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EDUCATIONAL FOUNDATIONS OF DESTINATION IMAGINATION

Destination Imagination is rooted in the creative process and provides a variety of STEAM-based (science, technology, engineering, arts and mathematics) educational experiences designed to reach students where they are—in school, in clubs, and at home—with a consistent approach focused on building valuable and transferable 21st century skills.

Students work together to develop creative solutions to short-term and long-term project-based Challenges. Through this process, students gain the 21st century skills needed to succeed in school, their careers and beyond.

Destination Imagination’s most recognized offering, the Challenge Experience, is available to students around the world and is open to students in kindergarten through university. The Challenge Experience applies the creative process across six Challenge areas: technology, science, engineering, fine arts, improvisation and service learning. Destination Imagination also provides resources tailored to a pre-K audience through its Rising Stars Early Learning Challenge and STEM Pathways educational resource. The Challenge Experience culminates each year with the world’s largest celebration of creativity, Destination Imagination Global Finals.
INTRODUCTION

DESTINATION IMAGINATION PEDAGOGY

The Destination Imagination Educational Experience is a learner-centric opportunity built completely on the creative process and has the capability to sit within the school setting or beyond. Because of the open-ended structure of the experience, student participants engage in deep inquiry and research while infusing prior knowledge and learning, particularly in the areas of STEAM, into student-developed solutions to Challenges. The aspects of learning woven into the Destination Imagination Educational Experience 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:

<table>
<thead>
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<th>PEDAGOGY ELEMENT</th>
<th>LEARNER POINT OF VIEW</th>
<th>EXPLANATION</th>
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<tbody>
<tr>
<td>Ultimate Learner Ownership</td>
<td>We CAN make this happen.</td>
<td>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.</td>
</tr>
<tr>
<td>Resource Awareness</td>
<td>We recognize the value of everything in our solution.</td>
<td>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.</td>
</tr>
<tr>
<td>Clarifying Questions</td>
<td>We ask important, critical questions for clarity.</td>
<td>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 Destination Imagination Challenge Experience offers a Clarification system that allows for questions about the Challenge requirements and provides answers from International Challenge Masters, our Challenge experts.</td>
</tr>
<tr>
<td>Rapid Ideation and Implementation</td>
<td>We process and produce quickly and recognize that success can come from failure.</td>
<td>Quick, creative and critical thinking are encouraged and practiced. Time and resource constraints require fast idea generation, implementation, possible failure and an immediate move to another possible solution for success.</td>
</tr>
<tr>
<td>Authentic Self-Expression</td>
<td>We purposefully express who we are through our innovative solutions.</td>
<td>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.</td>
</tr>
</tbody>
</table>
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. Learners 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 students experience while solving the Classroom Activities included in this guide. The process integrates Bloom’s Taxonomy, the scientific method, 21st century skills, collaborative problem solving, the stages of practical inquiry and whole child education.

Note that the creative process isn’t a straight and linear path, but one that is circular, often looping back to a previous stage or stages. The Classroom Activities in this guide condense the process into a short time frame and must happen rapidly. At times, the process may feel “messy,” but you can help your students move from stage to stage as they create their amazing and innovative solutions.

STAGE ONE: RECOGNIZE
- Becoming aware of the Challenge
- Gaining an in-depth understanding of the Challenge

STAGE TWO: IMAGINE
- Generating ideas with team members
- Focusing on promising ideas
- Creating a project timeline

STAGE THREE: INITIATE & COLLABORATE
- Researching, exploring and experimenting
- Committing to options
- Building and completing all requirements

STAGE FOUR: ASSESS
- Assessing progress
- Reworking or reimagining ideas
- Practicing presenting the solution

STAGE FIVE: EVALUATE & CELEBRATE
- Presenting at a tournament
- Reflecting on and celebrating the experience
COMMON CORE AND STATE STANDARDS

The Classroom Activities in this booklet meet the following educational standards.

**Speaking and Listening Standards**
- Comprehension and collaboration.
- Initiate and participate effectively in a range of collaborative discussions.
- Speaking in respectful ways, listening to others with care, speaking one at a time.
- Ask questions to check understanding.

**Presentation of Knowledge and Ideas**
- Conduct research to solve a problem, narrow inquiry, synthesize data and demonstrate understanding of the subject under investigation.
- Report on a topic, tell a story or recount an experience.
- Choose words and phrases for effect.
- Choose words and phrases to convey ideas precisely.
- Organize an event sequence that unfolds naturally and logically.
- Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events and/or characters.

**Draw, construct, and describe geometrical figures and describe the relationships between them**
- Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
- Develop, use and evaluate probability models.
- Make geometric constructions.
- Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost).

**Draw and identify lines and angles, and classify shapes by properties of their lines and angles**
- Draw points, lines, line segments, rays, angles and perpendicular and parallel lines.

**Geometric Measurement Grades**
- Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same perimeter and different areas or with the same area and different perimeters.
- Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
- Solve addition and subtraction problems.

**Operations and Algebraic Thinking**
- Represent and solve problems involving multiplication and division.

**Measurement and Data**
- Geometric measurement: understand concepts of area and relate area to multiplication and to addition.
INTRODUCTION TO STUDENT ACTIVITIES IN STEAM AND 21ST CENTURY LEARNING

Challenge Activity Learning Objectives

- Mindfulness
- Creativity
- Completion Mindset
- Rapid Prototyping
- Expert Intuition
- Communication
- Collaboration
- Conflict Management
- STEAM Concepts
- Project Management Skills

What are Destination Imagination® Classroom Activities?

The nine, enclosed Classroom Activities have been developed by Destination Imagination, Inc. These activities come from writers in industry and education, incorporate components of STEAM (science, technology, engineering, arts and math) and align with the 21st century skills framework (see www.P21.org).

Each Classroom Activity requires students to engage in collaboration, communication, creativity and critical thinking. During an Activity, students work together to find solutions to presented scenarios. The participants must think on their feet by applying 21st century skills and knowledge to produce a solution within a short time period—usually 10 minutes or less. These Classroom Activities easily fit into any class schedule and are applicable to a wide variety of content and curriculum. Activities included in this guide are primarily task and outcome-based with some requiring a performance aspect. A Task-Based Activity will often require some readily available supplies and the participants will be asked to create a tangible solution. Performance-Based Activities require the participants to devise a presentation aspect that enhances their tangible solution and engages different skills.

How does it work?

Students will collaborate and work together on any given Classroom Activity. The educator or facilitator will first gather all the necessary materials and set up a space for the students to work. Typically, a table and workspace will be sufficient. The educator or facilitator will then read the students the Activity directions and give them a period of time to develop a solution. The solutions may be spoken or acted out or may require creating a tangible solution from the provided materials. Remember, there are many possible solutions to a Classroom Activity. They are intentionally designed to have multiple solutions. You may choose to have groups do the same Activity several times to show how alternate ideas can also work.

If you are working with very young learners, it is important to emphasize working together, a concept that may be new to many of the students. Switch team member roles around or alter the group makeup to ensure that each child has the opportunity to participate fully. Also, keep in mind that you can easily modify the activities to better meet the needs of your group or to suit the materials you have on hand.
CLASSROOM ACTIVITIES

Processing Questions

After facilitating an Activity with the group, it is important that the participants discuss their experience. The educator’s job is to facilitate the discussion as necessary, without telling the students exactly what to do. By processing each Activity, the students will begin to self-assess and become better at both understanding their strengths and working on their weaknesses. Real learning takes place during processing, so do not skip this important part. Destination Imagination Classroom Activities are written so both the educator and the students can benefit from Processing Questions. See sample questions below.

Questions for the students might be:
- What was fun about this Activity?
- Would you change anything you did?
- What new things did you learn?
- How well did your team work together?
- What was the most difficult part of the Activity?

Questions for the educators might be:
- What was enjoyable about the task for the group? Why?
- How did the participants interact with each other and the task? Was the interaction positive or negative?
- What changes could be made to improve the Activity for the group?

Forming a Competition for Student Assessments

Each Activity includes a scoring procedure, which will allow an educator to turn the Activity into a competition. The Activities are designed to engage students, regardless of age or ability level. Everyone can have fun and learn critical life skills through the creative process!

Educator and Student Outcomes

- Skills Development: properties of materials, modeling, presenting, measuring, comparing and contrasting, geometric design, problem solving, planning, organizing, sequencing, perseverance, extending, connecting, controlling, time management, estimating, span technology, testing, aesthetics (value/ethics/art), budgeting, geometry, physics, inferencing, elaboration
- 21st Century Skills: communication, collaboration, creativity, critical thinking, courage, citizenship, computer usage
- How to break complex tasks into smaller tasks
- Teach progress, not perfection
- Positive affirmation
- Identification of student strengths

Materials List (materials can be substituted as necessary):
- 10 Balloons
- 2 Beach Balls
- 2 Buckets
- 4 Cocktail Umbrellas
- 4 Combs
- 3 Cotton Balls
- 2 Pieces of Foil
- 4 Index Cards
- 1 Lei
- 16 Mailing Labels
- 1 Box of Markers
- 2 Nail Clippers
- 1 Large Sheet of Paper or Cardboard
- 1 Box of Paper Clips
- 3 Paper Cups
- 1 Paper Plate
- 2 Paper Towel Tubes
- 6 Pencils
- 3 Ping-Pong Balls
- 15 Chenille Sticks (Pipe Cleaners)
- 15 Plastic Cups
- 1 Plastic Fork
- 2 Plastic Gloves
- 25 Rubber Bands
- 1 Ruler
- 2 Pairs of Scissors
- 10 Sheets of Paper
- 20 Sticky Dots
- 65 Straws
- 1 Ball of String
- 15 Toothpicks
- 10 Twist Ties
- 1 Wooden Board (see Challenge for size)
- 1 “S” hook
SPACE STATION

21st Century and STEAM Learning Concepts

- Materials Science
- Novelty
- Creativity
- Innovation
- Performance Arts and Presentation
- Communication
- Collaboration
- Problem Solving

Challenge

Your TASK is to make 2 devices that could be used in a space station, using known and unknown materials, and then to present a PERFORMANCE in which you show how your devices could be used. For the purpose of this Challenge, a “space station” is a large object that is in orbit around the earth. There is no gravity and space is small and confined.

Time

You will have up to 5 minutes to use your IMAGINATION to make 2 new devices using materials and to plan and practice your PERFORMANCE. You then will have up to 2 minutes to present your PERFORMANCE.

Setup

There is a table with materials for your team to use in solving this Challenge.

Procedure

You are on a space station building 2 new devices.

- Part One (2 minutes): Use the materials on the table to make 2 devices that could be used on a space station. Be creative in how you use the new materials.
- Part Two (2 minutes): Present a PERFORMANCE in which you show how your devices could be used.

Materials

- 1 Piece of Foil
- 3 Chenille Sticks (Pipe Cleaners)
- 2 Pencils
- 1 Paper Plate
- 4 Toothpicks
- 10in (25cm) of String
- 5 Rubber Bands
- 1 Paper Towel Tube
- 3 Cotton Balls
- 4 Cocktail Umbrellas
- 1 Lei
- 4 Combs

A piece of paper and a sharpened pencil will also be available for your team to use as your plan and present your PERFORMANCE.

Scoring

You will receive up to:

A. 20 points (40 points maximum) for the creativity of each of your devices.
B. Up to 20 points for how creatively you use the new materials in your devices.
C. Up to 20 points for the creativity of the PERFORMANCE.
D. Up to 20 points for how well your team works together.
JUST STRAWS

21st Century and STEAM Learning Concepts
- Structural Engineering
- Architectural Design
- Mathematical Theory
- Creative Expression
- Materials Science

Challenge
Your Architectural Team has been asked to build a scale model of a new office building for presentation. Your TASK is to build an office tower that is as tall as possible made only of straws in a 12in x 12in (30cm x 30cm) space and then to present the attributes of the design.

Time
You will have up to 2 minutes to use your IMAGINATION to discuss strategy and up to 5 minutes to build your tower.

Procedure
- Part One (2 minutes): Discuss strategy. During Part One, you may NOT touch any of the straws.
- Part Two (5 minutes): Build your tower within a 12in x 12in (30cm x 30cm) square and identify its attributes.
- Part Three: Present the attributes of your tower.

Materials
- 30 Straws in 3 Sizes
- 2 Pairs of Scissors
- 2 Nail Clippers

The scissors and nail clippers may NOT be part of the tower.

Scoring
You will receive:

A. 2 points (60 points maximum) for each inch (2.5cm) of height of your tower at the end of Part Two.
B. Up to 20 points for how creatively you attempt to solve the TASK.
C. Up to 20 points for how well your team works together.
YOU BUILD IT, YOU MEASURE IT

21st Century and STEAM Learning Concepts
- Structural Engineering
- Architectural Design
- Mathematical Theory
- Creative Expression
- Materials Science
- Communication
- Collaboration
- Critical Thinking
- Problem Solving
- Geometrical Measurement

Challenge
Your TASK is to build a tower that is as high as possible and then to try to estimate how tall it is.

Time
You will have up to 4 minutes to use your IMAGINATION to build your tower and figure out how you are going to tell how tall the tower is, and then up to 1 minute to report how tall you think the tower is and why you believe this is the correct height.

Setup
In the middle of the room is a table with materials.

Procedure
- Part One (4 minutes): Use the materials on the table to build a tower that is as high as possible. You may build your tower on the floor or on the table. The tower may not be attached to anything and may only touch the floor or the table. In Part One you should also figure out you are going to tell how tall the tower is. You will be warned when you have 1 minute remaining and when you have 30 seconds remaining in Part One.
- Part Two (1 minute): Report how tall you think the tower is and why. At the end of Part Two, your tower will be measured for height and compared to your estimate.

Materials
- 1 Paper Cup
- 1 Plastic Fork
- 1 Rubber Band
- 2 Mailing Labels
The mailing label may NOT be attached to the floor or table.

Scoring
You will receive:

A. Variable points depending upon how closely you guess the tower’s height: 20 points if your guess is within 1in (2.5cm) of the actual height; 10 points if your guess is more than 1in but less than 2in (5.0cm) higher or lower than the actual height.

B. 1 point (20 points maximum) for each 2in (5.0cm) of height of your tower at the end of Part Two.

C. Up to 20 points for how creatively you figure out the height of the tower.

D. Up to 20 points for how creatively you use the materials.

E. Up to 20 points for how well your team works together.
NEW CONSTELLATIONS

21st Century and STEAM Learning Concepts

- Creativity
- Critical Thinking
- Imagination
- Communication
- Collaboration
- Novelty
- Artistic Expression
- Performance Arts
- Creative Expression

Challenge
Your TASK is to create a new constellation and then give a PERFORMANCE in which you tell the story of how the constellation got its name.

Time
You will have up to 4 minutes to use your IMAGINATION and PROBLEM SOLVING SKILLS to create your constellation, as well as to plan and practice your PERFORMANCE, and then up to 2 minutes to present your performance.

The Scene
In the center of the room is a large piece of paper. By placing sticky dots on the paper and connecting them, a constellation can be created.

- Part One (4 minutes): Place sticky dots on the piece of paper to create a new constellation. You may also use Part One to plan and practice your skit.
- Part Two (2 minutes): Present your PERFORMANCE. In your performance, you should tell the story of how the new constellation got its name.

Materials
- Large Sheet of Paper or Cardboard
- 1 Box of Markers
- 20 Sticky Dots

A piece of paper and a sharpened pencil also will be available for your team to use as you plan and practice your PERFORMANCE.

Scoring
You will receive:

A. 20 points if you create a new constellation in Part One.
B. Up to 10 points for the creativity of the name of your new constellation.
C. Up to 20 points for the creativity of how the new constellation got its name.
D. Up to 30 points for the creativity of your PERFORMANCE.
E. Up to 20 points for how well your team works together.
WILL IT STICK?

21st Century and STEAM Learning Concepts
- Structural Engineering
- Collaboration
- Architectural Design
- Critical Thinking
- Mathematical Theory
- Problem Solving
- Creative Expression
- Material Science

Challenge
Your TASK is to build a structure that is as tall as possible on a wooden board. The structure needs to stick to the board when the board is turned upside down.

Time
You will have up to 6 minutes to use your IMAGINATION to build your structure.

Setup
You will be provided with a wooden board and materials.

Procedure
You will have up to 6 minutes to use the materials to build a structure that is as tall as possible and that will stick to the board when the board is turned upside down. You must build your structure on the wooden board. After 6 minutes (or sooner), the height of the structure will be measured. You will then have a chance to turn the board with the structure upside down to see if your structure will stick to the board. When turning the board upside down, you may only touch the board. You will receive additional score if nothing falls off your structure for 10 seconds after the board has been turned upside down.

Materials
- 2 Sheets of Paper
- 1 Wooden or Foam Board
- 1 Paper Cup
- 5 Paper Clips
- 5 Straws
- 3 24in (60cm) Pieces of String
- 8 Twist Ties
- 10 Rubber Bands
- 6 Mailing Labels

The mailing labels may NOT be attached to the board. Your team will also have a measuring tape to use but this may NOT be part of your structure.

Scoring
You will receive:
A. 2 points (40 points maximum) for each inch (2.5cm) of height of your structure at the end of Part One.
B. 20 points if nothing falls off your structure after the board has been turned upside down for 10 seconds.
C. Up to 20 points for how creatively you use the materials.
D. Up to 20 points for how well your team works together.
MULTI-TOWERING

21st Century and STEAM Learning Concepts

- Structural Engineering
- Architectural Design
- Mathematical Theory
- Creative Expression
- Materials Science
- Communication
- Collaboration
- Critical Thinking
- Problem Solving

Challenge

Your TASK is to build as many freestanding towers, at least 12in (30cm) high, using as many different materials as you can that will hold a balloon on top. For the purpose of this Challenge, “freestanding” means that the tower is NOT attached to anything.

Time

You will have up to 6 minutes to use your IMAGINATION to build your structure.

Procedure

Use the materials to build as many freestanding towers as you can that are at least 12in (30cm) tall each with a balloon on top. To receive score, you must move each tower to the 2nd table, where it will immediately be verified as being 12in (30cm) tall. No team member may be touching a tower when this measurement is made. Only towers that have been moved and measured by the end of the 6 minutes will receive score.

Materials

- 1 Piece of Foil
- 5 Chenille Sticks (Pipe Cleaners)
- 2 Mailing Labels
- 10 Balloons
- 4 Straws
- 3 Rubber Bands
- 3 Paper Clips
- 4 Index Cards
- 2 Pencils
- 2 Plastic Gloves
- 2 Pieces of Paper
- 2 Pencils
- 2 Pieces of Paper
- 1 Paper Cup
- 1 Ruler
- 12in (30cm) Piece of String

Scoring

You will receive:

A. 10 points (60 points maximum) for each freestanding tower that has been moved to the 2nd table and is at least 12in (30cm) tall.

B. Up to 20 points for how creatively you use the materials.

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

21st Century and STEAM Learning Concepts
- Structural Engineering
- Architectural Design
- Mathematical Theory
- Materials Science
- Novelty
- Rapid Prototyping
- Geometric Measuring
- Project Planning
- Creativity
- Collaboration

Challenge
Using the materials provided, build a bridge between two beach balls that will hold weight.

Time
You will have 6 minutes to build and test a bridge that will hold weight.

Procedure
Build a bridge between two beach balls with as much span as possible, and then add a box of paper clips to the middle of the bridge. You will have up to 6 minutes to build and test your bridge.

Materials
- 2 Buckets
- 2 Beach Balls
- 10 Toothpicks
- 1 Box of Paper Clips
- 1 “S” Hook
- 10 Straws
- 3 Small Rubber Bands
- 5 Chenille Sticks (Pipe Cleaners)
- 3 Mailing Labels
- 2 Pieces of Paper

Scoring
You will receive:
A. 1 point for each inch (2.5cm) of distance underneath the bridge between the two beach balls.
B. 10 points if it holds a box of paper clips.
C. Up to 10 points for creativity and artistic design.
D. Up to 10 points for teamwork.
STACK ‘EM UP

21st Century and STEAM Learning Concepts

- Communication
- Problem Solving
- Creativity
- Collaboration
- Teamwork
- Completion Mindset
- Critical Thinking
- Materials Science
- Innovation
- Problem Solving
- Teamwork
- Materials Science
- Innovation

Challenge

Without touching the cups, build a pyramid beginning with a base of 5 cups ending up with one cup (lip up) on top that will hold 3 Ping-Pong balls.

Time

You will have 6 minutes to plan and build your pyramid.

Procedure

Using the materials provided and without touching the cups or the Ping-Pong balls, build a pyramid that has one cup on top that holds 3 Ping-Pong balls.

Materials

- 15 Plastic Cups
- 2 Rubber Bands
- 1 Paper Towel Tube
- 4 Straws
- 2 12in (30cm) Pieces of String
- 3 Mailing Labels
- 2 Chenille Sticks (Pipe Cleaners)
- 3 Ping-Pong Balls

Scoring

You will receive:

A. Up to 10 points for teamwork.
B. 10 points if the pyramid is structurally sound.
C. Up to 10 points if the top cup holds 3 Ping-Pong balls.
D. Up to 10 points for creativity and artistic design.
KIDS’ TV

21st Century and STEAM Learning Concepts

- Performance Arts
- Creative Expression
- Communication
- Collaboration
- Idea Generation
- Idea Processing
- Creativity
- Novelty

Challenge

Your team is to present a PERFORMANCE in which you create a new television show for kids.

Time

You will have up to 4 minutes to use your IMAGINATION to create and practice your television show, and then up to 2 minutes to present your PERFORMANCE.

The Scene

Kids have been watching their favorite television shows for many years. WKDI-TV needs a new show for kids and has hired your team. In your television show you will need a main character, as well as a commercial. Be sure to announce the name of your new show before you begin your skit.

Materials

- 1 Box of Markers
- 1 Pair of Scissors
- 10 Pieces of Paper
- 1 Pencil

The markers and scissors may NOT be damaged and may NOT be used in your skit. A piece of paper and a pencil also will be available for your team to use as you plan and present your PERFORMANCE.

Scoring

You will receive:

A. 10 points if your skit contains a commercial.
B. Up to 10 points for the creativity of the name of your TV show for kids.
C. Up to 20 points for the creativity of your main character.
D. Up to 20 points for the creativity of your commercial.
E. Up to 20 points for the creativity of your PERFORMANCE.
F. Up to 20 points for how well your team works together.
### Challenge Activity Generator

Add some creativity, teamwork, and excitement to your classroom, dinner table, or next meeting with this great Challenge generating tool! Gather all of the materials in Column A, then choose one of the three types of Challenges below and follow the instructions.

#### Performance-Based Challenge

Randomly choose one or more items from A and one item from D and E and put on a show.

#### Task-Based Challenge

Randomly choose one or more items from A and one item from B and C and make it happen.

#### Combination Challenge

Randomly choose one or more items from A and one or more items from B, C, D or E and get busy.

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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<td>Cereal Box</td>
<td>Cosmetic Item</td>
<td>Move</td>
<td>Cave</td>
<td>Talking to the Fish</td>
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<tr>
<td>Newspaper</td>
<td>Vehicle</td>
<td>Make a Job Easier</td>
<td>The Moon</td>
<td>Late!</td>
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<tr>
<td>Deck of Cards</td>
<td>Aircraft</td>
<td>Keep Us Healthy</td>
<td>Rainforest</td>
<td>Lost All of Your Money</td>
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<tr>
<td>Linguini</td>
<td>Cleaning Tool</td>
<td>Make People Laugh</td>
<td>Tree House</td>
<td>Making a Fancy Meal</td>
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<tr>
<td>Cotton Balls</td>
<td>Sculpture</td>
<td>Cool People Off</td>
<td>Jungle</td>
<td>Cleaning the Kitchen</td>
</tr>
<tr>
<td>Cotton Swabs</td>
<td>Game</td>
<td>Signal</td>
<td>Under the Ocean</td>
<td>Trying to Fly</td>
</tr>
<tr>
<td>Aluminum Foil</td>
<td>Structure</td>
<td>Hold a Tennis Ball</td>
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<td>A Really Wet Day</td>
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<tr>
<td>Poster Board</td>
<td>Shelter</td>
<td>Protect</td>
<td>Antarctica</td>
<td>Lost Your Notebook</td>
</tr>
<tr>
<td>Straws</td>
<td>Container</td>
<td>Make Noise</td>
<td>Concert</td>
<td>Are Very, Very Hungry</td>
</tr>
<tr>
<td>Paper Plate</td>
<td>Kitchen Tool</td>
<td>Hit a Target</td>
<td>Storybook Land</td>
<td>Playing a New Game</td>
</tr>
</tbody>
</table>
**IMAGINE: IDEA GENERATING**

**ABC Brainstorming**

“ABC Brainstorming” is a thinking tool that can help individuals or teams generate ideas. By forcing teams to think differently than they would if thinking freely, thinking tools can help your team discover options they might not have generated, or select ideas they might not have considered.

In this ABC Brainstorming session, have the team draw the grid below on a blackboard, whiteboard or a flip chart. Then generate ideas that start with each letter. Try to address a simple problem, one to which the team is not particularly attached, 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.

_Educator/Facilitator Tip:_ When your team is more comfortable with the technique, they can use this tool to generate ideas for real-world projects and challenges.

<table>
<thead>
<tr>
<th>Letter</th>
<th>Idea</th>
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<tbody>
<tr>
<td>A</td>
<td>N</td>
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<tr>
<td>B</td>
<td>O</td>
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<tr>
<td>C</td>
<td>P</td>
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<td>D</td>
<td>Q</td>
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<td>E</td>
<td>R</td>
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<td>F</td>
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<td>G</td>
<td>T</td>
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<td>H</td>
<td>U</td>
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<td>I</td>
<td>V</td>
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<td>J</td>
<td>W</td>
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<td>K</td>
<td>X</td>
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<tr>
<td>L</td>
<td>Y</td>
</tr>
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<td>M</td>
<td>Z</td>
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</tbody>
</table>
**INITIATE AND COLLABORATE: IDEA PROCESSING**

**Choice Helper**

One way the team can choose ideas is by using “Choice Helper.” This activity is designed to help a team assess ideas, after they have been generated, according to factors the team members consider important. For this activity, form teams and provide each team member with a few pieces of paper. Choice Helper allows a team to narrow its choices and to evaluate options in an orderly manner while utilizing critical thinking skills.

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 community service project to complete, 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 in choosing the best ideas. Using the same example, the team might decide that low cost, easily available materials, needed skills, execution time and uniqueness are the criteria it will use to judge each service project. (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, the points are averaged. The results can direct the team’s discussion until they can come to an orderly and well-considered decision.

<table>
<thead>
<tr>
<th>Option</th>
<th>Criterion 1</th>
<th>Criterion 2</th>
<th>Criterion 3</th>
<th>Criterion 4</th>
<th>Criterion 5</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>3.</td>
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<td>4.</td>
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<td>5.</td>
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Make sure the team understands how to use this tool, and also encourage them to return to the tool in the future. How can the team use this tool for its future project or Challenge solutions?
PROJECT MANAGEMENT

The world runs on projects, and your students will be running several small projects as they work through the Classroom Activities included in this guide. Destination Imagination has been working with the Project Management Institute Educational Foundation (PMIEF) to give students tools and skills that will help them solve the Classroom Activities and help them handle future school or work projects. A shortened version of the project management process is introduced here and includes four steps: Define, Plan, Do and Review.

DEFINE
Beginning a project, identifying the problem or Activity and agreeing to work together to solve it

PLAN
Generating ideas, defining goals and creating a project plan and timeline

DO
Experimenting with potential solutions; completing the work defined PLAN stage; working with others to complete the project; tracking progress on the project goals and timelines; ensuring that the products meet the requirement of the Activity; identifying any areas of the project that need changing; practicing and preparing the solution for presentation

REVIEW
Finalizing the project; presenting the solution to an audience; reflecting on what was learned and what could have been done differently; celebrating the completion of the project
The following chart outlines the steps to the project management process and lists questions for the students to ask themselves before they begin creating their solution to the Classroom Activity. During the first two or three Classroom Activities, have the students complete the first two sections of this form before they begin to work. After they have more experience, have them practice this process (without the form) as soon as the time allotted for the Classroom Activity begins. The goal is to get the students to internalize this process, so no matter the situation or problem they face, they can use this process to find a solution.

<table>
<thead>
<tr>
<th>STEP</th>
<th>QUESTIONS TO ASK/THINGS TO DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFINE</td>
<td>Understand the requirements of the Classroom Activity:</td>
</tr>
<tr>
<td></td>
<td>- What do you need to have done at the end of the Activity?</td>
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<td></td>
<td>- What elements of the Activity receive score?</td>
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<td></td>
<td>- Are there limitations in the scoring? Are the number of points you may earn limited or are the points unlimited?</td>
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<td></td>
<td>- What are the materials?</td>
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<tr>
<td></td>
<td>- How much time do you have?</td>
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<td></td>
<td>- Is there more than one part? If so, what has to be accomplished in each part?</td>
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<tr>
<td>PLAN</td>
<td>Create a plan to complete the Activity:</td>
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<tr>
<td></td>
<td>- How much time are you going to dedicate to generating ideas? Consider generating ideas in 30-40 seconds.</td>
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<tr>
<td></td>
<td>- What ideas do you have to meet the requirements of the Activity?</td>
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<td></td>
<td>- How can the materials be used?</td>
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<td></td>
<td>- What is your final idea?</td>
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<td></td>
<td>- Who is going to do what? Can you divide the work so it gets done on time?</td>
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<td></td>
<td>- What is your backup plan if your first solution doesn’t work?</td>
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<tr>
<td></td>
<td>- How will you know when your solution is complete?</td>
</tr>
<tr>
<td>DO</td>
<td>Complete the Activity:</td>
</tr>
<tr>
<td></td>
<td>- Are you checking your time regularly?</td>
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<tr>
<td></td>
<td>- Is your solution working? If not, do you want to try your back-up plan?</td>
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<tr>
<td></td>
<td>- Does everyone have a role? Is everyone fulfilling their roles?</td>
</tr>
<tr>
<td></td>
<td>- Does your final solution meet the requirements of the Activity?</td>
</tr>
<tr>
<td>REVIEW</td>
<td>Discuss your team process and solution after completing the Classroom Activity:</td>
</tr>
<tr>
<td></td>
<td>- Did you follow your plan?</td>
</tr>
<tr>
<td></td>
<td>- What would you do differently next time?</td>
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<tr>
<td></td>
<td>- What could you improve?</td>
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<tr>
<td></td>
<td>- Did your team work well together?</td>
</tr>
</tbody>
</table>
Our Challenges are open-ended and enable students to learn and experience the creative process while fostering their creativity, curiosity and courage.

WHO
The Destination Imagination Challenge Experience is open to all kindergarten through university level students worldwide. Students form teams of up to 7 members, select their preferred Challenge and work together to develop a solution to the Challenge. Each team has at least one Team Manager (often a parent or teacher) who helps keep the team on track, but does not assist or interfere with the team’s solution to the Challenge.

WHAT
Our 21st century learning opportunity is cross-curricular and complements K-12 education by fostering curiosity, courage and creativity. All of Destination Imagination’s academic Challenges are designed to teach students the creative process—a system of learning that is at the root of all innovation and a child’s ability to bring an idea to life. We offer seven engaging academic Challenges—Engineering, Technical, Scientific, Fine Arts, Improvisational, Service Learning and Early Learning. Previews of the Team Challenges are available at www.destinationimagination.org.

WHEN
Each season begins in September and ends in May. Depending on the Challenge, teams typically spend 2 to 4 months developing and practicing their Challenge solutions. Teams have the opportunity to showcase their solutions at local tournaments, many of which take place between February and April. When a team qualifies at the state level, they are invited to compete at Global Finals—the world’s largest celebration of student creativity.

WHERE
The Destination Imagination Challenge Experience spans 45+ states and 20+ countries. It is often run as an after-school program or incorporated into a school’s electives curriculum. Students may participate in Destination Imagination even if their school district does not offer the Challenge Experience. Team Challenge solutions are assessed at regional, state or country tournaments, where teams can celebrate creativity with their peers. Each year, over 38,000 volunteers help run 200 tournaments around the world.

WHY
Through the Destination Imagination Challenge Experience, students improve in creative and critical thinking, explore their curiosity, build on their unique strengths, learn how to design and manage a project and gain the skills needed for the 21st century workforce.