www.p21.org/component/taxonomy/term/summary/48/358

Critical Thinking
http://www.p21.org/component/taxonomy/term/summary/142/358

Early Childhood
http://www.p21.org/component/taxonomy/term/summary/63/358

Self-Directed Learning
http://www.p21.org/component/taxonomy/term/summary/60/358

UNDERSTANDING THE DESTINATION IMAGINATION CHALLENGE EXPERIENCE

Destination Imagination is an educational opportunity allowing team members to learn about science, technology, engineering, math, arts, project management, collaboration, creative and critical thinking, and design thinking. Learning occurs firsthand while teams complete solutions to Team Challenges and Instant Challenges. The educational offerings of DI are based on a unique pedagogy:

- **No Interference** – Team members are solely responsible for all aspects of a solution—idea generation, solution design, and implementation. Non-team members may teach skills needed and identified by the team, answer clarifying questions regarding the Challenge, and help teams understand project management. However, they may not offer ideas contributing directly to the solution in any way.

- **Clarifying questions** – Team members understand the power of questions to help them explore possible solutions. The DI Clarification system is a formal method for teams to ask important clarifying questions and to receive an answer from the International Challenge Masters, the experts of a particular Team Challenge.

- **Resource awareness** – Team members recognize the value of resources available to them. Resources a team may use include but are not limited to, skills and knowledge of the team, the time (both long-term and short-term) to complete the Challenge, the budget allowed in the Challenge, and the actual cost of experimenting and finding a solution that works.

- **Rapid ideation and implementation** – Team members practice rapid thinking, design thinking, planning and doing through solving Instant Challenges. They learn to get to the "aha" quickly. Rapid ideation and implementation becomes a useful tool for solving problems of all sizes.

- **Authentic Self-Expression** – Learners uniquely express individual and team creativity and belief systems while working collaboratively to solve a Challenge. Solutions are expected to exhibit elements that express individual and team talents, strengths and skills. DI Challenges include Team Choice Elements as a way to encourage and celebrate self-expression in the team solutions.

For more information about Destination Imagination and our educational philosophy, go to the Educational Foundations of Destination Imagination section on page 3.

The Destination Imagination Challenge Experience support materials include:

- The Team Challenge your team selected to solve
- Rules of the Road
- Roadmap
- An Instant Challenge Practice Set
- Access to the Resource Area for additional materials, training courses and webinars

THE TEAM CHALLENGE

The Team Challenge has two parts: the Central Challenge and Team Choice Elements. (The Improvisational Challenge does not require Team Choice Elements.)

- **Central Challenge (240 points):** This is a project with a number of requirements that will take the team an extended period of time to solve.
- **Team Choice Elements (60 points):** Team Choice Elements allow the team to create two elements not otherwise scored in the Central Challenge, and integrate the elements into their Presentation. Team Choice Elements showcase the team members' "specialties" – their unique abilities, interests, skills and/or talents. The team may choose anything to create for Team Choice Elements.

Your team will most likely spend the majority of the meeting time developing and refining the Team Challenge solution. There are seven types of Team Challenge: Technical, Scientific, Fine Arts, Improvisational, Engineering, Service Learning and Early Learning (a noncompetitive Challenge designed for preschool through second grade students).

Your team can earn up to 400 points at the tournament or showcase. The Team Challenge is worth up to 300 points. The team will also present a solution to an Instant Challenge, worth up to 100 points.

INSTANT CHALLENGE

Instant Challenge (IC) accounts for one-fourth of your team's tournament score, so your team must be sure to make time to practice it! Each year, a variety of Instant Challenges are created. Some of the Challenges require divergent thinking (i.e., out-of-the box creativity), while others have been developed to emphasize teamwork and convergent thinking (i.e., in-the-box creativity). There are three types of Instant Challenges: Performance-Based, Task-Based and a combination of the two. (You can tell quickly which type of Instant Challenge it is by looking for the uppercase words "PERFORMANCE" or "TASK" in the Challenge.) There is no guarantee which type of Instant Challenge the team will be asked to solve at the tournament, so your team should practice all three types.

Instant Challenges can be broken up into smaller subsets beyond just Performance or Task. Below is a chart to help you further categorize Instant Challenges:

PERFORMANCE	COMBINATION	TASK
With Props	Any combination of Performance and Task-Based Instant Challenges	To Build: Height, Width or to Hold Weight
Without Props		To Move
With Imaginary Props		To Protect
With Team-Made Props		To Communicate
		To Change

ROADMAP

Roadmap is a tool to help you, the Team Manager, guide your students to the completion of the team's solution. This section gives you an overview of the process of guiding a team. The Roadmap is designed to give you tools, support and ideas as you guide your team. Team Managers are encouraged to read the entire document.

RULES OF THE ROAD

Rules of the Road is a document that contains all of the rules, procedures and some of the forms required to participate in the DI Challenge Experience at a tournament. It is very important for every team and Team Manager to review Rules of the Road to learn the details needed to prepare for tournaments and to make sure the team's solution to the Challenge fits within the rules.

RESOURCE AREA

The Resource Area is a password-controlled section of the Destination Imagination website. The Resource Area contains current materials, recorded webinars, videos and other tools for help in managing your team. You gained access to the Resource Area when you purchased your Team Number. The Resource Area is available throughout the year by using your email and password. The Resource Area is updated with new materials regularly, so check back for new items.

ROLES OF A TEAM MANAGER

As a Team Manager, you will serve your team in many ways. Your most important role is to guide your team to develop an independent, self-expressive solution that meets the requirements of the Challenge. Along the way, you will develop strong, personal relationships with the team members, have uplifting and frustrating moments, and get the amazing opportunity to change children's lives.

Team Managers take on many roles as they guide the team (mentor, friend, safe adult, Band-Aid applier, supply purchaser and many others). The most common roles are outlined below.

CREATIVITY STIMULATOR
Help team members develop and express their individual and group creativity.

- Teach the team how to use the creative process.
- Help the team learn to use idea generation and focusing tools.
- Encourage experimentation and exploration.
  - ★ Help the team become comfortable with failure and learn to move quickly to the next possible solution.
  - ★ Ask the team to make models and test their theories.
  - ★ Use open-ended questions and give open-ended answers.
  - ★ Remind the team that if the Challenge doesn't say they can't do something, they can!

EDUCATOR

Guide team members as they develop teamwork, learn to use many different tools, plan and build elements of their solution, practice Instant Challenge, and learn project management skills.

- Teach the team any skills they would like to learn that will help them solve the Challenge.

- Find outside resources that can teach any additional skills, including safe tool use.

- Use the resources in Roadmap to teach skills like teamwork (page 85), project management (page 105) and Instant Challenge (page 41).

CHALLENGE EXPERT

Serve as the team's internal expert on the Challenge and the DI rules.

- Ensure the team understands the Challenge. If they are headed in a direction that does not meet the requirements, interrupt them to reread the Challenge and discuss the meaning. Remember that team members may have a different solution than the one you expected. Be open to their thoughts and ideas – team members are often far more creative than adults.

- Read the Challenge several times to ensure you understand it. Read it several times with the team to ensure they understand it.

- Remember, you are not the final authority on the Challenge. Teach the team to use the Clarification system to ask questions of the International Challenge Masters. (Each team is allowed up to 10 Clarifications. Remember to submit only 1 question per Clarification.) Your team can submit Team Clarifications and you can read Published Clarifications on the Destination Imagination website under the Team Challenges tab.

INTERFERENCE DEFLECTOR

Ensure that the team's solution to the Challenge is team-directed and team-developed.

- Follow the rules of Interference that are listed in Rules of the Road and on page 37 in this document.

- Teach your team members about Interference and how to avoid it.

- Remember that teaching skills, helping the team to understand the Challenge, guiding the team to be better team members, and helping them to manage their project with project management tools are not Interference.

- Teach parents about the Interference rules and ask them to sign the Interference agreement on page 40 in this document.

CHIEF SAFETY OFFICER

Safeguard team members. Help the team understand safe tool use and safety guidelines, constructive conflict rules, and behavior guidelines.

- Read, understand and sign the Volunteer Code of Conduct. You will be required to sign it when you access the Resource Area on the Destination Imagination website.

- Guide the team to set team rules and expectations. There are suggestions on page 89.

- Establish tool use rules and procedures. If you don't know how to use certain tools, you can ask someone experienced to teach the team members. Your local hardware store may have classes to teach safe tool use.

- Review the Safety section of the Rules of Road (page 21). This section explains what things are and are not allowed in the Presentation.

- Keep team conflict constructive. The Facilitating for Successful Teamwork section has suggestions to help you manage conflict.

FACILITATOR

Manage meeting space, the team calendar, meeting agendas, Presentation plans and celebrations.

- Find a meeting space for the team. The space can be a classroom, a public space at a library or community center, or your garage or basement.

- Keep the team focused on their goals and help them move forward with their solution at each team meeting.

- Use the project management tools to help the team track their goals and progress.

- Communicate regularly with parents and guardians.

- Ask team parents for help with Instant Challenge preparation and snacks.

- Read emails from Destination Imagination headquarters and your Affiliate. These will include reminders about deadlines for tournament registration and Team Clarifications, information about Team Manager and team training opportunities, and announcements about other opportunities for your team members (including contests and scholarships).

SOLVING THE CHALLENGE

DI Challenges contain many different elements for the team to solve. While this is intentional, a new or younger team may initially feel confused by the elements of the Challenge. Focusing on only one element at a time when there are a number of elements to address may help to better focus the team.

You, as the Team Manager, in addition to your other roles (see the Roles of a Team Manager section on page 11), serve as the initial Challenge expert for your team. Before your team begins solving the Challenge, read the Challenge several times to ensure understanding and familiarize yourself with Rules of the Road and Roadmap. Your team members also need to read and understand the entire Challenge before beginning work on a solution. If team members attempt to solve the Challenge using only the brief Challenge descriptions, they will miss important details necessary to solve the Challenge. It is essential to read and understand the entire Challenge to ensure the team is able to meet all of the criteria when designing a solution.

Real understanding of the Challenge comes from identifying the items to be scored, listing those items by order of importance to the team and then reading the specific sections of the Challenge that pertain to each element. Remember: importance may not just be about the score to be earned; it can also be what interests the team the most. To effectively solve the Challenge, the ideas the team creates need to aim toward a solution that addresses the Challenge. It is well worth the team's time to take a meeting or two (or more) to make sure that every team member fully understands the Challenge. Only when they truly understand the Challenge can they begin to effectively solve it.

As you and your team read the Challenge, keep in mind that each section of the Challenge highlights a task/project/ deliverable your team members will need to produce to create a solution to the Challenge. All Challenge requirements must be met unless otherwise stated using the terms "should" or "may." Be sure to read and understand the section on Team Choice Elements. Two Team Choice Elements will need to be included in the team's solution to the Challenge (except for the Improvisational Challenge).

You will notice the Challenge uses many command statements to present rules and details (e.g., Create and dramatize an original story about a Character who experiences a Flip to a New Point of View). These statements are open-ended and team members use their creativity and imaginations to create their unique vision for the solution. There are also statements in the Challenge which use the word "must" (e.g., the story must include at least one Puppet character and at least one Non-Puppet character). These statements put limits on the team's solution, but the solution they find within those restrictions is still open to creative interpretation by the team.

The Project Management section of Roadmap uses an example of a past Challenge and a team's solution to highlight how to create a project plan. Only certain portions of the past Challenge are referenced to keep the examples as clear as possible.

Example Challenge (an excerpt of the requirements from a past Challenge):

A. Story

1. Create and present an original story that includes one Character that has a First Point of View and then experiences a Flip to a New Point of View.

2. Show the two Points of View and the Flip during the story.

3. The story may include more than one character that experiences a Flip. However, only the one Character listed on the Tournament Data form will earn points.

4. Include at least one Puppet character and at least one Non-Puppet character. Either type of character may experience the Flip. The story may include additional characters of either type.

5. The story may be set in any location, real or imaginary, and in any time period.

B. Puppet

1. Design and construct at least one Puppet that will be manipulated and used as a character during the Presentation.

2. For this Challenge, a Puppet is any artificial figure controlled by the physical manipulation of one or more team members.

3. Control the Puppet live on stage or live behind the scenes. When the Puppet is being used, there must be continuous and direct physical manipulation.

4. The Puppet may not be presented through the use of videos, DVDs or computer animations. The Puppet may not operate with pre-set speech or behavior.

Before your team members begin working on their Challenge, have them complete the remaining parts of the worksheet examples found on the following pages. As you work with your team to read and understand the Challenge they have chosen, make copies of the form on page 16 to help team members organize their thoughts.

CHALLENGE REQUIREMENTS
IDENTIFICATION WORKSHEET

Practice Exercise
Challenge Element: Story

What must be included in this Challenge element?

- A Character who has a First Point of View and then experiences a Flip (change) to a New Point of View

- A Puppet character and Non-Puppet character who interact

- _____

- _____

- _____

What must NOT be included in this Challenge element?

- Pre-recorded words or actions by the Puppet

- _____

- _____

CHALLENGE REQUIREMENTS
IDENTIFICATION WORKSHEET

Practice Exercise
Challenge Element: Puppet

What must be included in this Challenge element?

- _____

- _____

- _____

What must NOT be included in this Challenge element?

- _____

- _____

- _____

CHALLENGE REQUIREMENTS IDENTIFICATION WORKSHEET

(Make copies as needed)

Challenge Element: _____

What must be included in this Challenge element?

- _____
- _____
- _____
- _____
- _____
- _____

What must NOT be included in this Challenge element?

- _____
- _____
- _____

What will earn points in this Challenge element? Points for Challenge elements can be found on the Scoring page in your Team Challenge.

- _____
- _____
- _____

PROJECT MANAGEMENT OVERVIEW

Since the DI Challenge Experience is very similar to the process used by adult work teams, Destination Imagination partners with the Project Management Institute Education Foundation (PMIEF) to include project management methods and tools in our materials. You will find more information about project management in the Project Management section on page 105. Below is a quick overview of the process.

STEP 1: Identifying Challenge-defined requirements. The team will work to identify and understand Challenge requirements. The Challenge Requirements Identification worksheet (page 16) is a tool to help teams complete Step 1 of the project management process for planning a Challenge solution.

STEP 2: Determining team-defined requirements and beginning the planning process. Once the team has identified the requirements of the Challenge, they can begin planning the work required to solve the Challenge. The Deliverable Requirements Planning Chart aids the team in determining the Challenge requirements and the team's plan and ideas to meet those requirements. The team may also add additional team-defined requirements to enhance the solution. You can find more information about Step 2 on page 108 and see an example Deliverable Requirements Planning Chart on page 110. The team may decide not to create a complete project plan; however, completing Step 2 will allow the team to agree on requirements and track progress.

STEP 3: The Project Management section on page 105 of Roadmap guides you and the team through creating a specific project plan to stay on track and complete a solution in time for the tournament or showcase. Creating a project plan involves several steps: setting goals, exploring resources and constraints, examining the scope of the project, determining team roles, resource and material acquisition, setting timelines and milestones, identifying risks, and tracking the project. A well-developed project plan will keep the team on track to completion.

STEP 4: The final step in project management is to review the complete solution. The team will have assessed the individual parts of the solution against the Scoring section of the Challenge throughout the creation of the solution. During the final review, the team members will look at all of their creations and compare them to their plans. Team members can make minor changes during this step before presenting the solution.

Once the team completes a Challenge Requirements Identification worksheet for each Challenge element, they will have completed Step 1 of the project management process. Completing the worksheets in Step 2 will give the team members further clarification of their ideas and goals. Although optional, Step 3 and Step 4 are recommended, especially for older teams, as the additional worksheets and forms will help the team members monitor progress and prepare them to manage this project and future projects on their own.

Step 1 and Step 2 have been developed by Destination Imagination to align with the project management process and to better help teams and Team Managers break down the elements and requirements in DI Challenges. Step 1 and Step 2 ready a team to build a project plan as developed by PMIEF. The PMIEF project plan begins in Step 3.

MANAGING THE QUESTIONS

Team ownership of the solution from inception to implementation is extremely important. Your team's solution is to be their creation alone. No one else can contribute ideas or create items to be used in the solution. However, this does not mean that the team is left without guidance and support from the Team Manager! You may ask questions—many, many questions. Your questions need to be open-ended and should not guide your team to a specific answer. Your goal is to grow a team that thinks and explores options. Below are some examples of open-ended questions that might be asked based on the example Challenge discussed earlier in this section. You can use these examples to create your own open-ended questions for the team. Remember, you will be asking open-ended questions at every meeting!

- What do you imagine your final solution to look like?
- What tools will you need to build the Puppet?
- What skills or information do you need to learn to be able to build the Puppet?
- How will you transport your Puppet to the tournament or showcase?
- In general, what kinds of things flip?
- Think about your life. Have you ever changed your point of view? Tell your team about it.
- Describe all the meanings of "point of view."
- What do you want your audience to see or understand about your solution?
- How will you build your Puppet?
- What is the beginning, middle and end of your story idea?
- What does Rules of the Road say about using live animals in your story?
- How can you learn to make the parts of the Puppet move?
- What do you want the Puppet to do?
- How do you want the Puppet to interact with a Non-Puppet character?
- What does the Challenge say about the Team Identification Sign?

As the Team Manager, you can answer questions about the Challenge and you can teach the skills team members would like to learn (or find someone from outside the team to teach the skill). Your answers need to encourage the team to think further about their question rather than provide them with the answer directly. For example:

Team Question: How do we sew the costume?

Appropriate Team Manager Answers:

- How do you want your costume to look?
- Has your team made a plan about costumes?
- What are some ways to make costumes? Let me write down your ideas as you make a list.
- Have you done some research on costume making? Where can you go to learn more about costumes?
- Would you like to learn to sew? Do you know anyone who can teach you? Where could you go to learn?

Inappropriate Team Manager Answers (Interference):

- Here is a pattern for the costume that I think would look great in your Presentation. I will cut out the pattern and then show you how to sew it.
- I don't think you can use a sewing machine, so I will show you how to use sewing glue instead.
- Let's ask your mom to make it.

There is more information on page 37 about Interference and guiding your team without infringing on the creative process.

CLARIFICATIONS

As teams develop their solutions to the Team Challenges, they often run into sections of the Challenges they find unclear or don't understand at all. If your team runs into this issue, team members can ask their Team Manager to submit a Team Clarification on their behalf. Let the team know about the Clarification process and the importance of reading the Published Clarifications. You can find current Published Clarifications on the Destination Imagination website under the Team Challenges tab.

ASKING FOR A TEAM CLARIFICATION

Your team may ask up to 10 questions of the International Challenge Masters (ICMs) for your Team Challenge. The ICMs will answer your team's questions and email the answers directly back to you. Team Clarifications should be submitted with your help as the Team Manager. You will need your email address and your Team Number to submit the question.

Visit the Clarifications page on DestinationImagination.org and follow instructions to ask for a Team Clarification. All Team Clarifications are confidential between the team and International Challenge Masters. The team's ideas will not be shared with any other team. Keep in mind your team can only ask one question per Clarification request, and your team can only ask a total of 10 Clarification questions. The deadline to ask for Team Clarifications is February 15, 2018.

PUBLISHED CLARIFICATIONS

When the International Challenge Masters feel there is an issue about a Team Challenge or Rules of the Road all teams should know about, a Published Clarification is released. A Published Clarification supersedes Rules of the Road and the Team Challenge, as well as a Team Clarification. Every team is expected to know the Published Clarifications. To check Published Clarifications, visit DestinationImagination.org.

TM Tip: Periodically have a team member check for Published Clarifications online. The team must be aware of all Published Clarifications to successfully solve a Challenge.

WHAT DOES A DESTINATION IMAGINATION SOLUTION LOOK LIKE?

Your team may benefit from watching team Presentations from past years to see how teams approach Challenges. You can find Presentations from past seasons posted on video sites such as YouTube. You can also go to the Destination Imagination YouTube channel (youtube.com/user/DIGlobalFinals) for more videos.

TM Tip: Watching other team Presentations can help both new and old teams understand what may be expected of them at the tournament. When watching, make sure the team remembers the rules of Interference. Team Presentations should be viewed in a broad sense—what they look like, how the teams present, what the Presentation Sites look like—rather than be viewed with the intention of repurposing another team's ideas.

What did your team learn from watching Presentations? What exceptional elements can the team identify? What did the team feel were the best parts of the Presentation? The weakest?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

PLANNING TEAM MEETINGS

Your team will meet multiple times during the Destination Imagination season. The number of meetings will depend on how much time there is until your tournament or showcase, the ages and attention spans on your team, the complexity of the solution your team designs, the amount of time you have in your schedule as the Team Manager, and the availability of your team members.

> **TM Tip:** As the team gains experience and the developing solution becomes more complex, your team may ask for additional time to work together or may need more work space. Be aware of this and attempt to plan for the growth of the project in your schedule and workspace.

Meetings will work best when structured around the current needs of the team. In the beginning, you will set the agenda. As the season moves along and you get to know your team better, you may need adjust the number of times your team meets as well as the time length of the team meetings. In general, a team meeting will follow this outline:

MEETING AGENDA (general example)

Day & Time of Meeting: _____

TIME	ACTIVITY
10 – 20 minutes	**Reconnect as a team** ■ Consider having a snack if your meeting starts in the afternoon ■ Review goals for the meeting ■ Review accomplishments from the previous meeting ■ Have team members share something good that happened during their week
20 minutes	**Instant Challenge practice** ■ Complete one Instant Challenge ■ Be sure to reflect on the experience ■ Allow the team to redo the Instant Challenge in a new or better way after they reflect
30 – 120 minutes	Planning their project or working their plan. (This time will get longer as the team becomes entrenched in building and creating a solution.) You could have a snack in the middle of this time as well.
15 minutes	Reflect on meeting results. Review plan and check progress toward the solution.
20 minutes	Instant Challenge practice
20 minutes	Set goals for the next meeting. Set homework goals for work done between meetings. Decide who is bringing snacks and any needed supplies for the next meeting.
NOTES:	

PARENT MEETING AGENDA

Early in the process, you will want to have a meeting with team parents. You can provide information about meetings, any team or location rules, the DI Interference policy, and how to reach you. You will want the team parents to provide their contact information as well as information about food allergies and other needs of their child. Ask parents or volunteers to help with snacks, Instant Challenge or other aspects of managing a team.

Day & Time of Meeting: _____

TIME	ACTIVITY
10 – 20 minutes	**DI Overview** ■ Explain the educational goals of the DI Challenge Experience ■ Ask for a commitment from families about meeting times ■ Discuss team budget and materials expenses
20 minutes	**Recruit parent volunteers** ■ Create a snack schedule ■ Ask for a volunteer(s) to organize Instant Challenges for each meeting
30 minutes	**Instant Challenge practice** ■ Have the parents and the team members solve an Instant Challenge ■ Reflect on the experience ■ Highlight what each person learned during the process
15 minutes	Discuss Interference and the Interference Contract (page 40)
5 – 10 minutes	Answer questions and adjourn.
NOTES:	

MEETING AGENDA TEMPLATES

Below are some example templates to help you plan meetings throughout your DI season. (The times are suggested.) As you get to know your team, you will be able to determine how long they can productively meet. Meetings can be weekly or more often. If you are managing an older team, the team members will tell you how often and how long they wish or need to meet. Use the examples as you begin and then create your own agendas. A Blank Meeting Agenda template is available on page 30.

Helping Your Team Decide on a Challenge (1 to 4 meetings)

One of the first decisions your team will make is deciding which Challenge to solve. Some teams know right away which Challenge they would like to solve, while others take longer. The First Look document, found on the Destination Imagination website, is designed to help you guide your team to their decision.

INITIAL TEAM MEMBER MEETING AGENDA (EXAMPLE)

Day & Time of Meeting: _____

TIME	ACTIVITY
20 – 30 minutes	Getting to know each other ■ Choose one or two activities from the Team Building section
20 – 30 minutes	Instant Challenge practice ■ Choose an Instant Challenge from the Instant Challenge section ■ Ask the reflection questions included in the Instant Challenge ■ Allow the team to redo the Challenge in a new or better way after they reflect
15 – 20 minutes	Read the Challenge Previews and/or watch the Team Challenge preview videos
15 minutes	Discuss the Challenge Previews and determine which ones to review further
5 minutes	Set the next meeting time and adjourn
NOTES:	

ADDITIONAL CHALLENGE DECISION TEAM MEETINGS

Meeting Agenda (Example)

Day & Time of Meeting: _____

TIME	ACTIVITY
20 – 30 minutes	**Getting to know each other** ■ Choose one activity from the Team Building section starting on page 85
20 – 30 minutes	**Instant Challenge practice** ■ Choose an Instant Challenge from the Instant Challenge suggestions included in Roadmap (page 41) ■ Ask the listed reflection questions ■ Allow the team to redo the Challenge in a new or better way after they reflect
30 – 45 minutes	Review the First Look document or the Challenges your team is interested in solving
15 minutes	Is the team ready to decide on a Challenge? ■ If yes, and they all agree on one Challenge, set the next team meeting. Log in to the Resource Area and be sure to set the team's final Challenge selection. While in the Resource Area, you can request a printed copy of your team's Challenge (U.S., Canada and Mexico only). Begin using the meeting planning templates and benchmarks in the Guiding Your Team section of Roadmap.
Varies and may take additional meetings	If the team is not ready to decide on the Challenge, work through the following list of activities to help guide them toward making a decision: ■ Ask the team members to think about each Challenge and come up with three reasons to do the Challenge and three reasons not to do the Challenge. Ask the team members to bring their reasons to the next meeting. ■ Have the team begin generating themes and ideas for each Challenge. (You can write down the ideas.) After they have listed their ideas, ask the team if one Challenge stands out above the rest. ■ Ask individual team members to choose a Challenge and have them create a persuasive argument to present to the team at the next meeting. ■ Instead of asking "which Challenge do you like?" ask, "which Challenge(s) can you live with solving" or "can you live with solving the Fine Arts (or whichever) Challenge?" ■ If one person is objecting, ask the team member to outline his or her concerns/desires and see if the team can find a way to include the ideas in another Challenge (e.g., one team member really wants to do a musical, but the others really want to build structures. Can the team choose the Engineering Challenge and agree to make their solution a musical?)

Varies and may take additional meetings	■ Ask the team to imagine what their solution might look like when they have finished. Write down their ideas and thoughts. Does one of the Challenges fit their ideas more than the others? ■ Remind the team that they can try one Challenge and if it doesn't work, they can choose another one. Does that make it easier for the team to choose a Challenge now? ■ Avoid a majority rules vote, if at all possible – Challenge selection is an important decision and you want the entire team on board with the Challenge choice.
5 minutes	Set the next meeting time and adjourn
NOTES:	

EARLY CHALLENGE REQUIREMENT IDENTIFICATION & PLANNING (2 TO 6 MEETINGS)

Meeting Agenda (Example)

Day & Time of Meeting: _____

TIME	ACTIVITY
10 – 20 minutes	**Connecting as a team** ■ Have a snack ■ Review goals for the meeting ■ Review accomplishments from the previous meeting ■ Choose an activity from the team building section (page 85)
20 minutes	**Instant Challenge practice** ■ Complete one Instant Challenge from the Instant Challenges section in Roadmap (page 41) or from the Instant Challenge Practice Set ■ Be sure to reflect on the experience ■ Allow the team to redo the Challenge in a new or better way after they reflect
30 – 90 minutes	Plan the project ■ Choose two or three benchmarks from the lists beginning on page 31
15 minutes	Reflect on meeting results
20 minutes	Instant Challenge practice – choose another Instant Challenge or redo a previous Instant Challenge
20 minutes	Set goals for the next meeting. Decide who is bringing a snack.
NOTES:	

FINALIZING PLANNING AND BEGINNING TO CREATE SOLUTION (3 TO 6 MEETINGS)

Meeting Agenda (Example)

Day & Time of Meeting: _____

TIME	ACTIVITY
10 – 20 minutes	Connecting as a team ■ Have a snack ■ Review goals for the meeting ■ Review accomplishments from the previous meeting ■ Choose an activity from the team building section (page 85)
20 minutes	Instant Challenge practice ■ Complete one Instant Challenge from the Instant Challenge section of Roadmap (page 41) or from the Instant Challenge Practice Set ■ Reflect on the experience ■ Allow the team to redo the Instant Challenge in a new or better way after they reflect
30 – 90 minutes	Plan the project ■ Choose two or three benchmarks to work on from the lists on page 31
15 minutes	Reflect on meeting results
20 minutes	Instant Challenge practice – choose another Instant Challenge or redo a previous Instant Challenge
20 minutes	Set goals for the next meeting. Decide who is bringing a snack.
NOTES:	

WORKING ON SOLUTION
(4 TO 8 MEETINGS)

Meeting Agenda (Example)

Day & Time of Meeting: _____

TIME	ACTIVITY
10 minutes	Connecting as a team ■ Have a snack ■ Review goals for the meeting ■ Review accomplishments from the previous meeting
60 – 180 minutes	Create solutions ■ Team can divide the work and build solutions ■ Create opportunities for team members to check on progress and ask questions of other team members
20 minutes	Instant Challenge practice – choose another Instant Challenge or redo a previous Instant Challenge
15 minutes	Reflect on meeting results. Set goals for next meeting. Decide who is bringing a snack.
NOTES:	

PREPARING FOR PRESENTATION AT A TOURNAMENT OR SHOWCASE (2 TO 4 MEETINGS)

Meeting Agenda (Example)

Day & Time of Meeting: _____

TIME	ACTIVITY
5 minutes	Connecting as a team ■ Have a snack ■ Review goals for the meeting ■ Review accomplishments from the previous meeting
20 minutes	Instant Challenge practice ■ Complete one Instant Challenge from the Instant Challenge section of Roadmap (page 41) or from the Instant Challenge Practice Set ■ Reflect on the experience ■ Allow the team to redo the Instant Challenge in a new or better way after they reflect
30 – 120 minutes	Create solutions ■ Team can divide the work and build solutions ■ Create opportunities for team members to check on progress and ask questions of other team members
20 minutes – if time is available	Instant Challenge practice – choose another Instant Challenge or redo a previous Instant Challenge
15 minutes	Reflect on meeting results. Set goals for next meeting. Decide who is bringing snack.
NOTES:	

REVIEWING THE DI CHALLENGE EXPERIENCE
(1 TO 2 MEETINGS)

You and the team can decide how long to meet and what activities to do during your final meetings of the DI season. Review the benchmarks on page 31, find something fun to do together and celebrate! If you are moving to the next level of competition, the team will need to decide what, if anything, they want to change about their solution, set their goals, and plan the next meetings.

Meeting Agenda Form

Day & Time of Meeting: _____

TIME	ACTIVITY
5 minutes	Connecting as a team:
20 minutes	Instant Challenge practice and reflection:
30 – 120 minutes	Plan and create the Team Challenge solution:
20 minutes	Instant Challenge practice – choose another Instant Challenge or redo a previous Instant Challenge:
15 minutes	Reflect on meeting results:
NOTES:	

TEAM BENCHMARKS

Since the number of meetings and amount of time available to each team varies significantly, a strict timeline won't be helpful for most Team Managers. However, here are some team benchmarks that will help the team on track. **All of these benchmarks need to be accomplished by the team.**

Early Challenge Requirement Identification & Planning (Meetings 1- 6)

- Read and understand the Challenge.

- Complete the Challenge Requirements Identification practice worksheets (page 15).

- Complete a Challenge Requirements Identification worksheet (page 16) for each Challenge element.

- Complete a Deliverable Requirements Planning Chart (page 123) for each of the Challenge elements. Include Team Choice Elements and consider other mini-projects that the team needs to complete for their solution. This is listed as Step 2 of the project management process.

- Learn about open-ended questions and how to use them (pages 18 and 93).

- Learn about Published Clarifications and Team Clarifications (page 19).

- Complete the Team Interest Inventory survey (page 93).

- Review the instructions to create a Team Challenge project plan (page 105).

- Begin creating the project plan (not required, but will help the team track the solution and stay on schedule).

- Complete at least one Instant Challenge at every meeting.

Finalizing Planning and Beginning to Create the Solution (Meetings 3 – 10)

- Review the Scoring section of the Challenge and determine which deliverables need the most attention.

- Generate ideas to meet the requirements for each deliverable.

- Focus ideas and decide on which ones to pursue and create for each deliverable.

- Research how to create or build the deliverables needed in the Challenge.

- Learn skills necessary to create or build deliverables.

- Complete the project plan (not required, but will help the team track the solution and stay on schedule).
  - ★ Set project goals – complete the Team Project Goals worksheet (page 124).
  - ★ Review information on Resources, Constraints and Assumptions (page 113).
  - ★ Complete the Resources, Constraints and Assumptions worksheet (page 125).
  - ★ Consider the dependencies of the projects and complete the Deliverables & Dependencies worksheet (page 126).
  - ★ Read the section on Establishing Team Roles and Responsibilities (page 116).
  - ★ Decide who is responsible for which deliverables and tasks. Complete the Team Roles and Responsibilities worksheet (page 127).
  - ★ Complete a Milestones and Tasks worksheet for each deliverable (paged 128).
  - ★ Review the Resource Planning & Budget section (page 120) and complete a worksheet for each deliverable (page 129).
  - ★ Review the Risk Management section and complete a worksheet for each deliverable (page 130).

- Divide deliverables among team members using the completed Challenge Requirements Identification worksheet (page 16) and the Deliverable Requirements Planning Chart (page 123).

- Gather necessary materials.

- Begin experimenting and creating solutions.

- Complete at least one Instant Challenge at every meeting.

- Hold team check-ins at every meeting. Reflect on progress and plan the next meeting.

- Register for your Regional or Affiliate Tournament.

Working on Solution (Meetings 6 – 14)

- Complete a score check and review – Is the team meeting the scoring requirements of the Challenge? Do this task a few times while working on the solution.

- Finish the team project plan (optional).

- Continue working on deliverables.

- Hold team check-ins at every meeting. Reflect on progress and plan the next meeting.

- Complete at least one Instant Challenge at every meeting.

Preparing for Presentation at a Tournament or Showcase (Meetings 9 – 20)

- Complete a score check and review – Is the team meeting the scoring requirements of the Challenge? Do this task a few times while preparing for the Presentation.

- Review deliverables to determine if all plans are possible in the remaining time. As a team, decide if some deliverables should be eliminated and agree on which ones to eliminate.

- Finish all remaining deliverables.

- Complete the required paperwork: Tournament Data Forms (found in the Challenge), Declaration of Independence and Expense Report (found in Rules of the Road). Be sure to complete the number of copies listed in the Challenge.

- Plan for transportation of all solution items to the tournament or showcase venue.

- Ensure that parents understand the team's Challenge and solution. The Team Manager can provide the Challenge Preview, a copy of the Scoring section of the Challenge and an overview of the team's solution so parents understand what the team has accomplished.

Reviewing the Team's DI Challenge Experience (Final two meetings – usually after a tournament or showcase)

- Celebrate the completion of the solution!

- Discuss what you and the team learned and what the team might have done differently.

- Team Managers and parents can plan a celebration party.

- If you are moving to the next level of competition, review the plan and determine if the team wants to change anything before the next tournament. If they do, revise the plans, create a meeting schedule, and build the next version of the solution!

TM Tip: Don't worry if your team isn't as far along as you would like them to be. Remember: the value of the DI Challenge Experience lies in the way it allows teams to solve challenges on their own. Continue to encourage the team but remember that each team operates in its own way!

REFLECTION QUESTIONS AND ACTIVITIES

Include time for reflection at every team meeting.

REFLECTION QUESTIONS TO ASK YOUR TEAM:

- As a team, how are you doing overall? What are the strengths of your team at this point in the process?

- Where and how might your team improve? Has your team been using and following the provided project management tools and activities?

- Is everyone adhering to the team ground rules and deadlines set by your team?

- Are you comfortable with the number of ideas generated in this session? (Teams should strive for fluency and should generate more ideas than can be used.)

- Have you explored as many options as you can think of? Are there other ways you could encourage different ideas?

- Have you spent time trying to generate ideas that might seem crazy at first but push beyond the obvious solutions?

- How have you made progress toward a solution?

- Do you, as a team, need to return to idea generation to have more ideas to work with?

- Are you on track with plans and timelines? Have things changed? Should the timeline be adjusted or should new deadlines be set?

- Can you think of your ideal solution? What are ways your team can achieve that ideal solution?

- Have you decided on Team Choice Elements and integrated them into your solution?

- Are you checking the Published Clarifications? Have Published Clarifications changed your approach in any way? Do you need to ask for a Team Clarification?

- Have you encountered conflict? What are ways that you can work out conflict when it arises in the future? Can you think of encouraging words or activities that would help break the tension so the team can focus on the problem?

- What are your team's top priorities?

- Does your team need to acquire any new skills? What are ways to learn the skills needed?

- Think about the activities you've done in Roadmap. How is your team doing overall? What are your team's strengths at this point in the process? Where might you improve?

- Are you, as a team, effectively directing your ideas into solutions? Can you think of ways to improve this process? (It's important to remember that problem solving is a fluid process.) Can you think of an instance when your team benefited from returning to idea generation?

- Review Rules of the Road. Are you prepared for a tournament? Have you revisited Published Clarifications to make sure your solution fits within the guidelines of the Team Challenge?

REFLECTION ACTIVITY

Plan a Dress Rehearsal

Dress rehearsals help teams polish any rough patches in their solutions. Your team can learn how audiences respond to particular sections of the Presentation, and it can also learn where team members seem to have trouble. It is important for your team to become comfortable with the Presentation time limit, setup, audiences and live performance. You can invite parents, friends or other family members to see the show. You can even make it an event!

TM Tip: A dress rehearsal can be a great chance for the Team Manager to share information with parents or people interested in going to the tournament. If you can, provide tournament information, Presentation times, travel information and any other information parents may need.

TM Tip: When presenting your dress rehearsal, make sure to remember the rules of Interference. Inform, or remind, audience members about the rules, and make sure they don't provide input regarding the team's solution. The audience can cheer or celebrate along with the team, but the team's solution is the team's alone. Afterward, the team members should discuss and assess the Presentation on their own.

TM Tip: It is also helpful for the team to create a list of things that could go wrong with the Presentation. This can help the team prepare for potential mishaps. Additionally, it can be helpful to have the team present while the Team Manager "sabotages" the Presentation. The Team Manager calls, "Time Out!" and then can remove an element of the Presentation by pulling an extension cord from the wall, physically removing an item, or doing something similar.

GUIDING YOUR TEAM

GETTING READY FOR A TOURNAMENT

As a Team Manager, it is your responsibility to register your team for the tournament. Each Region and Affiliate has different registration procedures, so you will need to get in touch with a Tournament Director to make sure your team is ready and scheduled for the tournament. Your Affiliate Director can direct you to the right contact person. A full list of Affiliate Directors is available at DestinationImagination.org.

Review the Travel Guide for Teams

The Travel Guide for Teams is a resource published annually to help teams prepare for tournaments. It is made available in January and can be downloaded from the Destination Imagination website. The Travel Guide for Teams provides information about tournament officials, lists Challenge-specific site procedures and offers sample rubrics that Appraisers may use at the tournament. It also provides information related to keeping your team supporters informed.

Complete the Paperwork

Your team will need to prepare and bring copies of all required forms to the tournament. At every tournament level, you will need hard copies of the following forms:

- Tournament Data Form (five copies): A three-page form found at the end of the Team Challenge.

- Declaration of Independence (two copies): One copy is for the Team Challenge Presentation and the other is for Instant Challenge. This form can be found near the end of Rules of the Road.

- Expense Report (one copy): This report verifies the cost of your Team Challenge solution. It can be found near the end of Rules of the Road. (Note: This form is not required for the Improvisational Challenge.)

Take some time to have the team fill out the forms, make copies and keep them in a safe place where you'll remember them! If the team is not able to fill out the details entirely, add a date to your team calendar to remind the team to complete their paperwork. For Elementary Level teams only: Team Managers may fill out the form, writing out the words dictated by the team.

Interactive tournament forms are available for download at DestinationImagination.org. After your team members have decided on the information to include on each form, they can enter that information into the interactive form and print it. This will ensure that tournament officials can read your information, and it will make their job much easier!

Create a Toolkit

Be aware that transportation of props, backdrops, technical elements and other Presentation materials can often cause problems. Your team should work on preparing for any potential difficulties before you travel to your tournament. For example, your team could practice disassembling and reassembling props for transport. Additionally, your team should discuss any complex elements that may cause difficulties.

Questions to ask the team: What are the potential elements of your Team Challenge solution that may fail? What tools would be required to fix those elements? What tools do you need for general upkeep and maintenance?

Many teams create travel toolkits for tournaments to help them solve problems on the road. The team can pack replacement parts, needed tools and anything else the team may need just in case they encounter any trouble.

TOOLKIT WORKSHEET

List toolkit items to bring to the Presentation:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

FINAL CHECKLIST FOR PRESENTATION

Dedicate time for your team to finish any remaining details before traveling to a tournament. Here are some things to do if your team hasn't already done them:

- Make sure the team has completed the paperwork and you have the correct number of copies of each form.
- Check Published Clarifications to make sure the team's solution meets all requirements.
- Reread Rules of the Road and the Team Challenge. Is the team ready to go? Does the team have everything required?
- Inform parents and supporters about the location and time of the team's Presentation. Organize travel as necessary.
- Have the team practice breaking down, packing and rebuilding the Team Challenge Presentation materials.
- Review the creativity, critical thinking and Instant Challenge project management tools listed in the Instant Challenge section (page 41).
- Compile the repair toolkit. (Don't forget the duct tape!)
- Review the budget to ensure that the team's expenses fit within the Challenge budget limit.
- Smile and have fun!

INTERFERENCE

WHAT IS INTERFERENCE?

Imagine the self-confidence that happens when you work with a group of peers to solve a difficult challenge without any input or ideas from others. In Destination Imagination, only team members may contribute ideas and create the Team Challenge and Instant Challenge solutions. Help from non-team members—including parents, friends and the Team Manager—is called "Interference."

Read the Interference policy in Rules of the Road. Read it with your team members as well. Interference happens when someone other than the members of the team provides ideas, creates something used in the solution, or directs the team to solve the Challenge in a certain way. All solutions in Destination Imagination need to be team-imagined, team-designed, team-developed and team-created.

The Interference section in Rules of the Road explains what Interference is; however, many Team Managers are left wondering, what **can** they do?

Team Managers can:

- Answer questions about the Challenge and Destination Imagination rules. Your ultimate goal is to have the team members learn to find answers on their own. Have your team reread the Challenge, look up the answer in Rules of the Road, read the Published Clarifications and/or request a Team Clarification.

- Lead the project management process for the team. This is especially important for new or younger teams. As the team gains experience, teach the team to take over the management of the project.

- Reinforce the goals and plans set by the team. Once the team has planned their project, you can hold them to their plan and goals. At times, team members may want to give up if the original idea is not working. Encourage them to keep trying. If they want to change the plan, the change must be agreed on by the entire team.

- Teach skills the team has decided they need to know. For example, if the team has decided that they want to sew a costume and they want to learn how to sew, you can teach them or find someone else to teach them to sew; however, only a team member may stitch the team-created costume.

- Use Instant Challenges to teach skills and to overcome an issue the team is having with the Team Challenge. Instant Challenges are a great way to teach stage presence, building skills, and quick decision-making. While you want your team to work hard to find solutions when practicing Instant Challenge, you can ask a question or offer a suggestion if the team is stuck. (Remember: when the team is presenting an Instant Challenge at a tournament, you cannot say a word or interact with the team at all.)

- Guide the team through the creative process. Teach the team members to use the idea generating and focusing tools, and encourage them to build their idea lists. Younger teams will struggle to let go of their own personal ideas and the Team Manager can help them get past this. To avoid the standard arguments over who gets to write down the ideas (and for the sake of time), the Team Manager can write down the ideas, as long as the ideas are written exactly as the team states them – no editing. The Team Manager can ask clarifying questions to ensure that the idea is recorded correctly.

- Determine safety rules. If you think the skill the team wants to learn is not safe, you can say "no." However, the team will need to figure out another way to accomplish the goal. You cannot suggest other ways to get the job done. When you say "no" for a safety reason, be sure that it is really out of the team's ability level. Team members are often far more capable than adults believe them to be.

- Set rules for the meeting location. If the meeting is in your home, you can set rules about the use of your home. For example, you may want a rule about what can be eaten, or you may want a rule about where painting can occur. You may also need to enforce the rules of other meeting locations. If the meeting place has a rule against spray paint, the team will have to find another method of painting or another place to paint.

- Set the schedule based on your availability. If you can't be there, the team may not be able to meet. You can share the meeting responsibility with a co-manager or a team parent, but the schedule should be set based on your time first and then by how often the team wishes to meet.

- Ask open-ended questions. Avoiding Interference requires Team Managers to be aware of their personal goals and biases. When you are asking questions, be sure that you are not attempting to lead a team to a specific idea or solution. Be open to the team's ideas and encourage them to follow an independent path.

INTERFERENCE QUIZ

Review the following quiz with your team members to ensure everyone understands Interference.

Choose the all the answers that are not Interference:

1. A team member wishes to use welding in their solution.
   a. The Team Manager thinks that welding is not safe for the age and ability of the team, so he or she encourages the team to generate ideas for new ways to solve the part of the Challenge that might have needed welding.
   b. The Team Manager says, "No, use duct tape instead."
   c. The Team Manager asks, "Do you know how to weld or how you can learn to weld safely?"
2. After the team has left the meeting, the Team Manager breaks a prop.
   a. The Team Manager fixes the prop before the next meeting.
   b. At the next meeting, the Team Manager lets the team know that the prop is broken.
   c. The Team Manager says nothing.
3. The team decides that they need several materials.
   a. You take the team to the store. They choose the materials and you purchase the items for them.
   b. The team gives you a list of specific materials and you get everything on their list.
   c. The team lists paint but doesn't name the color of the paint. You grab what you want from the paint mistakes section at the hardware store.
4. The team wants to cut a piece of wood in a certain way.
   a. The team asks the hardware store employee to do a custom cut that they don't normally do for other customers.
   b. The team asks the hardware store employee to cut the wood in a manner that they usually do for other customers.
   c. The team figures out which tool they need to use to make the cut and asks the Team Manager to teach them how to use the tool.
5. The Team Manager notices that one section of the team's Structure is missing some glue.
   a. The team is busy working on painting the set, so the Team Manager adds the missing glue.
   b. The Team Manager asks the team if the Structure meets both the Challenge requirements and the team-defined requirements.
   c. The Team Manager allows the team to test the Structure without saying anything. When it collapses, the Team Manager asks the team to analyze what happened.

Answers to the Interference Quiz

1. A team member wishes to use welding in their solution.
   a. Not Interference – Ensuring the team's safety or encouraging them to generate a list of additional ways to solve the issue is not Interference.
   b. Interference – Team Managers cannot suggest direct solutions.
   c. Not Interference – Team Managers can help the team learn new skills.
2. After the team has left the meeting, the Team Manager breaks a prop.
   a. Interference – No one can contribute to the team's solution in any way, even if they broke the prop.
   b. Not Interference – Let the team know what happened; team members have to fix it.
   c. Interference – Not informing the team members about something that happened to their prop when it was out of their control would be contributing to the failure of the solution and is Interference.
3. The team decides that they need several materials.
   a. Not Interference – Team Managers can pay for the team's materials.
   b. Not Interference – Team Managers and others can purchase items for the team as long as they only purchase the items included in the team's list.
   c. Interference – The Team Manager cannot make decisions for the team, even very small ones.
4. The team wants to cut a piece of wood in a certain way.
   a. Interference – If the hardware store doesn't make the cut the team needs for other customers, the team members will need to figure out how to do it themselves.
   b. Not Interference – The team asks the hardware store employee to cut the wood in a manner that they usually do for other customers.
   c. Not Interference – Team Managers can teach the team skills they want to learn.
5. The Team Manager notices that one section of the team's Structure is missing some glue.
   a. Interference – No one but the team can contribute to the team's solution.
   b. Not Interference – Team Managers can remind the team of the Challenge requirements.
   c. Not Interference – Teams learn best from experimenting. Failure is a great teacher.

TM Tip: When your team attends a tournament, you will need to fill out a Declaration of Independence form and bring copies for tournament officials. The Declaration of Independence states that the team members solved the Challenge on their own without Interference. It will need to be signed by team members and Team Managers. The form can be found in Rules of the Road.

INTERFERENCE CONTRACT

Explain the Interference Policy to team members and their parents. Ask team members and parents to review the Interference Contract and sign it. These contracts are solely to help everyone understand and follow the rules of Interference. Keep the forms for your team records.

TEAM MEMBER: OUR TEAM OWNS EVERY PART OF OUR TEAM CHALLENGE SOLUTION

1. Every idea for every part of the solution must come from the members of our team. Our parents, friends, teachers and Team Manager must keep their ideas to themselves.
2. When someone offers to help us, or works on our solution in any way, we will say, "No thanks! We can do it ourselves!"
3. If we get stuck and can't figure out how to solve a problem that arises, we will create ideas and come up with another way to do it.
4. When we finish our solution, we can proudly sign the Declaration of Independence and know that the entire solution is ours.

Team Member Signatures: _____

Team Member Signatures: _____

TEAM MANAGER(S): MY TEAM OWNS EVERY PART OF ITS TEAM CHALLENGE SOLUTION

1. I can facilitate the team's understanding of the Challenge and rules, as well as help them to learn skills, but I must keep my ideas to myself and my hands off the team's solution.
2. Every idea for every part of the solution must come from the members of my team. They can figure it out for themselves even if it means that sometimes they will have to change their plans and do something another way.
3. At the team's request, I may acquire specifically requested materials for the team's use. At no time may I ever choose materials for the team without the team's input, and I may never select materials or take actions or ask questions with the idea of leading the team to a solution.
4. When my team does not know how to go about researching and/or acquiring information and materials, my role is to teach them the skills they will use to become independent learners for a lifetime. In other words, I may provide the team with multiple resources, but I may not select or lead the team to any aspect of its solution.
5. When my team is ready to turn its ideas into reality, I will stand by and manage. That means I may facilitate discussions and/or disagreements, help my team manage its time to meet its deadlines, make sure team members are working in a safe manner, acquire items requested by the team, and most importantly, ensure that each individual on the team is valued by the others.
6. When my team finishes its solution, I can proudly sign the Team Manager's line on the Declaration of Independence and know that the solution is the team's alone.

Team Manager Signature: _____

Team Manager Signature: _____

PARENT(S)/GUARDIAN(S): THE TEAM OWNS EVERY PART OF ITS TEAM CHALLENGE SOLUTION

1. I must keep my ideas to myself and my hands off the team's solution. I understand that completing a DI Challenge can be difficult at times, but I believe the team is capable of handling whatever they encounter and can overcome anything. I understand that, if I interfere, I send the message to the team that I do not trust that they are capable of creating the solution on their own.
2. Every idea for every part of the solution must come from team members. They must figure it out for themselves. That means that sometimes they will do things in a way that will take longer and/or might not be the most efficient or best way (in my opinion). I understand that this is a normal part of the process and I will not interfere.
3. When my child's team finishes its solution, I will be proud that the team members worked so hard and completed the project with their own hands and minds. I will be proud to say that they did it all by themselves!

Parent/Guardian Signature: _____

Parent/Guardian Signature: _____

INSTANT CHALLENGES

The Instant Challenge component of the Destination Imagination Challenge Experience allows your team to learn to assess a situation, define the problem, make a plan, and create solutions quickly. The skills learned through Instant Challenge prepare DI participants to handle making business and life decisions in rapidly changing situations.

In addition, Instant Challenge is worth 25% of your team's overall score at a tournament. Often, a solid Instant Challenge score will help a team significantly at a tournament, especially if Team Challenge scores are very close. The team should be diligent about practicing and preparing for all types of Instant Challenges. Although the Instant Challenges are never the same, there are certain skills that can drastically improve your team members' chances of solving any Instant Challenge and any problem or situation they may encounter in the future.

INSTANT CHALLENGE GENERAL PRACTICE PROCEDURE

1. The team stands around a table on which a copy of the Instant Challenge lies face down.

2. If the Instant Challenge requires materials, the materials will be on the same table. The team may not touch the materials until time starts.

3. When everyone is ready, the Team Manager flips over the Instant Challenge.

4. The Team Manager reads the copy of the Instant Challenge aloud. As soon as the Team Manager is finished reading, the timer starts and the team can begin working.

5. The Team Manager reads the time allowed for the Instant Challenge to the team and makes sure the team follows the timing. Since the team is not allowed to take any timing devices, including wristwatches, into the Instant Challenge room at the tournament, team members should practice asking for the time remaining in the Challenge. To ensure that the team members understand the procedures that will be followed in the Instant Challenge room, the Team Manager should only announce how much time is left if the team asks or if the Instant Challenge directs you to announce the time during the Challenge.

6. The Team Manager scores the team's solution to the Challenge. To help the team understand the scoring and reflect on their results, have the team score their solution.

REFLECTION/PROCESSING QUESTIONS

Afterward, it's important that the team members discuss their process. The Team Manager's job is to facilitate the discussion as necessary, without telling the team exactly what to do. However, the Team Manager may provide objective observation about team behavior as the team works through an Instant Challenge. For example, the Team Manager can ask questions such as:

- What could you have done differently?
- What was the most difficult part of the performance or the task?
- What could you do to improve in the future?

The Team Manager shouldn't provide answers to the reflection questions. Team members need to reflect and assess the process on their own based on objective information.

TM Tip: To help build strong critical thinking skills, the Team Manager needs to model for the team what objective information looks like. You can do this by:

- Repeating what a team member actually says without interpreting the meaning.
- Observing team members' behaviors while solving the Challenge.
- Taking notes as the team works so you can accurately report what you see.
- Recording the team so you can point out what is said or done and allow the team members to evaluate their solution based on their observations of the recording.

Don't worry about perfection, especially at the beginning of the season. Focus on having fun and having the team give its best effort! This is also a chance for team members to get used to the format, procedure and scoring of Instant Challenges. Pay particular attention to the scoring, which can help determine how to best solve the Challenge.

TM Tip: When your team is beginning to learn about Instant Challenges, start with Challenges that are simple to solve to give the team a chance to succeed together. As they gain experience, you can increase the difficulty of the Challenges. If the team is completely stuck on a Challenge, stop and have them try again on another day. If the team is still struggling, you can teach them about the materials they are using, talk them through potential solutions, or go back to an easier Challenge. Remember: processing after the Challenge, whether the team was successful or not, is an important part of the learning process. It will help the team members internalize what they learned.

TEAM ROLES FOR INSTANT CHALLENGE

Teamwork does not mean that all team members must be working together on the same thing at the same time. In fact, teams work better when they can divide up tasks into smaller and more manageable pieces. Below are some key team roles that may be useful as the team works through their Instant Challenge solution. The team could choose to assign similar roles for their Team Challenge as well!

The **Task Manager** is in charge of the overall development and implementation of a Task-Based Instant Challenge.

The **Performance Manager** is in charge of the overall development and implementation of a Performance-Based Instant Challenge.

The **Timekeeper** is in charge of asking the Appraisers for the amount of time that remains for the team to solve the Instant Challenge.

The **Materials Manager** is in charge of making sure that materials are used thoughtfully because most Instant Challenges do not offer unlimited quantities.

The **Score Manager** is in charge of keeping track of where the team will earn the most points in an Instant Challenge and making judgments about where the team should focus its time.

The **Flex Team Member** has the ability to float between numerous positions or fill in a new one if necessary.

Team members should practice taking on each role and expanding themselves into new roles that have not been defined here. The best teams are made up of those who understand and respect the roles of others while still being able to solve the Challenge.

TM Tip: Write each role on a different card or piece of paper. Have the team members randomly draw for a role to fulfill during an Instant Challenge. This gives each team member the opportunity to try different roles, to understand the importance of each role, and to discover the role that fits him or her best.

INSTANT CHALLENGES

PROJECT MANAGEMENT TOOL FOR INSTANT CHALLENGE

Instant Challenges are very short projects and can be managed with a simplified version of the project management process. Practice using this tool so the team becomes familiar with how to tackle every Instant Challenge. This form is not to be brought into the Instant Challenge room at tournament and is not part of tournament procedures. This tool is a method for the team to use in practice. The goal is to get them to use the Define, Plan, Do and Review steps automatically without relying on the form. You can find more information about project management on page 105.

STEP	QUESTIONS TO ASK/THINGS TO DO
DEFINE	Understand the requirements of the Challenge: ■ What type of Instant Challenge is it? ■ What do you need to have done at the end of the Instant Challenge? ■ What elements of the Instant Challenge receive score?
PLAN	Create a plan to complete the Challenge: ■ How much time are you going to dedicate to generating ideas? Practice generating ideas in 30 – 40 seconds. ■ What ideas do you have to meet the requirements of the Instant Challenge? ■ How can the materials be used? ■ What is your final idea? ■ Who is going to do what? Can you divide the work so it gets done on time? ■ What is your back-up plan if your first solution doesn't work? ■ How will you know when your solution is complete?
DO	Complete the Instant Challenge: ■ Are you checking your time regularly? ■ Is your solution working? If not, do you want to try your back-up plan? ■ Does everyone have a role? Is everyone fulfilling their roles? ■ Does your final solution meet the requirements of the Instant Challenge?
REVIEW	Discuss your team process and solution after completing the Instant Challenge: ■ Did you follow your plan? ■ What would you do differently next time? ■ What could you improve? ■ Did your team work well together?

INSTANT CHALLENGES

INSTANT CHALLENGE PROJECT MANAGEMENT PRACTICE TOOL

(To be used to practice Instant Challenge only.)

Give the team of copy of this form to use during Instant Challenge practice. Have the team complete the form after reading the Instant Challenge. Early in the season, the process will take longer than the time listed on the Instant Challenge, so give the team five extra minutes to complete the form. After they complete the form, have the team start the Instant Challenge. As the season progresses, the team should be able to run through the steps without the form and within the time limit of the Instant Challenge.

STEP	QUESTIONS TO ASK/THINGS TO DO
DEFINE	Understand the requirements of the Challenge:
PLAN	Create a plan to complete the Challenge:
DO	Complete the Instant Challenge:
REVIEW	Discuss your team process and solution after completing the Instant Challenge:

TM Tip: You may find that some Instant Challenges are impractical for you to set up for your team. You can have your team read those Instant Challenges and use this form to imagine how they might solve it. This will prepare the team for the larger Instant Challenges that may be encountered at tournaments.

INSTANT CHALLENGES

IDEA GENERATING/FOCUSING FOR INSTANT CHALLENGE

Choose an Instant Challenge your team has not solved before. You'll guide your team through the creative process to discuss different ways to approach the Challenge.

Idea Generating

Have your team think of as many approaches to the Challenge as possible. To learn the technique, ask the team members to say their ideas out loud, and have one team member write every idea down on a chalkboard, whiteboard, flip chart or on plain paper.

While generating ideas, encourage the team to think of as many ideas as possible, and make sure to defer judgment (both yours and the team's). When generating ideas, there is no such thing as a bad idea.

When the team cannot generate any more ideas, the members vote on the most out-of-this-world idea of the bunch. Make this something for the team to aspire to in every idea generating session.

Idea Focusing

Next, your team should focus the ideas down into workable solutions.

Ask the team to verbalize what they think are the most promising ideas. Why are the ideas promising? What about the other ideas makes them less promising?

Define, Plan, Do, Review

The team can complete the Project Management for Instant Challenge tool to help them organize their ideas (page 45).

Complete the Instant Challenge

When the team has finished generating and focusing ideas, have the team solve the Challenge, but give them a shortened amount of time to solve it. Then score the Challenge.

REFLECTION/PROCESSING QUESTIONS

- Did the idea generating time help? Why?
- How can the team get better at using the creative process for Instant Challenges?
- How does the team incorporate the creative process in each Instant Challenge solution?
- What are ways you might more effectively approach a Task-Based Instant Challenge? How would you approach a Performance-Based Instant Challenge?
- How might you ensure that you are considering as many ideas as possible in a short timeframe?
- How has your teamwork changed since your first Instant Challenge?
- Have you defined team roles? Are you finding team roles to be helpful?

The team can complete this exercise several times. The goal is to get the team to do all of the steps as quickly as possible. Defining the Challenge, idea generating, and planning should take less than a minute.

A FULL SHOPPING LIST

The following list contains the materials needed for the Instant Challenges and other exercises included in Roadmap. The quantities listed below are for completing each Instant Challenge or exercise once. You will want to have additional materials available so your team can attempt the Instant Challenges or exercises more than once and so you can create your own Instant Challenges for them to practice.

Challenge Materials

- ☐ 2 balloons
- ☐ 2 aluminum foil sheets
- ☐ 5 binder clips
- ☐ 7 chenille stems (pipe cleaners)
- ☐ 2 pairs of chopsticks
- ☐ 2 clothespins
- ☐ 9 colored paper sheets (variety of colors)
- ☐ 3 cotton balls
- ☐ 13 drinking straws
- ☐ 1 egg carton (empty)
- ☐ 1 envelope
- ☐ 1 piece of fabric

- ☐ 2 golf balls
- ☐ 19 mailing labels
- ☐ 2 marbles
- ☐ 1 stick of modeling clay
- ☐ 4 sheets of newspaper
- ☐ 5 sheets of large flipchart paper
- ☐ 15 paper clips (regular)
- ☐ 2 jumbo paper clips
- ☐ 3 paper cups
- ☐ 5 paper towels
- ☐ 2 paper plates
- ☐ 2 pencils (unsharpened)
- ☐ 5 Ping-Pong balls

- ☐ 10 plastic cups (16oz)
- ☐ 2 spoons
- ☐ 40 sticky notes
- ☐ 24 rubber bands
- ☐ 1 ruler
- ☐ 25 sticks of spaghetti
- ☐ 18ft (7.25m) of string
- ☐ 1 Styrofoam cup
- ☐ 25 toothpicks
- ☐ 2 twist ties
- ☐ 2ft (60cm) of yarn
- ☐ 1 zipper

Everyday Team Materials

- ☐ index cards (2 packages)
- ☐ highlighters
- ☐ 1 stopwatch/timer
- ☐ flipchart paper or whiteboard

- ☐ pens/pencils
- ☐ 1 measuring tape
- ☐ colored markers (4 boxes of 8)
- ☐ 2 pairs of scissors

- ☐ 1 yardstick (meterstick)
- ☐ 1 ream of paper

Around The House

- ☐ 2 hand towels
- ☐ Hula hoop
- ☐ 2 calendars

- ☐ 1 button
- ☐ 1 prize (Race for Fluency)
- ☐ 2 bath towels

- ☐ 1 rag
- ☐ 2 wash cloths
- ☐ 2 cardboard boxes

DEVELOPMENTAL INSTANT CHALLENGES

These first Instant Challenges are designed for your team to begin working together and should be done in order. The goal is to have the team become familiar with the Instant Challenge process.

LET'S HEAR IT

Have your team stand in a circle. Choose one team member to go first. That team member will say a word and then high-five the person on his or her right. The team should try to remember all of the words. The next person will say the first word that comes to mind after hearing the last word and then will turn and high-five the next person. The game continues around the circle as long as the team wants, provided they can remember all the words that have been said.

At some point, the Team Manager will shout, "Let's hear it!" Then the team will work its way from the current word back to the original word. We suggest having the movement of the game continue to the right so team members have to remember what others have said.

Alternatively, you can encourage the team to create a full sentence, one word at a time. Once the Team Manager shouts, "Let's hear it!" the next team member says the first word of the sentence that was created by team, and following team members try to work their way one word at a time through the whole sentence.

If your team masters the full sentence activity, you can try having them create an original story, one word at a time. For this activity, the team only has to work through the story one time. The goal will be to create an understandable story that lasts more than two sentences and has a beginning, middle and end. The Team Manager should supply a theme or made-up story title.

DID YOU HEAR THAT?

A Foley artist is the person who makes sound effects for movies. Today, your team is going to try your hands at being Foley artists!

The team must separate into two groups: the Foley artists and the actors. Take a few minutes to plan and practice a short performance that incorporates at least 4 sound effects. The subject matter isn't important as long as the performance has a beginning, middle and end. Your Foley artists can use the materials around the room to help make their sound effects. If you want to, reverse roles and try again!

- How did your team decide who would be in which group?
- If you reversed roles, did the sound effects and/or the performance improve? If so, how?
- Were the sound effects really important to the story? If so, how?
- How creatively did the Foley group use objects to produce the sound effects?
- Were all three parts of the story present? Describe the beginning, middle and end of the story.

TM Tip: Take some time to get comfortable with performances. Your team won't know the type of Instant Challenge they will face at the tournament. Your team will also have to present their Team Challenge solution to a live audience. Practicing Instant Challenge is a great way for your team to learn the rhythms of working with their teammates and build trust in improvisation and presentation.

STRANDED

Use this activity to kick-start the team's performance skills. The premise is simple: a storm has trapped office workers (i.e., your team) in their office (i.e., the team's meeting room) for the weekend. Identify the type of storm that is occurring. The team will create a performance about how the office workers survive the weekend, using the materials that are available in the room. Your team will have up to 4 minutes to plan and prepare a performance about the weekend and 2 minutes to perform.

BEING A GOOD SPORT

This game requires at least 2 athletes, 2 judges, a host and a co-host. The host gets an everyday activity from the Team Manager. The everyday activity they receive becomes the "sport" that the "athletes" will be attempting. An example of an everyday activity would be "dishwashing" or "tying shoes." The host speaks with the athletes for a minute and then allows the athletes to begin to warm up.

While the athletes are warming up, the host will throw the commentary over to the co-host who will be joined by an expert. They will talk for a minute and then a team member will act as a buzzer, which means the competition has begun. The athletes then pantomime doing the everyday activity in a very physical, intense and often, a ridiculous way. Once the buzzer ends the period, the athletes debrief with the host and then receive scores from judges.

> **TM Tip:** You may rearrange the roles of team members based on what you wish to accomplish. For example, if you believe the team needs to work on communication, it might be useful to have multiple athletes competing and pantomiming in different ways while the commentators remark on various things going on in the scene. You can also create new roles, such as a coach, to enhance the scene.

MATERIALS MATTER

TYPES OF MATERIALS

The materials used in designing Instant Challenge solutions can usually be described as having properties that allow them to function in one or more of the following ways:

- Extenders: used to achieve length

- Connectors: used to fasten

- Controllers: used to contain, confine and carry

MAKE MATERIALS WORK

Take the time to encourage the team to discover ways to interact with common materials and better understand the materials' properties. Although many materials can easily fit into one type of function, virtually all of the materials can function as an extender, connector and controller. This knowledge will not only help your team use materials that are supplied for Instant Challenges, but will also help them look at how to repurpose items or use them in unique and creative ways in the Team Challenge solution. For the following materials, as a team, come up with as many different uses as possible for each item. Try to create at least 20 different uses for each material. Uses may be as functional or as off-the-wall as you would like.

- Straw

- Paper clip

- Envelope

- Chenille stems (pipe cleaners)

- Piece of paper

- Tape

- Labels

How might you use each of these materials as an extender, as a connector and as a controller?

THINK OF COMBINATIONS

- Two straws stuck together, one inside the other, can serve as a longer extender.

- A straw stuck into a piece of clay will stand erect to help build a tower.

- Using its own glue, an envelope can be stuck to a rolled piece of paper to create a device like a paper ladle.

- Looking at the materials used for the Mini-Challenge Blitz (page 51), what are some other combinations that could help the team? Can the team combine items to create three extenders, three connectors and three controllers?

EXTENDERS	CONNECTORS	CONTROLLERS
1	1	1
2	2	2
3	3	3

MINI-CHALLENGE BLITZ

FOCUS

Innovation and Design Process, Technical Design and Construction, Teamwork

Use the team's energy from the first activity to move into this activity. This activity requires rapid-fire thinking and also invites the team to explore the physical properties of common Instant Challenge materials. First, simply go through the four Mini-Challenges in order. After the team has attempted all four, go through the Materials Matter worksheet. If the team wants to—and if you have the time and materials—you can do the Mini-Challenge Blitz again. (You can also use it much later to reinforce the lessons learned.)

MINI-CHALLENGE 1

Challenge: Create a device that will move a Ping-Pong ball across a tabletop from one side to the other without falling. The team is only allowed to operate the device and may not directly touch the Ping-Pong ball.

Time: 4 minutes

Materials: 1 envelope, 1 clothespin, 1 binder clip, 1 mailing label, 2 straws, 1 Ping-Pong ball

MINI-CHALLENGE 2

Challenge: Build a bridge between two chairs that will support the weight of a golf ball for 10 seconds.

Time: 4 minutes

Materials: 1 paper plate, 1 rubber band, 1 clothespin, 2 jumbo paper clips, 3ft (90cm) of string, 1 golf ball

MINI-CHALLENGE 3

Challenge: Build a tower that will raise the golf ball and Ping-Pong ball above the table as high as possible while holding two marbles.

Time: 4 minutes

Materials: 2 marbles, 1 index card, 3 straws, 3 paper clips, 1 golf ball, 2ft (60cm) of string, 1 Ping-Pong ball

MINI-CHALLENGE 4

Challenge: Tell the tale of three great creations: a device, a bridge, and a tower. Use only gestures. You may plan using words, but you must present non-verbally. Include the three other Mini-Challenges in the story.

Time: 4 minutes (2 minutes to plan story with words, 2 minutes to present non-verbally)

PROCESSING QUESTIONS
- How did your team delegate responsibilities?
- Were there one or more team members who were really strong at building? Planning? Generating ideas? Focusing ideas?
- How did your team respond to the stress of doing multiple activities in a row?

SPAGHETTI STRUCTURE

FOCUS
Innovation and Design Process, Technical Design and Construction, Teamwork

CHALLENGE
Your TASK is to build a freestanding structure that is as tall as possible and is made only of spaghetti and mailing labels.

TIME
You will have up to 2 minutes to discuss strategy and up to 6 minutes to build your structure.

PROCEDURE
Part One (2 minutes): Discuss strategy.

Part Two (6 minutes):

- Using only the materials given, build a structure on the floor that is as tall as possible.
- You should also try to use the materials in different and creative ways in your structure.
- You may measure the height of the structure at any time, and the structure must be stable for long enough to be measured.

MATERIALS

☐ 25 sticks of spaghetti

☐ 9 mailing labels

☐ yardstick (meterstick) to measure the structure

SCORING

A. 3 points for each full inch of height of your structure.
B. Up to 20 points for how creatively you use the materials.
C. Up to 20 points for how well your team works together.

NOTES
How did the team do? Use this space to make some notes to read later. This will help the team track its progress.

_____

_____

PROCESSING QUESTIONS
- Did all team members contribute to the creation of the tower?
- How did each person contribute differently?

TM Tip: In this activity, the team will experience the entire creative process for the first time. Please refer to the Educational Foundations of Destination Imagination section (page 3) for more information about the creative process.

IT HAPPENED HERE:
GLOBAL COMPETENCY MINI-CHALLENGE

FOCUS
Research, Acting, Story Development, Theater Arts

CHALLENGE
Create a presentation about an important location from the past.

TIME
You will have up to 1 hour to create and practice your presentation. You will have 4 minutes to perform.

THE SCENE
There are many locations around the world that are important to history. For example, in Kitty Hawk, North Carolina, the Wright brothers flew the first successful airplane flight; the Berlin Wall fell in Germany; the first known Olympics were held in Greece. To solve this Challenge, your team should research important events that took place in a country other than your team's own. Make sure to identify the specific location where each event took place. Choose one event and create a skit that creatively tells how the event changed that location. Be sure to include the location and the important event.

MATERIALS

- ☐ 5 sheets of colored paper
- ☐ 1 egg carton
- ☐ 7 chenille stems (pipe cleaners)
- ☐ 2 boxes (any size)

- ☐ 1 sheet of aluminum foil
- ☐ 8 colored markers
- ☐ 25 toothpicks
- ☐ 1 rag (any size and color)

SCORING

A. Up to 20 points for the creativity of your performance.
B. Up to 20 points for the portrayal of the location.
C. Up to 30 points for the creativity of the portrayal of the important event and how it changed the location.
D. Up to 10 points for your creative use of materials.
E. Up to 20 points for how well your team works together.

PROCESSING QUESTIONS

- Why did you choose the particular location and event?

- How did you research your location and event? What did you learn about conducting research to inform your Team Challenge solutions?

- Did you learn anything about the location that you didn't know before?

PRACTICE INSTANT CHALLENGES

The following Instant Challenges can be used in any order and are designed to help your team continue to build Instant Challenge skills. Choose Instant Challenges that best suit your team's skill level. Additional Instant Challenges are available in the Resource Area.

TIME MACHINE

FOCUS
Innovation, Improvisational Acting, Story Development, Theater Arts, Teamwork

CHALLENGE
Your team is to present a PERFORMANCE in which modern inventions are explained to someone from the past.

TIME
You will have up to 4 minutes to create a skit involving time travel in which modern inventions are explained to someone from the past. You will then have up to 2 minutes to present a PERFORMANCE.

THE SCENE
Your team has been transported back in time. You don't have any luggage, but you do have some modern inventions.

Part One (4 minutes): On the table are 10 index cards. On the back of each card is the name of a modern invention. Your team will begin by choosing 5 of these cards. You are to prepare a skit where your team has traveled back in time. You meet a person from the past who is interested in what the modern inventions are. Choose 3 of the inventions listed on the cards to include in your skit.

Part Two (2 minutes): Present your PERFORMANCE. Be sure your skit has a beginning, a middle and an end and that you explain to what time period you have traveled.

MATERIALS
Your team will have a piece of paper and a pencil to use as you plan and present your PERFORMANCE.

> **Note to Team Manager:** Create a stack of 10 index cards with a modern invention printed on each card.

SCORING

    A. 10 points if your PERFORMANCE has a beginning, a middle and an end.
    B. 10 points if you include to what time period you have traveled in your PERFORMANCE.
    C. Up to 10 points each (30 points maximum) for how creatively you explain the modern inventions to the person from the past.
    D. Up to 30 points for the creativity of your PERFORMANCE.
    E. Up to 20 points for how well your team works together.

PROCESSING QUESTIONS
- How did your team make the decision on which three inventions to include in the skit?
- Do you think being given the three inventions made the story more difficult to tell? Why or why not?
- How did each person contribute differently?

Modern Inventions

Automobile	Lawn Mower
Microwave	Computer
Telephone	Electric Light
Refrigerator	Television
Toaster	Velcro®

INSTANT CHALLENGES

THE MYSTERIOUS ISLAND

FOCUS
Innovation, Improvisational Acting, Story Development, Theater Arts, Teamwork

CHALLENGE
Your team is to present a PERFORMANCE in which you discover a new island and its inhabitants, and find a way to communicate with them.

TIME
You will have up to 4 minutes to use your IMAGINATION and the CREATIVE PROCESS to create a skit about a newly discovered island and its inhabitants and then up to 2 minutes to present your PERFORMANCE.

THE SCENE
While traveling around the world, your team stumbles across a previously undiscovered island which is inhabited by a mysterious group of inhabitants with their own language. You must find a way to communicate with them.

Part One (4 minutes): Plan and practice your PERFORMANCE.

Part Two (2 minutes): Present your PERFORMANCE. Make sure your PERFORMANCE has a beginning, a middle and an end and that you include how you communicate with the inhabitants of the island.

MATERIALS
Your team will have a piece of paper and a pencil to use as you plan and present your PERFORMANCE.

SCORING
- A. 20 points if your PERFORMANCE has a beginning, a middle and an end.
- B. Up to 30 points for the creativity of how you communicate with the inhabitants.
- C. Up to 30 points for the creativity of your PERFORMANCE.
- D. Up to 20 points for how well your team works together.

PROCESSING QUESTIONS
- Which aspect of the Challenge was worth the most points?
- Did your strategy in the planning stage of Part One take this into consideration?
- During the performance, did team members face one another while conversing?
- Did you face the Appraisers? Why is it important to face the Appraisers?
- Which part of the performance worked best and why?

REMIX

~~~~~~

FOCUS
Innovation, Improvisational Acting, Story Development, Theater Arts, Teamwork

CHALLENGE
Your team is to present 2 PERFORMANCES that include the same characters and location but are completely different in other ways.

TIME
You will have up to 3 minutes to plan and practice your PERFORMANCES. You will then have up to 2 minutes to present your first PERFORMANCE and up to 2 minutes to present your second PERFORMANCE.

THE SCENE
Part One (3 minutes): Plan and practice your PERFORMANCES. Your PERFORMANCES should include the same characters and location, but be completely different in other ways.

Part Two (2 minutes for each PERFORMANCE): Present your PERFORMANCES. Be sure that each PERFORMANCE has a beginning, a middle and an end.

MATERIALS
Your team will have a piece of paper and a pencil to use as you plan and present your PERFORMANCES.

SCORING

A. 10 points (20 points maximum) for each PERFORMANCE that has a beginning, a middle and an end.
B. Up to 10 points each (20 points maximum) for the creativity of the characters and the location.
C. Up to 20 points for the creativity of how different the 2 PERFORMANCES are.
D. Up to 10 points each (20 points maximum) for the creativity of each PERFORMANCE.
E. Up to 20 points for how well your team works together.

PROCESSING QUESTIONS

- How difficult was it using the same characters and location but making the story completely different?

- Why is it important to have a good plan before doing a Challenge where only part of the solution changes?

- Did you practice? Do you think practice is important for the two performances in this Challenge?

CHANCE MEETING

FOCUS
Innovation, Improvisational Acting, Story Development, Theater Arts, Teamwork

CHALLENGE
Your team is to present a PERFORMANCE in which 3 unrelated people meet.

TIME
You will have up to 4 minutes to create a skit in which 3 unrelated people meet. You will then have up to 2 minutes to present a PERFORMANCE in which you show the meeting.

THE SCENE
Part One (4 minutes): On the table are 10 cards. A different person is listed on the back of each card. Select 5 cards and then choose 3 of the people listed on the cards to include in your PERFORMANCE. Use the rest of Part One to identify a reason why these people have come together, as well as to plan and practice your PERFORMANCE.

Part Two (2 minutes): Present your PERFORMANCE in which you show why these people have come together. Make sure you include all 3 characters in your skit and that your skit has a beginning, a middle and an end.

MATERIALS
Your team will have a piece of paper and a pencil to use as you plan and present your PERFORMANCE.

Note to Team Manager: Cut out the cards on page 60 for this activity.

SCORING
    A. 10 points if your PERFORMANCE has a beginning, a middle and an end.
    B. 10 points for including all 3 characters in your PERFORMANCE.
    C. Up to 30 points for the creativity of why these people have come together.
    D. Up to 30 points for the creativity of your PERFORMANCE.
    E. Up to 20 points for how well your team works together.

PROCESSING QUESTIONS
- Which scoring element was the easiest for the team? Why?

- How did you decide where the unrelated people would meet?

- Which part of the story was the easiest to think up and which was the hardest? Why?

People Cards

Cook

Singer

Football Player

Police Officer

Dancer

Doctor

Teacher

Salesperson

Truck Driver

Movie Star

EVENTS TO REMEMBER

FOCUS
Innovation and Design Process, Strategic Planning, Experimentation, Teamwork

CHALLENGE
Your TASK is to create a non-verbal communication system to convey important events on a calendar.

TIME
You will have up to 4 minutes to divide into 2 groups, develop your non-verbal communication system and practice. You will then have up to 4 minutes to communicate important events and when they are planned.

SETUP
In the center of the room is a room divider. On one side of the room divider is a table with materials that can be used to communicate the names of events and when each will happen. On the other side of the room is a second table with 20 sticky notes labeled with the events and a monthly calendar that has 31 days.

PROCEDURE
Part One (4 minutes): Divide your team into 2 groups. Each group will go to a different table and they should not be able to see the other table. Develop a non-verbal communication system that will allow the group at the first table to communicate the names of the events to be placed on the calendar by the second group. The first group may only use the materials on their table to communicate the events. During this part of the Challenge, the first group will be given a practice list of 10 calendar events.

Part Two (4 minutes): Use your non-verbal communication system to help the second group place the events on the calendar in the correct days of the month. The first group will be given a new list of events and their dates on the calendar to communicate. Using the sticky notes, the second group should place each event on the correct date on the calendar. During this part of the Challenge, no team member may talk or cross the room divider.

MATERIALS
First Group

- ☐ 1 paper cup
- ☐ 1 zipper
- ☐ 1 paper plate
- ☐ 2 rubber bands
- ☐ 20 sticky notes
- ☐ 1 binder clip

- ☐ 1 button
- ☐ 12in (30cm) string
- ☐ 1 sheet of newspaper
- ☐ 1 blank calendar
- ☐ List of important dates

The button and zipper may NOT be damaged.

Second Group

- ☐ 1 blank calendar
- ☐ 20 sticky notes

NOTE TO TEAM MANAGER: Using the list of important events provided in this Instant Challenge, create 2 different lists of 10 important events. One list will be for the team to practice in Part One, and the other will be for the team to present in Part Two. Provide two calendars, one for each group. Also provide Group 2 with 20 sticky notes with one important event printed on each.

INSTANT CHALLENGES

SCORING

    A. 5 points (50 points maximum) for each event successfully communicated in order in Part Two.

    B. Up to 30 points for the creativity of your communication system.

    C. Up to 20 points for how well your team works together.

PROCESSING QUESTIONS

- Did you find the materials useful in developing your non-verbal communication system? How else could you have used them?

- How successful was your non-verbal communication system? Did you find yourself thinking in different ways without the use of words to convey your ideas?

Important Events

School Begins	My Party	Go Shopping	Dance Class
Dog Show	Snow Storm To Arrive	Math Test	Bake Cookies
Change Socks	Soccer Practice	Fly To The Moon	Aunt Visiting
Singing Lessons	Dinner Out	Finish Reading My Book	Take A Nap
Tryouts For The Play	Wash My Cat	Dentist Appointment	Tour The Airport

BALANCING ACT

FOCUS
Innovation and Design Process, Technical Design and Construction, Teamwork

CHALLENGE
Your TASK is to build a structure that is as tall as possible and then balance a ruler on it. For this Challenge, "balance" means that the ruler is at least 6in (15cm) above the floor and only touches the structure in one area that measures 1in (2.5cm) or less.

TIME
You will have up to 5 minutes to build your structure and then up to 1 minute to balance a ruler on it.

SETUP
In the center of the room is a taped square. There is also a table with materials and a ruler.

PROCEDURE
Part One (5 minutes): Use the materials on the table to build a structure that is as tall as possible within the taped square. You will also want your structure to be able to balance a ruler. You may practice balancing the ruler in Part One, but at the end of Part One, the ruler may NOT be on the structure. At the end of Part One, the height of the structure will be measured.

Part Two (1 minute): Balance a ruler on the structure for at least 5 seconds. The ruler may only touch the structure in one area that measures 1in (2.5cm) or less. When balancing the ruler, you may only touch the ruler and not the structure. If you did not finish building your structure in Part One, you may continue in Part Two. When your structure is complete, time will stop briefly to measure the height of the structure. You may then use any remaining time to balance the ruler.

MATERIALS
- ☐ 4 straws
- ☐ 1 Styrofoam cup
- ☐ 4 paper clips
- ☐ 2 twist ties
- ☐ 2 pencils
- ☐ 4 index cards
- ☐ 2 rubber bands
- ☐ 1 sheet of newspaper
- ☐ 1 ruler

The ruler may NOT be damaged. Your team will also have a yardstick (meterstick), but this may NOT be damaged and may not be part of your structure.

SCORING
A. 10 points if you have a completed structure in the taped square at the end of Part One.
B. 2 points (40 points maximum) for each inch (2.5cm) of height of your structure measured before the ruler is added.
C. 10 points if the ruler balances on the structure for at least 5 seconds in Part Two.
D. Up to 20 points for the creativity of your structure.
E. Up to 20 points for how well your team works together.

PROCESSING QUESTIONS
- Which materials would you like to have had more of? Why?
- Which materials were the easiest to work with for building your structure?
- Which materials were the most difficult to use?
- Which element of the Challenge was worth the most points? How did that affect your strategy for solving the Challenge?

GIFT CLUB

FOCUS
Innovation and Design Process, Technical Design and Construction, Theater Arts, Teamwork

CHALLENGE
Your TASK is to create a club that delivers a different gift every 3 months and then to present a PERFORMANCE in which you persuade others to join your club.

TIME
You will have up to 5 minutes to create a club that delivers a different gift every 3 months. You will then have up to 2 minutes to present a PERFORMANCE in which you persuade the others to join your club.

THE SCENE
Part One (5 minutes): Create a club that delivers a different gift every 3 months. Use the materials to create 1 or more examples of the gifts. You should also use Part One to plan and practice your PERFORMANCE.

Part Two (2 minutes): Present a PERFORMANCE in which you persuade the others to join your club.

MATERIALS
- ☐ 1 piece of aluminum foil
- ☐ 4 straws
- ☐ 4 index cards
- ☐ 2 paper clips
- ☐ 2 pieces of paper
- ☐ 4 pieces of colored paper
- ☐ 2 rubber bands
- ☐ 4 mailing labels
- ☐ 1 box of markers
- ☐ 2 pairs of scissors

The markers and scissors may NOT be damaged and may NOT be part of your sample gift(s). Your team will also have an additional piece of paper and a pencil to use as you plan and present your PERFORMANCE.

SCORING
- A. 20 points for the creativity of your gift club.
- B. 30 points for the creativity of your sample gift(s).
- C. 30 points for the creativity of your PERFORMANCE.
- D. 20 points for how well your team works together.

PROCESSING QUESTIONS
- What are some other solutions that your team could have come up with? Did you consider any other solutions or use your first idea?
- Did you try using a generating or focusing tool to help you come up with options?
- Did everyone contribute evenly to the solution? Were roles assigned to complete the solution? Do the same team members seem to be assuming the same roles for each Instant Challenge?

TOWEL TOWER

FOCUS
Innovation and Design Process, Technical Design and Construction, Teamwork

CHALLENGE
Your TASK is to create a freestanding tower that is as tall as possible. For this Challenge, freestanding means that the tower is NOT attached to anything.

TIME
You will have up to 5 minutes to build your tower.

SETUP
In the center of the room is a table with materials.

PROCEDURE
Use the materials on the table to build a tower that is as tall as possible. At the end of time, or sooner if you wish, the height of the tower will be measured.

MATERIALS
☐ 2 wash cloths
☐ 2 bath towels
☐ 3 binder clips
☐ 10 rubber bands

☐ 2 hand towels
☐ 5 paper towels
☐ 24in (60cm) of yarn

The wash cloths, bath towels and hand towels may NOT be damaged. Your team will also have a measuring tape but this may NOT be part of your tower and may NOT be damaged.

SCORING
A. 10 points if you have a tower that is at least 18in (45cm) tall when measured.
B. 2 points (50 points maximum) for each inch (2.5cm) of height of your tower.
C. Up to 20 points for how creatively you use the materials.
D. Up to 20 points for how well your team works together.

PROCESSING QUESTIONS
- Did some of the team members fill different roles in this Challenge?
- What was the most difficult part of this Challenge?
- Can you think of another way you could have built the tower so it could have been even taller?

HIGH (TECH) FASHION

FOCUS
Innovation, Improvisational Acting, Story Development, Theater Arts, Teamwork

CHALLENGE
Your TASK is to make at least 2 items of technological fashion and then to present a PERFORMANCE in which you show your fashions. For this Challenge, "technological fashion" is something that can be worn that also makes use of technology.

TIME
You will have up to 4 minutes to create items for a show of technological fashion and then up to 2 minutes to present your PERFORMANCE.

THE SCENE
Part One (4 minutes): Use the materials on the table to create at least 2 items of technological fashion. The items must be able to be worn and also use technology in some way. You should also use Part One to plan and practice your PERFORMANCE.

Part Two (2 minutes): Present your PERFORMANCE. Be sure that you include at least 2 items of technological fashion in your show.

MATERIALS

- ☐ 2 sheets of newspaper
- ☐ 4 rubber bands
- ☐ 6 mailing labels
- ☐ 6 index cards

- ☐ 2 balloons
- ☐ 1 hula hoop
- ☐ 1 box of markers

The markers may NOT be damaged and may NOT be part of your PERFORMANCE.

Your team also will have a piece of paper and a pencil to use as you plan and present your PERFORMANCE.

SCORING

    A. 10 points if you include at least 2 items of technological fashion in your PERFORMANCE.
    B. Up to 20 points (40 points maximum) for the creativity of each piece of technological fashion.
    C. Up to 30 points for the creativity of your PERFORMANCE.
    D. Up to 20 points for how well your team works together.

PROCESSING QUESTIONS

- Did your team do a better job with the task or the performance? Why?

- Was it the ideas or the materials that made the fashion pieces creative?

- What made the performance creative?

SWITCH OUT SQUARES

FOCUS
Innovation and Design Process, Technical Design and Construction, Teamwork

CHALLENGE
Your TASK is to create devices to launch cotton balls and Ping-Pong balls and to create a way to catch and contain the balls after they have been received.

TIME
Your team will have up to 4 minutes to create a device to launch Ping-Pong balls and cotton balls and then up to 2 minutes to use the device to move balls for score.

SETUP
On the ground are two 1ft x 1ft (30cm x 30cm) taped areas (A & B) spaced 5ft (1.5m) apart from one another. The cotton balls are in one square and the Ping-Pong balls are in the other.

PROCEDURE
Part One (5 minutes): Your team will design and build a device to launch Ping-Pong balls from square A to square B. You should also build a way to catch and contain the balls in square B. Your team will also design and build a device to launch cotton balls from square B to square A. You should also build a way to catch and contain the cotton balls in square A. You may use this time to test your devices.

Part Two (2 minutes): Your team will transport Ping-Pong balls and cotton balls for score. You will earn points for how many Ping-Pong balls are successfully launched from square A and captured in square B. Your team may not touch the Ping-Pong balls to guide them after they are launched. However, if the balls are not captured in square B, you may bring them back to square A to be relaunched. At the same time, you will earn points for how many cotton balls are successfully launched from square B and captured in square A. Your team may not touch the cotton balls to guide them after they are launched. However, if the cotton balls are not captured in square A, you may bring them back to square B to be relaunched. You may continue building in Part 2, but you cannot launch until you are finished building your devices and capturing method.

MATERIALS

- ☐ 2 spoons
- ☐ 2 pairs of chopsticks (or pencils)
- ☐ 3 rubber bands
- ☐ 2 paper cups
- ☐ 4 pieces of paper

- ☐ 8 mailing labels
- ☐ 6 paper clips
- ☐ 3 Ping-Pong balls
- ☐ 3 cotton balls

SCORING

    A. 10 points (60 points maximum) for every ball that is launched from a square and captured inside a square.
    B. Up to 20 points for the creativity of your launching devices and capturing methods.
    C. Up to 20 points for how well your team works together.

PROCESSING QUESTIONS

- What approach did your team use to launch the balls? What are some other approaches that could have worked as well?

- How did you ensure that the Ping-Pong balls and cotton balls would land and remain in the squares?

- Did your team try something new and unexpected? Did you stick to methods and uses for materials that you knew worked? What are the advantages and disadvantages of both strategies?

SKILLS AND TOOLS FOR IDEA GENERATING AND FOCUSING

Focusing on idea generating skills and tools can help the team think creatively and move past more common ideas. When utilizing idea generating tools, consider these basic guidelines:

- **Remain open.** Nothing smothers the free flow of ideas like a sharp critical remark or harsh laughter from another person. To encourage the flow of ideas, make sure no judgmental attitudes are present that make a team member become more concerned with defending ideas rather than creating them. Remind team members to avoid self-judgment. They should not stifle their own ideas.

- **State and document all ideas.** Toning down an idea is easier than thinking of a new idea. Encouraging wild or silly ideas encourages team members to be imaginative. Amplifying ideas that initially appear far out encourages team members to expand their thinking.

- **Quantity counts.** If there are a large number of ideas to be considered, the chance of finding a really good idea is greater.

- **Hitchhike on the ideas of others.** Most of us have built on others' ideas or been reminded of something upon hearing an idea from someone else.

When you use idea-focusing tools, follow these basic guidelines:

- **Stay Positive.** Don't confuse negative criticism and critical thinking. Critical thinking should be focused toward guiding beliefs and actions, not just toward attacking ideas or pointing out what's wrong with them. Critical thinking and critique should always be focused on ideas and not on people.

- **Be thoughtful.** Critical thinking is not a matter of settling on an idea or course of action as a matter of whim. Knowing and using thinking strategies helps teams focus on options and goals, and also helps prevent conflict.

- **Consider uniqueness.** Focus your ideas into possibilities that provide new and better ways to proceed.

- **Stay on the path.** It is much easier to focus your critical thinking in productive ways if the goals and objectives are clear. Test progress by asking, "Are we moving closer toward where we want to be? Will these ideas help us move in a positive, constructive direction?"

CREATIVE THINKING

THE PROCESS OF DEVELOPING IDEAS AND OPTIONS TO SOLVE THE CHALLENGE

Idea Creation

As team members work toward a solution, they will need to generate many ideas to find the few that will make their solution unique. Fluency, flexibility, originality and elaboration are strategies to increase creative thinking.

- **FLUENCY** is the ability to generate as many ideas as possible. The more ideas the team generates, the more opportunities the team has to combine ideas and find new solutions.

    TM Tip: Continually ask open-ended questions and press for multiple answers to instill fluent thinking in team members. Use the creative thinking tools to push your team past the most common answers. After the team gives you as many answers as they think are possible, use a different tool to help them go deeper with ideas. Remind them that the first answers are often the same answers other teams are giving.

- **FLEXIBILITY** is categorizing and connecting ideas and objects as well as learning from different categories (such as materials, functions or features) and thinking about them in diverse ways. Flexibility helps the team members think beyond common answers and create unusual or unconventional solutions.

    TM Tip: Provide a wide variety of common Instant Challenge materials and ask the team to demonstrate each of the materials as an extender, a connector and a controller. Well-developed flexible thinking allows team members to see how items can cross over into multiple categories.

- **ORIGINALITY** is creating innovative options that are often clever and unfamiliar, such as an unusual combination of two objects or word play.

    TM Tip: For an Instant Challenge, give the team a character and an unrelated setting and ask them to create a performance that successfully integrates the two. Example: An octopus living in the desert.

- **ELABORATION** is using words, images and actions to add details to enhance meaning.

    TM Tip: As an exercise, ask the team members to think about how they might build a costume that effectively portrays an animal. Ask questions that search for details, such as: "What color is it?" "What materials should the costume be made out of?" "How does the character move?" Ask team members to build on other team members' ideas.

CRITICAL THINKING

THE PROCESS OF EVALUATING AND SELECTING AN OPTION

Critical thinking involves objective analysis and evaluation of ideas and options. When team members have generated many ideas, they will need to begin to sort through them and decide which ideas merit a closer look. Idea focusing involves examining possibilities carefully, fairly and constructively. Teams should then focus their thoughts and actions by:

- Organizing and analyzing possibilities
- Refining and developing promising possibilities
- Ranking or prioritizing options
- Choosing or deciding on certain options
- Using idea focusing tools to aid in the option selection process

> **TM Tip:** Help team members learn how to recognize the difference between objective and subjective reasoning. As team members evaluate different idea options, ask if their reasoning is objective or subjective. This will help the team differentiate between fact and opinion. Good evaluation should be as opinion-free as possible and should be based more on objective criteria. Also, when a team can recognize that subjective scoring is based on opinion, the team can then find ways to strengthen positive opinion toward their solution.

CRITICAL THINKING PRACTICE

Review the critical thinking and focusing information with your team members. It is important for them to understand the general principles before they begin working together to focus and choose ideas. Ask the team members to think of different ways they can take their generated ideas and focus them. Can the team think of five different methods they might use to select ideas fairly and constructively?

Focusing Ideas

1. _____

2. _____

3. _____

4. _____

5. _____

Next, have the team complete the Race for Fluency activity. With the lists generated and teams formed during Race for Fluency, ask each team to focus their ideas down to five workable solutions, using at least one of the five focusing methods they listed on the Focusing Ideas chart. Do not race for this part of the exercise.

THINKING SKILLS

RACE FOR FLUENCY

Start an idea generating session on a high-energy, creative note with this tool! First, split your team into two separate groups. Next, give each group a few sheets of paper and a pencil.

Tell the groups you will pose a problem, and then the groups will race to generate 30 ideas that could potentially solve the problem. The first group to hand a list of 30 ideas to the Team Manager wins a prize! (If you're worried about being fair, the prize can be as simple as bragging rights.)

When the groups are ready, ask: "How might you use a sheet of tin foil in a skit about a unicorn?" Remember, the goal is for team members to get used to creating as many ideas as possible. In idea generating, the team should not judge ideas, but rather record them for later consideration. Right now, each idea is simply an option.

Keep all of your team's ideas in one place. You can use the focusing tools to help pare down the list.

- After the groups are finished, have them share their ideas.
- How many ideas were on both lists?
- How many were only on one team's list?
- How might you have used a thinking tool?
- What can your team take from this activity?

DECISION MAKING

Throughout the DI season, there will be hundreds of decisions to be made. Reaching quality decisions in an efficient way that preserves relationships among team members may seem like an impossible goal. Everyone has had experiences with group decision making where they have walked away feeling dissatisfied with the outcome, the process or their relationship with others in the group.

Teams generally believe there are only two ways to reach a conclusion:

1.   Voting
2.   Consensus

However, there are alternatives. One alternative is for a single team member to make a decision for the whole team, as long as the team has created some rules about how and when an individual is empowered to make the decision. The following are a few decision-making rules that DI teams use which allow a single team member to make a decision for the whole team under certain circumstances:

1.   If the group can't reach a quick conclusion about their approach to solving an Instant Challenge, the Task or Performance Manager (see Team Roles in the Instant Challenge section of Roadmap, page 43) can make the decision based on everyone's input.
2.   The main script writer for the team can act as the final decision maker if the team can't reach a consensus about a plot point they're discussing.
3.   Some teams use the Individual Interest Inventory survey that can be found on page 93 to talk about special skills of different team members. When a decision related to an area of strength for one of the team members comes up, that team member can become the final decision maker.

In each of these examples, the team took the time to think through different roles in different situations and had included a certain amount of decision-making authority into the description of the role. One practical way to clarify decision making is to spend time early in the season building a matrix that the team can use throughout the season.

Below is an example of a decision-making matrix.

DECISIONS RELATED TO…	DECISION MAKER(S)	CONSENSUS	IF WE CAN'T REACH CONSENSUS
Meeting times and dates	Team Manager		
Which Team Challenge we solve		X	Use a tool from Roadmap
Our story		X	Amanda decides
Costumes and props	Danielle with input from the team		
Technical elements	Diego and Emily		
Task-Based Instant Challenges	Sofia with input from the team		
Performance-Based or Combination Instant Challenges	Benjamin with input from the team		
Who plays which role during the Presentation		X	Private voting

THINKING SKILLS

DECISION-MAKING MATRIX

DECISIONS RELATED TO…	DECISION MAKER(S)	CONSENSUS	IF WE CAN'T REACH CONSENSUS

IDEA GENERATING CHART - TEAM NAME

You will need a large floor space for this activity.

IDEA GENERATING

1. Hand out three copies of the Idea Generation Chart to each team member.

2. Over the next several minutes, your team will generate ideas for a brand new team name. No one should talk in this stage of the process. Have the team members write down their ideas for team names on their papers. Each idea should go in a separate cell of the table.

3. In this stage, the ideas don't have to be fully formed. Encourage fluency of ideas, and have the team members write down anything they can think of as soon as they think of it.

4. After the team cannot generate any more ideas, the team members cut their charts on the dotted lines. Each team member should have a stack of his or her ideas.

IDEA FOCUSING

1. Next, one team member presents each of his or her team name ideas, one at a time, so everyone else can understand them. After each idea is presented, the team member places it on the floor in full view. After the team member's ideas are all announced, the team member should quickly group the ideas into similar topics. For example, sports teams might be a group and plants might be another group.

2. Have the other team members follow by presenting their ideas and grouping them. They can group their ideas with ideas from other team members.

3. Have the team discuss its favorite ideas or groupings.

4. Each team member has three votes for his or her favorite groupings. Make note of the votes, and you'll have the ideas ranked by popularity!

This tool combines generating and focusing into one exercise and can be used to create ideas for many topics. It is not just for deciding on a team name.

TM Tip: Remember, this process is very fluid. Your team can return to generating ideas as often as necessary, even after the team has focused ideas. For example, team members might generate new ideas after seeing other ideas from their team members. Have them record and share any such ideas. For this activity, work toward finding a team name, but don't force the team to pick a name if they can't agree.

THINKING SKILLS

IDEA GENERATION CHART

ABC BRAINSTORMING

"ABC Brainstorming" is a thinking tool that can help teams generate ideas. This technique is a good method to help a team in the Imagine stage of the creative process. By forcing teams to think differently, thinking tools help teams discover options they might not have generated on their own.

Draw the grid below on a blackboard, whiteboard or a flip chart. The team will generate ideas that start with each letter. The first time you use this tool, try to address a simple or unrelated problem so the team can work for fluency of ideas. For example, what are different functions that a chair might serve? How about a ballpoint pen? Strive for as many ideas as possible, and try to fill in every letter.

> **TM Tip:** When your team is more comfortable with the technique, they can use this tool to generate ideas for the Team Challenge. Try having team members use this tool to determine a setting for their team story or for materials they can use to build their sets, props, costumes or technical items.

LETTER	IDEA	LETTER	IDEA
A		N	
B		O	
C		P	
D		Q	
E		R	
F		S	
G		T	
H		U	
I		V	
J		W	
K		X	
L		Y	
M		Z	

THINKING SKILLS

MIX AND MATCH

The Mix and Match tool, sometimes called "morphological analysis," links ideas or attributes together in a random manner to generate numerous and original options. Using this tool, different attributes are generated in a number of columns. By randomly selecting one idea from each column, the team can generate hundreds of combinations that may inspire many varied new ideas to research and explore.

Number ten small pieces of paper or index cards sequentially from 1 to 10. Hold these cards to use after the team has generated their ideas.

To use the tool, draw a graph with five columns. The first column lists numbers from 1 to 10. The heading for each of the remaining four columns should be labeled with different categories for which the team wants to generate possibilities.

To practice using the tool, ask the team to generate ideas for a possible storyline for a skit. Use the categories on the top of the form. Generate enough ideas to fill the column under each category. Afterward, randomly choose one number for each category by using the numbered pieces of paper. By combining those five choices, your team will have generated a new idea for a storyline.

Use this tool as your team works on different parts of the Challenge. Adjust the columns, in number and category, as necessary. For example, to use the tool to generate ideas for a character, you can use the categories of age, style, behavior, movement and attitude. There is a blank form without column titles (page 77) that you can copy and use to generate ideas about different topics.

	HERO	VILLAIN	CONFLICT	SETTING	HUMOR
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

THINKING SKILLS

Another version of Mix and Match uses index cards and paper bags. Label five paper bags with a category. Using index cards, ask the team to list as many ideas as they can for each category. Put the completed cards into the appropriate bags. Ask the team to draw a card randomly from each bag and then discuss ideas that arise from the combinations.

1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

THINKING SKILLS

KWL (KNOW, WANT TO KNOW, LEARNED) CHART

After your team has generated as many ideas as possible, the team members should then choose their top three ideas and perform research/observation to learn more about each generated option. Research can give the team a better understanding of each idea, which can make the team more efficient when it starts focusing ideas down to the most viable options.

One of the strategy tools your team can use is the K-W-L Chart. This chart can serve as a graphic organizer to help organize and document your team's research efforts. First, use a large surface (e.g., a blackboard, whiteboard or flipchart) to list all the information known about the idea under the K (Know) column. Then list all the questions the team has under the W (Want to Know) column. As the team gains information and learns new things, list all the facts in the L (Learned) column. Below is a sample chart.

IDEA

KNOW	WANT TO KNOW	LEARNED

As the team continues researching options together, it will become more important for them to consider efficiency in their research. To help, the team can use the What – Who – When – How (WWWH) strategy tool. Your team can use this tool in tandem with the K-W-L Chart, but the team is not required to do so.

To use the WWWH tool, list items that the team wants to research in the "What" column. Team members then volunteer to research and learn about each item. The team member who volunteers for each "What" item should be listed in the "Who" column next to the item. The volunteer then commits to a time when the research will be finished. All the team members then suggest ways to conduct the research and then list those ways in the "How" column.

WHAT	WHO	WHEN	HOW

TM Tip: You may need to establish rules as the team begins to research information on its own. Rules of the Road features information regarding Internet safety.

TM Tip: Keep the K-W-L Chart for future reference. For now, it can keep track of the types of knowledge the team needs to acquire. Later, you'll find it details what the team has learned over the course of a season.

THINKING SKILLS

CHOICE HELPER

One way the team can choose ideas is by using Choice Helper. Divide the team into two groups. Give each team a few pieces of paper.

Choice Helper is a matrix that helps the team to assess ideas according to factors the team members consider important. Choice Helper allows the team to narrow its choices and to evaluate options in an orderly manner.

1. To use the matrix, the team first lists ideas down the left side of the matrix. For example, if a team has five different options for a prop to make, it would list the five options on the left side of the matrix.

2. Then the team lists criteria across the top of the matrix that are important to choosing the best ideas. Using the same example, the team might decide that low-cost, readily-available materials, needed skills, building time and uniqueness are the criteria it will use to judge each prop. (Use these criteria, or have the teams make up their own.)

3. The team then assigns a ranking scale with which they can assess each option for each criterion (e.g., 1=fair, 3=average, 5=great).

4. Each team member should be given his or her own sheet of paper and writing utensil to rank each option.

5. Then the team should consider each idea, one at a time. Each team member will work down each column to rank each option for the same criterion. Then they should go to the next criterion. (Doing it this way will reduce the possibility that a team member will be affected by how others ranked criteria.)

6. When each team member has ranked the options for each criterion, they give their individual sheets to the Team Manager to average the points. The results can direct the team's discussion until they can come to an orderly and well-considered decision.

Option	Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5	Average
1						
2						
3						
4						
5						

THINKING SKILLS

PAIRED CHOICE ANALYSIS

The Paired Choice Analysis (PCA) tool is particularly useful when the team has a small number of appealing options and wants to select the most promising one. The tool asks team members to compare and rate each option against every other option. Because the PCA tool also asks team members to number the strength of their preferences, the tool effectively ranks the team's options in order of preference.

Hand each team member a copy of the form and follow the instructions to show team how to use the tool. To see how the PCA tool works, ask the team to generate four ideas for main characters in a short skit about a fictional election. Go quickly, and don't put too much emphasis on idea generation. Then ask the team members to fill out their forms using those four options.

PAIRED CHOICE ANALYSIS WORKSHEET - Example

1. List the options:

Option A	Yosemite Sam
Option B	Bugs Bunny
Option C	Superman
Option D	Wonder Woman

2. For each pair, circle the option you prefer. In the Value column, enter a number to indicate how strongly you feel about your choice (3=very strongly prefer, 2=moderately prefer, 1=slightly prefer).

Team Member 1

Option	Value	Option	Value	Option	Value
A / (B)	2	(A) / C	2	A / (D)	2
		B / (C)	2	(B) / D	2
				C / (D)	1

Team Member 2

Option	Value	Option	Value	Option	Value
(A) / B	2	A / (C)	3	(A) / D	1
		(B) / C	3	B / (D)	2
				(C) / D	1

Team Member 3

Option	Value	Option	Value	Option	Value
(A) / B	1	A / (C)	1	A / (D)	3
		B / (C)	2	(B) / D	2
				C / (D)	2

THINKING SKILLS

3. For each team member, add up the total score for each option. For example, Team Member 1 has chosen Option D twice and given a total score of 3. Record the total in the worksheet on page 83.

Total scores for the example above:

	Option A: Yosemite Sam	Option B: Bugs Bunny	Option C: Superman	Option D: Wonder Woman
Team Member 1	2	4	2	3
Team Member 2	3	3	6	2
Team Member 3	1	2	3	5
Team Member 4				
Team Member 5				
Team Member 6				
Team Member 7				
TEAM TOTAL	6	9	11	10

4. Then rank the results!

Team Total

Our top choice: Superman (Option C)	2nd choice: Wonder Woman (Option D)	3rd choice: Bugs Bunny (Option B)	4th choice: Yosemite Sam (Option A)

THINKING SKILLS

PAIRED CHOICE ANALYSIS WORKSHEET

(Make copies as needed for team members)

Team Member Name (optional): _____

1. List the options:

Option A	
Option B	
Option C	
Option D	

2. For each pair, circle the option you prefer. In the Value column, enter a number to indicate how strongly you feel about your choice (3=very strongly prefer, 2=moderately prefer, 1=slightly prefer).

Team Member _____

Option	Value	Option	Value	Option	Value
A / B		A / C		A / D	
		B / C		B / D	
				C / D	

TEAM MANAGER TALLY SHEET

1. **For each team member, add up the total score for each option.**

	Option A: _____	Option B: _____	Option C: _____	Option D: _____
Team Member 1				
Team Member 2				
Team Member 3				
Team Member 4				
Team Member 5				
Team Member 6				
Team Member 7				
TEAM TOTAL				

2. **Then rank the results!**

Our top choice: _____

2nd choice: _____

3rd choice: _____

4th choice: _____

THINKING SKILLS

HITS AND HOTSPOTS

Hits and Hot Spots is a generating and focusing tool that can be used when the team has generated a long list of ideas that need to be focused.

You will need flipchart paper, sticky notes and colored sticky dots for this tool.

Choose two or three topics that relate to the Challenge solution (e.g., story location & time, story plots, characters, set ideas, etc.). Give each team member several sticky notes. Each team member silently lists as many ideas as they can, one idea per sticky note. Team members place their sticky notes on the appropriate flipchart. Encourage them to list as many ideas as they can, asking them to dig a bit deeper.

Divide the team members into groups based on the number of flipcharts you have. Assign a group of team members to each flipchart. Each group will cluster all the ideas on the flipchart into related categories. For example, all outer space locations might form a category. Ask each group to discuss the categories and ideas on their flipchart.

Give each team member a specified number of sticky dots (10 is a good number, but you can choose a lower or higher number of dots). Explain that the dots represent their level of approval of an idea. Have the team put one dot on each idea they really like. (If you give them more than 10 dots, the team can "spend" their dots as they wish – with more dots representing more approval).

When the team is finished with the dots, the team members will probably see some agreement around categories and ideas. The team can use the same tool or a different tool to focus those ideas even further.

TM Tip: Hits and Hotspots does not have to be done silently. The team can generate idea lists together and the Team Manager can write down the ideas exactly as the team says them. The team won't be able to group ideas, but the sticky dots can still be used to identify the most popular ideas.

FACILITATING FOR SUCCESSFUL TEAMWORK

Destination Imagination teams are much like adult work teams. They accept tasks, work together to solve a problem or create something, manage personality conflicts, and work best when they have trust and shared leadership. A Team Manager's most important role is to create an environment that encourages team members to work together. Working with others and their ideas can be a struggle for many team members. This section of Roadmap provides suggestions and tips for understanding team development and the qualities of successful teamwork.

To build solid teamwork, Team Managers:

- Stay supportive from the sidelines
- Nurture the team's progress toward their goals
- Guide growth as a team
- Teach the team to guide and manage themselves
- Celebrate successes as they happen (especially small successes)

TEAM DEVELOPMENT

In 1965, educational psychologist Bruce Tuckman published a well-known and elegant framework for describing the stages of team development. This framework names the patterns of behavior almost always observed when individuals form groups with interdependencies. First is the forming stage, followed by the storming, norming, performing and adjourning stages.

It's important to note that these stages overlap somewhat and teams can move back and forth as circumstances affect their development. Some teams may get stuck at any one of the stages and may need a defining event to push them into the next stage.

FORMING STAGE
Team members in this stage often appear to be on their best behavior, reserved and polite. This is not a time for making important decisions about their Challenge solution or expecting team members to be open or direct in their communication. DI teams in the forming stage may be very quiet ("It's too scary to say anything") or very silly ("I'll laugh at everything you do to show you that I care about you"). Team members are dealing with issues of inclusion.

STORMING STAGE
Team members may appear competitive and expresses themselves through arguments by digging in their heels or wanting credit and attention. DI teams in the storming stage are often disruptive, interrupt each other and talk more about "I" and "me" rather than "we."

NORMING STAGE
Team members appropriately interact and begin to reach agreements more quickly. The team operates according to working agreements (could be explicit or implicit), their roles have been defined, and they are working together. DI teams in the norming stage generally accept each other and have learned how to work together and get themselves unstuck, though they are still fairly dependent on the Team Manager to direct their activities and set the agenda. Team members are dealing with issues of openness.

PERFORMING STAGE
Team members identify as a cohesive team. Team members willingly sacrifice in order to contribute to team success. The Team Manager moves into more of a support role. Team members are direct and open with each other on behalf of the team's goals and working agreements. DI teams in the performing stage take initiative to divide work, contact each other between formal team meetings, and stay focused at meetings; generally accomplishing team tasks and goals.

ADJOURNING STAGE
Team members conclude their time together after the tournament season has ended and parallels the Evaluation and Celebration phase of the creative process. The team members need to celebrate their accomplishments and group achievements together. Team Managers may hold a celebratory party to reflect on their time together as a team and say personal goodbyes.

Team Managers are an integral part of helping teams cycle through the stages of team development. The following table will help you outline some strategies to help the team work through the different stages of team development.

STAGE	TEAM MANAGER STRATEGY
Forming	■ Focus on relationships. Help the team get to know each other and avoid focusing on major decisions. ■ Push a team stuck in this stage into disagreeing with each other or competing with each other in order to initiate storming.
Storming	■ Focus on the process. The team must learn to trust and respect one another. ■ Don't try to bypass the storming stage. Team members will learn to be more open and trust one another if they have had an opportunity to compete with each other for the team's attention. ■ Remind the team members to value everyone's input and to be respectful when disagreeing. ■ Create a shared experience or success to help build a team identity.
Norming	■ Focus on results. As the team develops its working agreements, be sure to keep them posted in clear view at meetings. ■ Focus the team to pay attention to their plans and timelines. ■ Bring back issues that were left unresolved. ■ Encourage the team to challenge one another to raise the bar or to face a significant conflict.
Performing	■ Focus on results, the process and relationships. ■ Encourage the team to be open and honest in a safe, productive way. ■ Help the team hold each other accountable for high-quality results.
Adjourning	■ Focus on celebration. ■ Highlight the team's progress and successes. ■ Take time to reflect on how the team and team members developed over the season.

SUCCESSFUL TEAMWORK

Certain qualities and behaviors are hallmarks of successful teamwork whether you are working with a team of adults or with a team of young people:

- Trust
- Common goals and purpose
- Good communication
- Respect for people and ideas

TRUST

Team members who trust each other:

- Feel part of the group
- Are concerned about the well-being of other members
- Believe that other team members are capable
- Feel competent with tasks and roles
- Are open and honest with each other

The Team Manager's role in facilitating trust among the team:

- Focus on relationships—your relationships with each team member and relationships between team members
- Help the team set guidelines around respectful behavior
- Create opportunities for success
- Help the team avoid destructive conflict. Remember, constructive conflict is productive.

Helping your team develop trust:

- Give the team an Instant Challenge that you know the team can master
- Direct the team to talk about the talents they see in each other

ACTIVITIES TO DEVELOP TRUST

SETTING TEAM RULES

One of the best ways to create an atmosphere of safety and trust is to work with the team to develop some team rules. Rules can be as general or specific as the team needs or wants. During one of the first meetings, start a discussion about team rules. Here are some examples:

- Respectful, kind language is used at all times.
- Team members will call if they are not able to attend a meeting.
- Should team members miss a meeting, they have to accept the decisions that were made by the rest of the team in their absence.
- No spray painting in the house.
- Power tools are only used in the presence of at least one adult.
- All hands must be visible before power tools are started.
- Team members must ask permission to eat or drink anything in the kitchen.

The team may also come up with some simple consequences for rule infractions. Here are some examples:

- If you use a power tool without an adult present, you will not be allowed to use the tools for the rest of the meeting.
- If you use disrespectful language, you must apologize to the team and team member. If the behavior becomes disruptive to the team, you will have to call a parent to come get you and will miss the rest of the meeting.

Write down the team's rules here:

_____

_____

_____

_____

_____

_____

TM Tip: Record the rules on poster board and display them at every meeting.

BY THE NUMBERS

Each team member will be given a piece of paper and will write a category of their choosing at the top of the paper. (For example, "Movie," "Song Lyric" or "Hiding Place.") Make sure that there are no repeated categories.

Team members will then pass their papers to the right. On the piece of paper that has been passed to them, the team member should write their name and their top three favorite things that correspond to the category. Encourage team members to be thoughtful and honest. Continue passing papers to the right and adding favorite things to the lists until each team member has written on each sheet of paper. Your team can also repeat the activity with new categories.

Everyone now has a list of team members' favorite things! Take time to discuss each list, and keep the lists for your records. At the end of the activity, ask team members to vote on their top five favorite things across all categories and record them in the chart below.

WRITE DOWN FIVE OF THE TEAM'S FAVORITE THINGS HERE

1	
2	
3	
4	
5	

PHYSICAL PLAY

Play games that require physical interaction:

- **Group Knot** – Team members stand in a circle facing inward with their eyes closed. Each team member reaches into the circle and grabs a hand. Repeat with the other hand. Have them open their eyes and work to untangle the knot without dropping hands.

- **Ring Around the Circle** – The team stands in a circle and holds hands. Place a hula hoop between two members. The team moves the hoop around the circle without dropping hands.

- **Tag** – A good old-fashioned game of tag gets blood moving and laughter flowing. Be sure to play along. Nothing gets a team feeling like a team faster than the common target of the Team Manager.

- **Blindfold Walk** – Break the team up into pairs or groups of three. One member of the small group wears a blindfold. The small group walks with the blind-folded team member across the room or somewhere safe. Group members take turns wearing the blindfold. To demonstrate your trust in the team, wear a blindfold and have the team work together to guide you physically around a room. When trust is strong, you can venture outside. Repeat the activity using verbal commands to guide each other, including you as the Team Manager, safely around the room or through obstacles.

- **3-D Human Sculptures** – Team members work together to use their bodies to create shapes, designs and objects, including all team members in the sculpture. Start with easier sculptures, such as triangles, rectangles, diamonds, squares, etc., and work toward more complex objects, such as flowers, a book, elephants, helicopters, eating utensils, etc. As the team becomes experienced at moving from one shape to another, have them add movement to their sculptures (e.g., snake that moves across the room, airplane that flies, roller coaster, etc.).

TM Tip: Joining in on the play will build trust and help you connect with your team.

COMMON GOALS & PURPOSE

Completing the Challenge becomes the team's purpose. Setting goals is integral to building a solution.

Teams with common goals and purpose:

- Set their goals together
- Accept and agree on the goals
- Commit to the work necessary to complete those goals

The Team Manager's role in facilitating common goals and purpose:

- Help the team generate ideas for goals
- Facilitate agreement on the goals
- Inspire the team to reach their goals

Helping your team develop common goals and purpose:

- Encourage team members to express their thoughts and listen to each other
- Ask team members to talk about why the project is important to them

TM Tip: Idea generating and focusing tools can be used for more than creating ideas for the team's Challenge solution. You can use them to help generate ideas for goals, team rules, team names and other issues the team needs to solve.

ACTIVITIES TO DEVELOP COMMON GOALS & PURPOSE

OPEN-ENDED QUESTIONS

Asking your team members open-ended questions about goals will help get the discussion moving, teach them to listen to each other, and help them make decisions. The questions could include:

- What skills, abilities and interests do you bring to your team?
- What do you hope to learn this year?
- What is your favorite part of the Challenge?
- What part of the Challenge is going to be the most difficult for you?
- Imagine yourself unloading your props before the tournament. What do other people see? What are you most proud of?
- How much work are you willing to do to help your team meet goals?

CREATE SITUATIONS FOR THE TEAM TO MEET A COMMON GOAL

Sometimes your team will need you to create a situation that will help them make a decision or require them to work together. Here are some suggestions:

- Ask each team member to bring $3-$4 to the meeting and take them to the grocery store to purchase dinner that they will/can make and eat.
- Provide paper, scissors, glue and old magazines for team members to build a one-page collage that represents their personal goals for the team.
- Ask the team to bake and frost a cake without speaking.

TEAM INTEREST INVENTORY

The Team Interest Inventory is a four-part activity that is good to use early in the team's process to allow team members to learn more about each other. Follow these steps:

1. Ask each team member to complete the Individual Interest Inventory.

2. Have each team member add his or her scores on the Individual Interest Tally Sheet.

3. Combine all team member scores on the Team Interest Tally Sheet.

4. Discuss the results and discuss ways to incorporate your team's talents and specialties into the Team Challenge.

PART ONE: INDIVIDUAL INTEREST INVENTORY

Scale: 0 – Not applicable   1 – Rarely   2 – Occasionally   3 – Frequently   4 – Usually   5 – Almost Always

#	Statements	Scale	#
1	I like to make up puns, rhymes and jokes.	0 1 2 3 4 5	1
2	When given the opportunity, I love to play brainteaser games that require logical thinking.	0 1 2 3 4 5	2
3	I listen to music whenever I can.	0 1 2 3 4 5	3
4	I work best when I can get up and move around.	0 1 2 3 4 5	4
5	I love to do mazes, hidden object games and jigsaw puzzles.	0 1 2 3 4 5	5
6	I'm the kind of person who people come to with problems and to discuss important issues.	0 1 2 3 4 5	6
7	I write in a journal or I blog to record things that I think and care about.	0 1 2 3 4 5	7
8	I love to be outdoors whenever I can.	0 1 2 3 4 5	8
9	In my artwork, I use lots of patterns, colors and shapes.	0 1 2 3 4 5	9
10	I like to get involved, so I join groups or clubs.	0 1 2 3 4 5	10
11	I like finding just the right word when I write.	0 1 2 3 4 5	11
12	I would like to study about how different people have used certain plants for medicine.	0 1 2 3 4 5	12
13	I like sports and most physical activities.	0 1 2 3 4 5	13
14	I remember most TV jingles and can recall songs after only hearing them once or twice.	0 1 2 3 4 5	14
15	Before I begin a project, I have figured out a step-by-step procedure for myself.	0 1 2 3 4 5	15
16	I love spending time alone pursuing some personal hobbies and interests.	0 1 2 3 4 5	16
17	When I give directions, I draw a picture to explain it better.	0 1 2 3 4 5	17
18	I have strong opinions and tend not to follow the crowd.	0 1 2 3 4 5	18
19	Math and science are my favorite subjects in school.	0 1 2 3 4 5	19
20	Reading and writing are my favorite subjects in school.	0 1 2 3 4 5	20
21	I love to help others learn new skills.	0 1 2 3 4 5	21
22	I would have lots of pets, if my parents would let me!	0 1 2 3 4 5	22
23	When I do a presentation, I always include music.	0 1 2 3 4 5	23
24	I enjoy doing things with my hands, such as model building, crafts, art or carpentry.	0 1 2 3 4 5	24

FACILITATING
FOR TEAMWORK

PART TWO: INDIVIDUAL INTEREST TALLY SHEET

Print a copy of this sheet for each team member. Have each team member write his or her score for each statement to the chart below, and add the scores as grouped. The highest totals most likely indicate the areas of their greatest interests or strengths.

A. Interpersonal

____ + ____ + ____ = _____
#6   #10   #21

B. Intrapersonal

____ + ____ + ____ = _____
#7   #16   #18

C. Logic and Mathematics

____ + ____ + ____ = _____
#2   #15   #19

D. Musical

____ + ____ + ____ = _____
#3   #14   #23

E. Nature and Environment

____ + ____ + ____ = _____
#8   #12   #22

F. Physical Movement

____ + ____ + ____ = _____
#4   #13   #24

G. Words and Language

____ + ____ + ____ = _____
#1   #11   #20

H. Visual and Spatial

____ + ____ + ____ = _____
#5   #9   #17

PART THREE: TEAM INTEREST TALLY SHEET

Add the total for each team member in each of the eight areas. The team's highest scoring categories indicate your team's areas of interest.

TEAM MEMBER	A	B	C	D	E	F	G	H
1.								
2.								
3.								
4.								
5.								
6.								
7.								
Total								

A. Interpersonal = _____

B. Intrapersonal = _____

C. Logic and Mathematics = _____

D. Musical = _____

E. Nature and Environment = _____

F. Physical Movement = _____

G. Words and Language = _____

H. Visual and Spatial = _____

What if there are many clear-cut interests indicated?

A team's areas of interest may spread evenly across the entire list of interests. For example, there may be approximately equal scores in the areas of Logic and Mathematics, Music, and Physical Movement, meaning that the team has diverse areas of interest. The team will have to learn to manage diverse methods of thought and styles to create the solution. As the Team Manager, you will need to guide the team as they navigate their diverse interests.

What if the team only seems to have one clear-cut interest?

When the inventory indicates that all of the team members lean toward a specific type of interest area, the team should look closely at some of the individual team member's scores on the Individual Interests Tally Sheet to see if there are any areas that are clear interests for one or more team members. The team can then create solution options from those areas of interest.

> **TM Tip:** Teams do not have to base their solution on the interests indicated in this Interest Inventory. Teams may choose to create solutions from any area of interest they choose.

PART FOUR: TEAM INTERESTS CHART

The team can use the chart below for some samples of interests and ways the team members can use them in their solutions. The team is not limited to these options. Ask the team to generate additional ideas in each category.

INTEREST	SOME TEAM CHOICE ELEMENT IDEAS
Interpersonal Working in groups; communicating; socializing; caring for others; showing concern; cooperation; etc.	Demonstration of teamwork well beyond what is necessary to solve the Challenge; group harmony; teamwork in manipulation of props; group communication system; extreme collaboration; cooperative project; etc.
Intrapersonal Exploring their feelings; knowing or understanding them- selves and why they do the things they do; understanding their place in the universe; self-awareness; etc.	Developing one or more characters who explore their feelings/thinking/moods/emotions or assess themselves; writing poetry or music that expresses deep feelings or emotions; etc.
Logic and Mathematics Logic, mathematics; principles of physics; analyzing, comparing and contrasting; identifying patterns; deciphering codes; reasoning; collecting data; etc.	Use of patterns such as tessellations, codes, mazes, puzzles; use of surveys, tabulations, graphs in Presentation; use of mathematical principles such as fractions or multiplication; application of principles of physics (machines, technology); use of data, formulas, calculations; etc.
Musical Singing; playing instruments; listening to music; composing music; music appreciation; etc.	Composing original music; singing and/or harmonizing; creating instruments; playing instruments; use of rhythm and/ or percussion; creating vocal sounds or tones, etc.
Nature and Environment Understanding and learning about the natural world; categorizing plants, rocks, animals, etc.; ecology and/ or wildlife studies; learning about atmosphere, weather and/or constellations; etc.	Use of ecological issues in Presentation; depiction of authentic natural environment, animals, insects, plants, natural habitats, constellations; use of natural resources in the Challenge solution; depiction of natural phenomena; etc.
Physical Movement Dancing; physical exercise; acting; working with their hands; martial arts; sports; games involving physical ability; hands-on learning; manipulating puppets; etc.	An original dance; physical or gymnastic demonstration; acting out roles; pantomime; use of dramatic bodily movement; construction and/or manipulation of props; etc.
Visual and Spatial Creating visual art; designing; creating pictures, illustrations, drawings, maps; inventing; sculpting; building models; working with color schemes; construction; engineering; creating gadgets; etc.	Sculptures, paintings, posters, mosaics, or other physical works of art; set, scenery, and/or costume design; creating unique and innovative props; creative use of color; innovative uses for ordinary materials; technical design; construction; etc.
Words and Language Working with words, both written and spoken; creative writing; poetry; dramatic readings; debating; telling jokes and stories; playing word games and solving word puzzles; reading and writing plays; etc.	Use of puns, rhymes, poems; use of imagery and colorful words; creating unique and memorable characters; writing and reporting news stories; broadcasts; use of accents; storytelling; presenting a debate on an issue; use of humor; script writing; etc.

GOOD COMMUNICATION

Listening is a vital skill for successful teamwork. Listening with the intent to understand rather than reply is a critical skill for team members. Acquiring good listening skills can lead to the success of their Challenge solution as well as future relationships, education and employment.

Team members who communicate effectively:

- Listen carefully
- Listen for understanding
- Share information and knowledge
- Contribute ideas
- State the other side of a disagreement
- Are honest and respectful when sharing thoughts, ideas and opinions

The Team Manager's role in facilitating communication among the team:

- Teach listening skills
- Ensure two-way dialogue
- Help the team leave judgment out of idea generating
- Keep interactions positive and exciting

Helping your team develop communication skills:

- Start the meeting with a check-in question
  - ★ What did you learn at the last meeting?
  - ★ What are you most proud of this week?
  - ★ What does the team need to know about you?
- Teach the team when responding to the ideas of others to use "yes, and" rather than "yes, but" or "no"
- Require team members to restate the last idea before they add another of their own
- Recap accomplishments and set goals for the next meeting at the end of each meeting

ACTIVITIES TO DEVELOP COMMUNICATION SKILLS

IMPROV GAMES

- **Alphabet Game** – This is a scene consisting of at least 26 lines of dialogue. The first line starts with a given letter (e.g., "R"). The reply to that line must start with an "S," and so on, until the whole alphabet has been covered. After "Z" comes "A." Players that hesitate or use the wrong letter are replaced by another player. The replacement needs to take over the letter of the replaced player.

- **One Word at a Time** – All players sit in a circle. A story is told one word at a time. Each player provides one word of a sentence. The end of a sentence can be indicated by a player saying "period," though that is not necessary. If your team is new to improvisation, have them try a familiar story, such as "Snow White & the Seven Dwarves."

- **Animal Scenes** – Players find a partner; partners separate and run around. The leader calls out a phrase and the players must find their partner and depict the scene. The last pair to depict the scene is out. Examples:

    - ★ Frog on a log: One student gets down on their hands and knees (log) and the frog sits gently on their back.

    - ★ Bird on a perch: One student gets down on one knee (perch) and the bird sits on the perch.

    - ★ Lion in a den: One person stands with their feet apart (den) and the lion lies down on the floor.

- **Energizer** – Ask the team to pick its favorite television show. Then have them work together to perform an episode of the show. The team can either perform its favorite episode or write its own episode. Encourage the team to incorporate humor into the performance, and make sure everyone plays a different part.

LISTENING GAMES

- **Telephone** – The team members sit in a row. Give the first team member a complicated message. Team members whisper the message down the line. Compare the message at the end to the one at the beginning.

- **Ha!** – The object is to keep from laughing. Players face each other in a circle. One person says, "Ha!" The next one says, "Ha-ha!" The third continues, "Ha-ha-ha!" If someone speaks the wrong number of "ha's" or laughs, he or she is out. Start over at that point. The player who laughs last is the winner.

STACK 'EM UP

Place a stack of 10 plastic cups upside down on a table. Work together as a team and use only the rubber band and string device provided to stack the cups into a pyramid. The pyramid should have four cups in the bottom row, three in the next row, two in the next row, and one cup in the top row. Each team member must hold his or her string by its loose end.

The team may take 1 minute to plan, and then the team will have 6 minutes to build the pyramid. The team may not talk when it is stacking the cups.
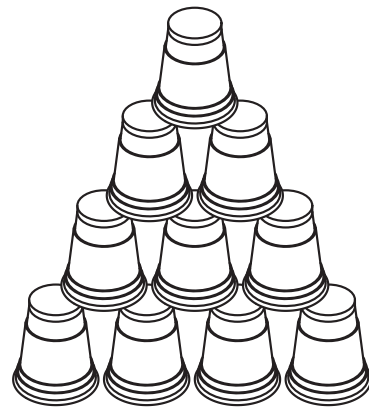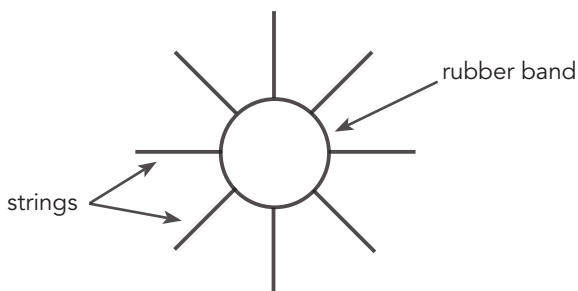
NOTE TO TEAM

Feel free to try this activity again. Can the team build the pyramid faster the second time? For a change of pace, try leaving the stack of cups in the same place, but ask the team to transport the cups using the device and build the pyramid across the room. The team can also flip the stack of cups, so the cups are right side up, to make the activity more difficult.

PROCESSING QUESTIONS

- How well do you feel your team communicated?
- Was there one person leading or were there multiple "leaders"?
- Is there another strategy you could have used to stack the cups that may have worked better?

TM Tip: At a later time, give the team the same task. Provide the team with string and rubber bands. Ask the team to build a different device. Have the team reflect on the difference between when the team was provided a ready-made device versus a team-created device.

strings

rubber band

RESPECT FOR PEOPLE AND IDEAS

Respectful behavior creates an environment where team members feel comfortable sharing ideas and taking risks.

Team members who respect each other:

- Use respectful language when generating, evaluating and choosing ideas
- Appreciate the different skills and strengths each team member brings to the team
- Ensure that conflict is focused on the issue and not on the person

The Team Manager's role in facilitating respect among the team:

- Expect respectful language and attitudes from all team members
- Identify team members' strengths
- Remember that constructive conflict is vital to a creative solution
- Interrupt and refocus negative conversations or attacks

Helping your team develop respect for each other:

- Share your observations about the team's strengths
- Suggest team members write down nice observations/comments about each other
- When the team is struggling to be respectful during idea generation, have the team list nothing but silly and outlandish ideas until everyone is laughing
- Ask each team member to take a turn observing the rest of the team as they solve an Instant Challenge. Then have the observing team member list the strengths and good ideas that were observed.
- If the team is struggling with conflict over something in their solution, direct the team to write the issue on a piece of paper and place the paper on the table. The entire team sits on one side of the table facing the issue and discusses the issue without changing position. This puts the team's focus on the issue rather than each other.

ACTIVITIES TO DEVELOP RESPECT FOR PEOPLE & IDEAS

SHAPE UP

Start by handing each of the team members a piece of paper and a different colored marker. Then ask each team member to choose a different shape (e.g., triangle, cube or trapezoid). Have the team members use their markers to draw chosen shapes three times on their papers. The shapes can be any size and can be drawn anywhere on the paper. Once they are done, have them pass the papers to the right.

Then ask them to draw their shapes three times on the papers now in front of them. Pass the papers to the right. Repeat until everyone has drawn on each paper. You now have team-created art!

Once the team has completed the activity, they will use their newly created works of art to tell a story. A variation on this activity would be for each team member to tell an ongoing story that is related to the shapes that he or she adds to the individual pieces of paper.

What does this activity tell the team about teamwork? What about the creative process or collaboration? How can the lessons of this activity apply in other activities? Write down some team comments. You can use them later so the team can track its progress.

GETTING TO KNOW YOU

A great way to help team members open up is to ask fun questions that allow them to express their personalities or interests. Here is a list of twenty safe, useful icebreaker questions to help the team get to know each other. You ,as the Team Manager, can also answer the questions to let the team know more about you.

- If you could have an endless supply of any food, what would you get?

- If you were an animal, what would you be and why?

- What is one goal you'd like to accomplish during your lifetime?

- When you were little, who was your favorite super hero and why?

- Who is your hero? (e.g., a parent, a celebrity, an influential person in one's life)

- What's your favorite thing to do in the summer?

- If they made a movie of your life, what would it be about and which actor would you want to play you?

- If you were an ice cream flavor, which one would you be and why?

- What's your favorite cartoon character and why?

- If you could visit any place in the world, where would you choose to go and why?

- What's your dream job?

- Are you a morning or night person?

- What are your favorite hobbies?

- What are your pet peeves?

- What's the weirdest thing you've ever eaten?

- Name one of your favorite things about someone in your family.

- Tell us about a unique or quirky habit of yours.

- Use three words to describe yourself.

OTHER PEOPLE'S IDEAS

As part of the creative process, team members will need to learn to assess ideas based on the best interest of the team. Use this activity to promote open discussion and consideration of ideas. First, place a cardboard box somewhere visible in front of the team. Then ask the team to generate as many ideas as possible for how the box might be used in their Team Challenge solution. Each team member must generate at least three ideas.

After the team is done generating, each team member selects two of his or her favorite ideas from the list. Team members may not select their own ideas. They must say why they like the ideas they chose.

Why is it important for team members to compromise? What can they gain by making sure that everyone is involved? What are some ways they can make sure that everyone is heard? What are some ways they can voice their concerns if they don't feel they're being listened to? Write some ideas here.

_____

_____

_____

_____

TM Tip: If your team is having a hard time with acknowledging other team members' ideas, consider creating your idea lists in one meeting, retyping/rewriting the list during the week, and having the team use the list at the next meeting. Time can help the team to forget which ideas are from which team member.

THREE THINGS

Give each team member a sheet of paper and a writing utensil. Each team member writes the other team members' names somewhere on the paper and writes three positive things under each name. The three things can be funny moments, great ideas, positive qualities, surprising showcases of talent, or whatever else the team members want to highlight. Then have all of the team members share their items with the rest of the team.

Collect and save these thoughts when the team begins to celebrate at the end of the season.

TM Tip: Taking time to acknowledge each other is an important part of becoming a great team. When conflicts arise, it can help the team to recall all of the shared experiences over the last few weeks. It can also help the team better define individual strengths and how to best apply them toward solutions.

CONFLICT

Your team will encounter conflict as it works toward a solution. Conflict is often a necessary step toward progress. Therefore, it is important for your team to learn how to deal with conflict as it arises. As a Team Manager, remember to play the role of facilitator. You should help the team process conflict as it happens, but you should avoid making decisions and judgments for the team. In other words, stay out of the conflict as much as possible; your team will thank you later.

In their book "Getting to Yes: Negotiating Agreement Without Giving In," authors Roger Fisher and William Ury break down conflicts into three components:

- The Issue: the point, subject or matter of discussion, debate or dispute

- The Positions: where people stand in relation to the issue

- The Interests: the underlying concerns, needs or desires

When team members are at a standstill due to conflict, ask them to define and divide the conflict into the three components: the issue, the positions, and the interests. As the team is identifying the issue, positions and interests, write down the team's ideas. The issue and the positions are typically easy for team members to identify, but they often have trouble with understanding their underlying interests. The act of writing these components can help the team step away from the emotion and get to the reasons for the emotion. In these instances, you can facilitate as necessary. The team needs to learn to discuss their reasoning until the team can come to a collaborative resolution.

For example, if a team is disagreeing about incorporating a superhero into a skit, the conflict may break down like this:

- The Issue: Should we include a superhero in our skit?

- The Positions: Tim thinks a superhero would be a pointless addition to the skit. Steve thinks a superhero would be an awesome addition to the skit.

- The Interests: Tim doesn't want to confuse the audience and likes the story already. Steve wants to be more involved in the Presentation, and if he played a superhero, it would command attention.

In this instance, as in most conflicts, the interests of each side were unclear. Try this exercise with your team to help resolve conflict when it arises.

> **TM Tip:** If your team is really struggling with an issue, sometimes a quick, physical activity will help them get unstuck. If the conflict is becoming a distraction, table the issue until the next meeting and do something fun together.

PROJECT MANAGEMENT

The world runs on projects, and your team will be managing a large project (the Team Challenge solution) with many mini-projects, called deliverables (the individual Challenge elements your team will need to complete) as they create a solution to their Destination Imagination Challenge.

Destination Imagination has been working with the Project Management Institute Educational Foundation (PMIEF) to give team members tools and skills that will help them solve their Challenge and help them handle future school or work projects. These tools will also help Team Managers run efficient team meetings and keep their teams on track. There are four steps (or Process Groups in PMI language) to successfully managing a project. Roadmap uses age-appropriate language to describe the steps, but it also includes official terms used by the Project Management Institute (PMI) in parenthesis to familiarize you and your team with the official PMI language.

PROJECT MANAGEMENT STEPS

Every project proceeds through a cycle comprised of four steps: Define, Plan, Do and Review. While solving a Challenge, DI teams experience the same process that professionals use as they address large-scale, real-world problems. The project management cycle closely aligns with the creative process teams follow when solving the different components of a Team Challenge.

Defining (Initiating): The first step of every project cycle is to Define the project. This step is related to the Recognize Stage of the creative process. Your DI team's Challenge project can be broken down into a smaller number of mini-projects (deliverables). Each Team Challenge has a number of requirements that need to be met for the team to solve the Challenge. During this step, your team will work to determine team guidelines and expected behaviors, choose a Challenge, understand all elements of the Challenge, set goals for the overall project, determine meeting schedules, begin to learn to work together, and start to explore the roles and behaviors that are necessary for team success. The team should discuss and agree upon these important factors before any work begins on the solution.

With DI Team Challenges, many of these essential project requirements are defined in the Challenge rules to help teams know where to start. During this step, it will also be important for the team to define roles for each team member. By defining team roles, each individual team member can more easily understand the task at hand and how to contribute effectively and efficiently to the Challenge solution.

Plan (Planning): During the Plan step, your team members will use their imaginations (the Imagine Stage of the creative process) to identify the mini-projects and tasks (deliverables) that need to be completed to solve the Challenge. Once the team has a good understanding of the Challenge, they will be able to see how many tasks and mini-projects they need to undertake to successfully complete the Challenge.

For example, a team, working on a past Challenge that is described in the Guiding Your Team section, decided on a theme for their solution. They generated many ideas to make the set match the theme and decided on two set pieces to build. As a team, they generated ideas and then decided which elements are needed for each set piece (team-defined requirements). The team agreed who is responsible for building those set pieces and developed the timeline.

The team can use this process for each element of the Challenge. Once a plan is in place, the team will move to the Do step of project management.

> **TM Tip:** You may find, especially with younger teams, that your team might do better to decide on the overall theme and then plan one deliverable for the Challenge, move to the Do and Review steps, and finish that task before planning the next one. Planning the entire solution can take time and patience; some teams might need to take action on smaller projects to keep feeling motivated about their Challenge solution.

Do (Executing and Monitoring & Controlling): In the Do step, teams will use the Initiate and Collaborate Stage of the creative process. Most of a team's time will be spent in this step of project management. Team members will use the team-generated requirements from the Plan step and bring those ideas to life. Though it may seem exciting to jump ahead and "just do something," executing a project works best if the appropriate amount of time has been allocated first to defining and planning. Careful planning, research and testing will make the Do step easier. Since the DI Challenge Experience requires teamwork and collaboration, the Do step will be more effective if roles are defined and the work and project can be split up between team members who have specific skills, expertise or interest in certain areas of the Challenge.

Review (Closing): The last step in every project is Review, where the team will focus on the quality of the project deliverables. As the team members work on the projects, they will check their work against their original plans (the Assess Stage of the creative process). Does the work meet the requirements of the Challenge and the requirements defined by the team in the Plan step? If it doesn't, the team should meet to discuss potential solutions or possibly decide to start over.

For the Destination Imagination Challenge Experience, the team's final deliverable is the Challenge solution Presentation that will take place at a local tournament or showcase. During Review, the team members reflect on how they worked through the creative process by evaluating how their solution meets the scoring rubric. They will also complete the forms required for tournament. The third page of the Tournament Data Form asks the team members to reflect on their use of the creative process. This form is a great discussion starter to help the team members understand all they have learned. Attending a tournament or showcase is an opportunity for the team to present its solution to a set of trained Appraisers who will validate the team's evaluation of its Challenge solution. This step is the Evaluate and Celebrate Stage of the creative process.

> **TM Tip:** As the team members work on creating their solutions, they may find their initial ideas are more difficult than they realized. You can encourage them to keep working to create the team's original plan. Don't let the team give up because the task is difficult; remind them that they CAN do it. If, after trying many ideas, the team members working on the task or mini-project feel they can't meet the original requirements planned by the team, have them meet with the entire team to replan the task.

CREATIVE PROCESS/PROJECT MANAGEMENT STEPS

Your team will use project management steps and the creative process when working on the Challenge solution. Below is a chart comparing the creative process and project management steps.

Project Management Steps	Creative Process	Description
Defining/Initiating	Recognize	Beginning a project; identifying the problem or Challenge and agreeing to work together to solve it
Planning	Imagine	Generating ideas; defining goals and creating a project plan and timeline
Doing/Executing and Monitoring & Controlling	Initiate & Collaborate Assess	Experimenting with potential solutions; completing the work defined in the project plan; working with others to complete the project; tracking progress on the project goals and timelines; ensuring that the products meet the requirements of the Challenge; identifying any areas of the project that need changing; practicing and preparing the solution for Presentation
Reviewing/Closing	Evaluate & Celebrate	Finalizing the project plan; presenting a solution to an audience; reflecting on what was learned and what could have been done differently; celebrating the completion of the project

TM Tip: Encourage the team to follow the project management process and develop a project plan. Meeting the goals in the project plan helps the team see accomplishments and results, which will validate the planning, effort and work that go into each of the goals. The project plan also makes for a nice piece of documentation for the team when they reach the Celebrate stage.

PMIEF has created a Project Management Basics badge that DI participants can earn based on what they learn as they complete their Challenge solution. Team members will be given the opportunity to take a badging exam to demonstrate their knowledge and earn the digital badge, which can be shared on college applications and resumes.

For more educational resources that strengthen both teaching and learning, please visit the following links on the Project Management Institute Educational Foundation website:

Careers in Project Management: https://pmief.org/library/resources/careers-in-project-management

Project Management Skills for Life: https://pmief.org/library/resources/project-management-skills-for-life

Project Management Toolkit for Teachers: https://pmief.org/library/resources/project-management-toolkit-for-teachers

Project Management Toolkit for Youth: https://pmief.org/library/resources/project-management-toolkit-for-youth

21st Century Skills Map: https://pmief.org/library/resources/21st-century-skills-map

PLANNING A SOLUTION TO A TEAM CHALLENGE

STEP 1: Identifying and Understanding Challenge Requirements

Your team's solution will be based on the requirements of the Challenge. Your team will need to read the Challenge thoroughly to identify the requirements and deliverables of the project. The Guiding Your Team section on page 9 provides instructions to understand a Challenge and includes a worksheet to help the team members identify the specific Challenge requirements.

In addition, the Challenge Requirements Identification worksheet on page 16 will help the team identify the requirements and is the first step in the project planning process. Once the team has completed the worksheet, the members can move to Step 2 of the planning process.

STEP 2: Defining the Team's Project Deliverables (Mini-Projects or Tasks)

In addition to the Challenge requirements, team members will identity additional project deliverables to enhance their solution. Team members will work together to decide how they are going to create a solution that meets both the Challenge requirements and the team's goals and aspirations.

To decide on the team-generated requirements for the solution, team members generate ideas by using one or more of the generating tools listed on page 68. After generating ideas, team members will focus the ideas and choose one or more ideas to add to the solution. Team members will include them on the Deliverable Requirements Planning Chart (examples on pages 110 and 111). The completed charts become tools for dividing the work between team members and tracking their progress.

A blank copy of the Deliverable Requirements Planning Chart can be found on page 123. You will need several copies of the chart – one for each deliverable the team identified on the Challenge Requirements Identification worksheet. Using this worksheet, the team will list the requirements defined by the Challenge and the final requirements decided by the team.

Each Challenge deliverable or element, whether team-decided or Challenge-required, will need a completed Deliverable Requirements Planning Chart. Remember to include Team Choice Elements in your project planning process. As your team members analyze the Challenge elements and requirements, they may discover that they want to add deliverables to enhance the Presentation. For instance, to solve the Challenge example introduced in the Guiding your Team section, the team added costumes and set pieces.

As a reminder, the examples in this section are based on a team's solution to a past Challenge.

Example Challenge (an excerpt of the requirements from a past Challenge):

A. Story

1. Create and present an original story that includes one Character that has a First Point of View and then experiences a Flip to a New Point of View.

2. Show the two Points of View and the Flip during the story.

3. The story may include more than one character that experiences a Flip. However, only the one Character listed on the Tournament Data form will receive score.

4. Include at least on Puppet Character and at least one Non-Puppet Character. Either type of character may experience the Flip. The story may include additional characters of either type.

5. The story may be set in any location, real or imaginary, and in any time period.

B. Puppet

1. Design and construct at least one Puppet, which will be manipulated and used as a character during the Presentation.

2. For the purposes of this Challenge, a Puppet is any artificial figure controlled by the physical manipulation of one or more team members.

3. Control the Puppet live on stage or live behind the scenes. When the Puppet is being used, there must be continuous and direct physical manipulation.

4. The Puppet may not be presented through the use of videos, DVDs or computer animations. The Puppet may not operate with pre-set speech or behavior.

TM Tip: After analyzing the requirements, some teams start with planning the story to help drive the look and feel of the other requirements. Other teams start with what they want the Presentation to look like and allow that to drive the look and feel of the story and other requirements.

DELIVERABLE REQUIREMENTS PLANNING CHART (EXAMPLE)

Deliverable: Story Outline

Relates to which part of the Challenge: Story

Responsible team members: Sally and Mike

Deadline: December 15, end of team meeting

REQUIREMENTS DEFINED BY THE CHALLENGE	REQUIREMENTS DEFINED BY THE TEAM
Story must include a Character that demonstrates two different Points of View. The Character must Flip the Point of View sometime during the story.	Story takes place out in an open area. Characters are left at the end of a show.
The story must include one Puppet and one Non-Puppet Character.	The story must have a moral – never try that, not once.
The story must be original and team-created. It may be set in any location, real or imaginary, and in any time period.	The story is presented from the point of view of the young one who wants to go with the bad crowd.
(As practice, have your team list the rest of the requirements that are defined by the Challenge.)	The young one is tricked into going into a place for only the bad crowd.
	There is a wise, ancient one who helps.
	There is a Puppet that encourages the bad behavior.
	The young one changes his mind and realizes that following the crowd is not a good choice. This is the Flip in the Point of View.

DELIVERABLE REQUIREMENTS PLANNING CHART (EXAMPLE)

Deliverable: Puppet

Relates to which part of the Challenge: Puppet Character

Responsible team members: Sarah and Julie

Deadline: February 28, end of team meeting

REQUIREMENTS DEFINED BY THE CHALLENGE	REQUIREMENTS DEFINED BY THE TEAM
Puppet must be moved/managed directly by a team member.	Must be big and operated from behind.
It can be any type of puppet.	Must move and appear to talk with the bad ones.
Must interact with a team member at some time during the Presentation.	It has to look evil and interact with the young one, bad ones, and wise one.

TM Tip: Team Choice Elements – Teams can plan Team Choice Elements as distinct parts of the Challenge from the start of planning or the team can select Team Choice Elements toward the completion of the solution. Remember, Team Choice Elements must not already be scored elsewhere in the Challenge. For example, in the Challenge excerpt above, costumes are not listed as a scoring item in the Challenge, so the team could choose a particular costume as a Team Choice Element.

STEP 3: TEAM CHALLENGE PROJECT PLAN

Project Management Institute Educational Foundation (PMIEF) adapted professional project management tools and forms to be used by students. Through our partnership with PMIEF, Destination Imagination has modified the plans and tools to meet the needs of DI teams.

More tools can be downloaded at the PMIEF website. Click on "Toolkit Materials."
http://pmief.org/learning-resources/learning-resources-library/project-management-toolkit-for-teachers

The Team Challenge project plan will help your team:

- Define the goals and success measures for your project
- Evaluate resources, constraints and assumptions
- Explore the scope of your project
- Look at deliverables and dependencies
- Establish project managers for each deliverable or mini-project
- Sequence, schedule and set milestones
- Plan and procure resources and materials
- Assess risks and plan for prevention or mitigation
- Monitor and control the project and its deliverables
- Review the project and ensure the project meets the requirements of the Challenge and the requirements defined by the team

Goals
Goals explain what will be achieved in the solution (project). In Destination Imagination, goals could include:

- Completing the project in time to attend the local tournament
- Presenting your solution at a parent night or showcase at your school
- Earning the chance to present at the Affiliate Tournament or Global Finals
- Having a good time together while working on their solution
- Creating a structure that will hold a certain amount of weight
- Building a set that has many moving parts
- Working on a service project that will help hungry students in your school

Remember: your job as a Team Manager is to help the team reach their goals, not your goals.

Lead the team through a discussion about their goals and help them establish and agree to the goals.

1. What is the question, problem, issue or perspective that drives your project?

2. What is your overall goal for your team?

3. Do you have goals for specific parts of the Challenge? What are those goals?

4. What are your goals for the end of your Challenge solution? What will your solution look like?

After establishing goals, the team completes the Team Project Goals worksheet on page 124.
(See an example Team Project Goals worksheet on the following page.)

TEAM PROJECT GOALS WORKSHEET (EXAMPLE)

What is the question, problem, issue or perspective that is driving your project (Challenge solution)?

We have decided to do the You're Going to Flip Challenge. We want to base our solution on the idea of peer pressure. We want to make this point without using any reference to anything bad.

CATEGORY	GOAL
What is your overall goal for your team?	We want to have a good time together while we work on a solution that will make our point to the Appraisers and the audience.
Do you have goals for specific parts of the Challenge? What are those goals?	We want the required puppet to be large, a bit scary, and to dominate the stage.
What are your goals for the end of your Challenge solution? What will your solution look like?	We will have non-human characters for our entire story. The set will be bright and colorful and take place in a large open space after a show.

Resources, Constraints and Assumptions

Resources are everything applied to complete the project, which may include money, time, knowledge, skills and abilities, services, items traded for, or goods owned or donated. Work with your team to name and describe the available resources.

Constraints are anything that limits what the team can do. Destination Imagination Challenges include a variety of constraints. Look back at the list your team created when they read the Challenge. The budget, the size of the Presentation Area, and the time limit are constraints. The team should identify and describe the constraints included in the Challenge. Constraints may be found in other areas as well. Perhaps your school won't let the students use power tools or spray paint, or there is a low ceiling in your work environment.

Assumptions are anything believed to be true about the project. What do the team members believe to be true about their Challenge solution?

RESOURCES, CONSTRAINTS AND ASSUMPTIONS WORKSHEET (EXAMPLE)

CATEGORY	RESOURCE
People	Allen's dad can teach welding. David's mom understands electronics. Sally's dad is a plumber. Our Team Manager can teach us to sew. The local hardware store has a tool class on Saturdays.
Money	The Parent Teacher Organization (PTO) will give us up to $50 for supplies. The local bank supports team projects. Each of us will pitch in $20 for supplies.
Team	David is great at writing stories. Mike does great puns. Julie understands physics and can sing. Molly designs beautiful costumes.
Materials	Sally's family has leftover wood from a deck project. Molly has been collecting fabric since last year.
Other	

CATEGORY	CONSTRAINT
Challenge	Value of solution has to be less than $125. We can't use fairy tales or other already-written stories. The Puppet has to be controlled live on stage or behind the scenes.
Environmental	We can't use glitter inside the house. Everything has to fit through the front door, which is 32in (81cm) wide. Everything also has to fit through the doors at the Presentation Site.
Other: Meeting times	We can only meet all together on Sunday afternoons.
Other	

CATEGORY	ASSUMPTIONS
Challenge	The Presentation Site will have high ceilings.
Environmental	We can meet at our Team Manager's house.
People	Our Team Manager will be at every meeting.
Other	Our team will be ready to present at the tournament scheduled for Saturday, March 2.

Scope

Defining the scope of your project is the process of determining tasks that are required to solve the Challenge and then making sure that all of that work, and only that work, is completed. Your team has probably listed several mini-projects on the Deliverable Requirements Planning Charts. These documents define the scope of your project.

As ideas are tested and new ideas are discovered, the project scope may change. However, the decision to change the scope of the project is a team decision. Use the Deliverable Requirement Planning Charts to help you decide if a new idea fits into your project goals.

Deliverables and Dependencies

Deliverables are the mini-projects that are created through the course of the project that lead to the team's Challenge solution. Each deliverable will have requirements that need to be met and tasks that will need to be completed within a certain time frame and order.

Dependencies are the relationships between the deliverables and the tasks. In which order will the deliverables (mini-projects) need to be completed? Are there any mini-projects that are not dependent on other deliverables?

DELIVERABLES (FROM YOUR DELIVERABLE PLANNING CHARTS)	DEPENDENCIES
Puppet	Story – is needed to determine movements required of the Puppet
Story Outline	Not dependent on other parts of the project

ESTABLISH TEAM ROLES AND RESPONSIBILITIES

Identifying project roles and deliverable managers will help the team manage the project. Team members will assign roles and responsibilities to each other.

Together, the team will be responsible for making sure the Team Challenge solution remains within all of the requirements. Deliverable managers should be prepared to give regular updates to the entire team. Team members will most likely have more than one responsibility on the team. Roles and responsibilities can be shared between team members.

Project Management Roles:

The Time Manager helps each team member remain on track and on schedule.

The Quality & Risk Manager helps team members identify possible issues or stumbling blocks. This team member will be responsible for making sure the team is aware of all the potential risks associated with completing the Team Challenge solution. Some possible risks include going over the stated budget for the chosen Team Challenge, accepting Interference from non-team members, or not solving all the Team Challenge requirements before the day of the tournament.

The Communication Manager keeps track of the project plan and Challenge materials and ensures that team members are communicating with each other.

The Deliverable Manager oversees one or more deliverables (mini-projects) for the Challenge solution and works to ensure that each deliverable meets the Challenge requirements and the requirements defined by the team. Deliverable managers will gather the supplies or other resources needed to produce their assigned deliverables.

TEAM ROLES AND RESPONSIBILITIES (Example)

Time Manager: Sally

Quality & Risk Manager: David & Molly

Communication Manager: Allen

DELIVERABLE	MANAGER(S)	OTHER MEMBERS
Story	Sally and Mike	Molly
Puppet	Sarah and Julie	Allen & David
Door to Bad Place	Allen	Molly
Costumes: old one, young one, and bad ones	Molly	Sarah

SEQUENCING, SCHEDULING AND MILESTONES

The Time Manager(s) should lead the development of the project schedule. The team should have the final approval of the schedule.

Project Management Timeline Terms:

Milestones are the points in a project's timeline that help you monitor whether or not the project is on schedule. Completing a deliverable will always be a milestone, but there are other points leading to the deliverable that may also be named as milestones. (See example on the following page.) Milestones are written as a statement of what will be accomplished. Each deliverable may have one or more milestones.

Tasks are individual to-do items. Each deliverable may have multiple tasks. Complete the Milestones and Tasks Sequencing worksheet on page 128.

Work time is the estimated time it will take to do the task. Record the estimated work time on the Task List Chart for each task.

Sequencing is putting milestones, activities and tasks in the order they will be completed. Identify the order of the tasks needed to complete your deliverable. Combining your milestones, activities and tasks with sequencing and work time will give you a schedule for your project. Use the chart on page 128 to record your project sequence.

MILESTONES & TASKS SEQUENCING WORKSHEET (EXAMPLE)

Deliverable: Puppet

Managers: Sarah and Julie

Milestones

1. Frame is built

2. Arm moves (forward, back, side to side, can grab something)

3. Puppet is complete

Total Work Time Estimate: 43 hours

Completion Date: February 28

	TASKS (IN ORDER OF COMPLETION)	WORK TIME ESTIMATE
1	Draw a picture of the Puppet with planned measurements	2 hours
2	Gather materials to build frame	1 hours
3	Build frame	8 hours
4	Design model of mechanical arm	4 hours
5	Build a mechanical arm	8 hours
6	Design and create Puppet items	8 hours
7	Paint Puppet	2 hours
8	Add eyes, ears and mouth	2 hours
9	Install mechanical arm	3 hours
10	Install items	1 hour
11	Add music – install device	1 hour
12	Record music	30 minutes
13	Test mechanical arm and other aspects of the Puppet	2.5 hours

RESOURCE PLANNING AND BUDGET

Resource planning means considering everything needed to complete the Team Challenge solution. This might be money, space, supplies or materials. Every DI Challenge includes a budget limit. The team should consider how money and resources are spent. The Quality & Risk Manager can help track the resources. Different team members may require similar resources, so it is important that the Communication Manager helps team members communicate and work together.

RESOURCE PLANNING WORKSHEET (EXAMPLE)

Deliverable: Puppet

Managers: Sarah & Julie

RESOURCE NEEDED (LIST EACH SEPARATELY)	HOW YOU WILL ACQUIRE IT	ESTIMATED COST
(8) 2ft x4ft (.6m x 1.2m) pieces of wood	4 are left over from Sarah's deck, 4 need to be purchased	(4) $1.00 each garage sale value (4) new, $2.50 each
2 large sheets of plywood	Construction site down the road tossed several into their trash. Ask permission to take them.	Garage sale value of $3.00 per sheet
Paint	Purchase at Home Depot	$5.00/pint
2 clamp lamps	In Team Manager's supply closet	Garage sale value of $1.00 each

Budgeting and Expense Report

Each DI Challenge has a budget limit, and teams are required to complete an Expense Report and turn it in at the tournament or showcase. See Rules of the Road for an explanation of the Expense Report and categories.

> **TM Tip:** Items that are both used and functional should be assigned a garage sale value. Your team may list true discards, such as used cardboard boxes, used empty containers, etc., as trash items. Remember, only items that appear on stage need to be included in the Expense Report.

RISK MANAGEMENT PLAN

Managing risk means reducing the likelihood and/or impact of negative events. The Quality & Risk Manager should lead the development of the plan.

There are a number of different risks that the team may want to consider when developing your Team Challenge solution. Some risks include spending more than the Challenge budget will allow, accepting non-team member Interference, not completing all Team Challenge requirements before the tournament, etc.

RISK MANAGEMENT WORKSHEET (EXAMPLE)

Deliverable: Puppet

Managers: Sarah & Julie

WHAT MIGHT GO WRONG?	Risk Level L=Low M=Medium H=High	Area of Impact				HOW TO PREVENT IT OR FIX IT
		Resources	Timing	Requirements	Quality	
Mechanical arm could break or not move	M		X	X	X	Make a model; add an additional meeting to focus on mechanical arm; ask team members for ideas and help
Puppet won't fit through door	H			X	X	Measure carefully before building

MONITOR AND CONTROL PROCESS

Monitoring and controlling can help the team stay engaged throughout the Doing step. Through the monitoring and controlling process, they can stay on time and budget and create high-quality solutions. To effectively monitor and control the project, the team members should continually update each other on the progress made toward completing individual activities. This can include keeping an up-to-date inventory of materials and revising the overall Team Challenge Project Plan as needed.

> **TM Tip:** Have the team use the Milestones & Tasks Sequencing worksheet as a to-do list and check off the tasks and milestones as they are completed. This will help the team visualize any remaining work.

STEP 4: REVIEW PROJECT

The final step of project management is the opportunity to ensure all work is completed, review and assess the end product, and take the final Presentation to a tournament or showcase.

Below are some useful activities that were developed by the Project Management Institute Educational Foundation.

GROUP REFLECTION: LINE UP!

MATERIALS

A rope or item to make a "line" on the ground

DIRECTIONS

1. Explain that the line represents how strongly team members feel about the statements you are going to make. One end (decide which one) is the "strongly disagree" end of the line and the other end is the "strongly agree" end of the line. The middle is "neutral."

2. Read a statement and tell team members to place themselves on the line depending on how much they agree or disagree with the statement.

3. Give team members a practice statement such as, "I like chocolate ice cream." Ask them to place themselves on the line depending on how much they agree or disagree with the statement.

4. Do this activity with the suggested statements. After each statement, you can ask individual team members to explain why they chose to stand where they did on the line. Or, have team members turn to someone and explain their choice.

5. Remind team members that there are no "right" or "wrong" places to stand on the line.

STATEMENTS

- I enjoyed participating in Destination Imagination this year.

- I gained new skills and knowledge by solving our Team Challenge.

- I liked practicing Instant Challenges with my team.

- I feel more confident now that I have participated in DI.

- We did a great job on _____. (Team Manager fills in the blank)

PASS THE BALL

MATERIALS

Beach ball with questions written on each colored area

DIRECTIONS

1. Arrange the team in a circle.

2. Toss the beach ball. After three bumps/hits of the ball, the team member who has the ball reads the question that their right thumb is on and answers the question, or they can ask someone else to answer it.

3. The game continues until everyone has had a chance to answer a question.

QUESTIONS

- How did your group work together?

- What did you contribute to the solution?

- What were the most important lessons learned?

- What would you do differently next time?

- What is something your team learned about the Challenge subject?

- What is one thing you learned about each of your team members?

- What is something the team learned thanks in part to someone they didn't know beforehand?

DELIVERABLE REQUIREMENTS PLANNING CHART

(Make copies as needed)

Deliverable: _____

Relates to which part of the Challenge: _____

Responsible team members: _____

Deadline: _____

REQUIREMENTS DEFINED BY THE CHALLENGE	REQUIREMENTS DEFINED BY THE TEAM

Notes about this deliverable:

_____

_____

_____

_____

TEAM PROJECT GOALS WORKSHEET

What is the question, problem, issue or perspective that is driving your project (Challenge solution)?

_____

_____

_____

_____

_____

_____

CATEGORY	GOAL
What are your overall goals for your team?	
Do you have goals for specific parts of the Challenge? What are those goals?	
What are your goals for the end of your Challenge solution? What will your solution look like?	

PROJECT MANAGEMENT

RESOURCES, CONSTRAINTS & ASSUMPTIONS WORKSHEET

CATEGORY	RESOURCE
People	
Money	
Team	
Materials	
Other	

CATEGORY	CONSTRAINT
Challenge	
Environmental	
Other	
Other	

CATEGORY	ASSUMPTIONS
Challenge	
Environmental	
People	
Other	

DELIVERABLES AND DEPENDENCIES

DELIVERABLES (FROM YOUR DELIVERABLE PLANNING CHARTS)	DEPENDENCIES (LIST WHAT HAS TO HAPPEN TO COMPLETE EACH DELIVERABLE)

TEAM ROLES AND RESPONSIBILITIES

Time Manager: _____

Quality & Risk Manager: _____

Communication Manager: _____

DELIVERABLE	MANAGER(S)	OTHER MEMBERS

MILESTONES & TASKS SEQUENCING WORKSHEET

(Make copies as needed)

Deliverable: _____

Managers: _____

Milestones:

1. _____

2. _____

3. _____

Total Work Time Estimate: _____

Completion Date: _____

	TASKS (IN ORDER OF COMPLETION)	WORK TIME ESTIMATE
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

PROJECT MANAGEMENT

RESOURCE PLANNING WORKSHEET

(Make copies as needed)

Deliverable: _____

Managers: _____

RESOURCE NEEDED (LIST EACH SEPARATELY)	HOW YOU WILL ACQUIRE IT	ESTIMATED COST

RISK MANAGEMENT WORKSHEET

(Make copies as needed)

Deliverable: _____

Managers: _____

WHAT MIGHT GO WRONG?	Risk Level L=Low M=Medium H=High	Area of Impact				HOW TO PREVENT IT OR FIX IT
		Resources	Timing	Requirements	Quality	

APPENDIX

REFERENCES

1. Cone, J.G. (2005). "Real teams." Glassboro, NJ: Destination Imagination, Inc.;
    Tuckman, B. W., and M. A. C. Jensen. Stages of small-group development revisited. Group & Organization Management 2.4 (1977): 419-27. Print.

2. "Essential Project Design Checklist." Buck Institute for Education. Web. July 2016, http://www.bie.org/ object/ document/pbl_essential_elements_checklist

3. "Morphological Analysis." Generating innovative solutions: Tools and techniques. Global Creativity Corporation, 2007. Web. July 2012, http://innovationstyles.com/isinc/content/toolstechniques0.aspx

4. "TEACHERS." KWL Chart. Scholastic Inc., n.d. Web. 17 July 2012, http://www.scholastic.com/teachers/lesson-plan/kwl-chart

5. "Paired Comparison Analysis." Decision-making skills training from Mindtools.com. Mind Tools Ltd., 1996. Web. July 2012, http://www.mindtools.com/pages/article/newTED_02.htm

6. Trilling, B., and Charles F. "21st Century Skills: Learning for Life in Our Times." San Francisco: Jossey- Bass, 2009. Print.

7. Bognar-Pinney, R. Instant Challenge information about working with materials.

8. Project Management Institute Educational Foundation. "Project Management Toolkit for Teachers." PMIEF. org. July 2015,http://pmief.org/learning-resources/learning-resources-library/project-management-toolkit-for-teachers

9. Gardner, H. (1983). "Frames of Mind: The Theory of Multiple Intelligences." New York, NY: Basic Books.

APPENDIX

ADDITIONAL RESOURCES

The Destination Imagination Educational Experience is inquiry-guided learning that uses learning theory as its foundation. Below are some readings that support inquiry-guided learning, imagination, and social cognitive theory:

1. Bandura, A. (1991). "Social cognitive theory of self-regulation." Organizational Behavior and Human Decision Processes, Vol. 50(2), 248-287.

2. Bransford, J. D., Brown, A. L., & Cocking, R. R. (1999). "How People Learn: Brain, Mind, Experience, and School." Washington, DC: National Academies Press.

3. Caine, R. N., & Caine, G. (1991). "Making Connections: Teaching and the Human Brain." Alexandria, VA: Association for Supervision and Curriculum Development.

4. Nilson, L. B. (2010). "Teaching at Its Best: A Research-Based Resource for College Instructors "(3rd ed.). San Francisco, CA: Jossey-Bass.

5. Prince, M., & Felder, R. M. (2006). "Inductive teaching and learning methods: Definitions, comparisons, and research bases." Journal of College Science Teaching, 36(5), 14-20.

6. Vygotsky, L. S. (2004). Imagination and creativity in childhood. Journal of Russian and East European Psychology, 42(1), 7 – 97.

7. Creative Problem Solving - See Center for Creative Learning, LLC, http://www.creativelearning.com/index.php/creative-problem-solving/about-cps

NOTES

NOTES

Permission is hereby granted by Destination Imagination, Inc., owner of the copyright to this document, to _____ ,

Team Manager/Coordinator to make 10 copies of this document for educational purposes only, provided these copies are supplied to participants solely for their use in Destination Imagination.

Permission to make and disseminate 10 copies of this material, without alterations, is granted, provided that each copy bears the following credit line: "Copyright Destination Imagination, Inc. 2017, by Destination Imagination, Inc. All rights reserved. Used with permission."

The PDF files for the Team Challenges, Roadmap, and Rules of the Road are available for download at Resources.DestinationImagination.org

Destination Imagination, Inc.   @IDODI   @BoxAndBall   BoxAndBall

DESTINATION IMAGINATION.