2023–24 CHALLENGE PREVIEWS

**PINBALL HEROES**

**TECHNICAL**

Action, adventure, challenges to overcome! See the lights flashing and listen to the buzzers and bells as your team brings a pinball game to life! Hone your pinball skills and aim for the high score when you try this year’s Technical Challenge!

- Design and build a pinball system through which a pinball moves and interacts with 3 machine modules.
- During the Presentation, move the pinball through the pinball system for as long as possible.
- Create and present an action/adventure story about a hero who goes on an extraordinary mission.
- Create and present two Team Choice Elements that show off the team’s interests, skills, areas of strength, and talents.

**GOING THE DISTANCE**

**ENGINEERING**

It’s a bird, it’s a plane...no...it’s a beanbag! Who can predict how far the beanbag will fly or where it will come to rest? In this season's Engineering Challenge, you will test your accuracy as you launch beanbags using a launching device and tell a story about what happens when things do not go exactly as planned.

- Design and build a modular device that will be assembled and then tested in two different configurations during the Presentation.
- Complete launch tests to test how far and how accurately your modular device can launch a bean bag in each configuration.
- Transform the modular device from one configuration to the other.
- Create and present a story in which everything is going according to plan until a catalyst occurs.
- Create and present two Team Choice Elements that show off the team’s interests, skills, areas of strength, and talents.

**BLAST FROM THE PAST**

**SCIENTIFIC**

A broken jar, a bit of stone—the remains of the past are all around us. Have you ever wondered what those things might have been used for or what they meant to the people who made them? What archaeological mysteries will be revealed in this year’s Scientific Challenge?

- Create and present a story about a character whose discovery of an artifact leads to a finding.
- Include an archaeological investigation that contributes to the finding.
- Design and create a puppet that will portray a character from the past.
- Create and present two Team Choice Elements that show off the team’s interests, skills, areas of strength, and talents.

**IN MOTION**

**FINE ARTS**

Art has the power to move us or stop us in our tracks. In this year’s Fine Arts Challenge, you will bring a work of visual art to life and create your very own piece of kinetic art. What work of art will inspire you?

- Create and present a story inspired by a work of visual art.
- Include a static character and a dynamic character in the story.
- Reimagine the work of visual art as performance art and include the reimagined art in the Presentation.
- Design and create one piece of kinetic art that uses technical methods to create movement.
- Create and present two Team Choice Elements that show off the team’s interests, skills, areas of strength, and talents.
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**SO EXTRA IMPROVISATIONAL**

Sometimes less is more, or more is less... Your team will use your improv skills to create a 2-act skit, complete with a costume created on the spot! An intensifier will tell your team whether you’ll maximize or minimize elements of your skit in the second act. Find out how things will change with the toss of a coin in this year’s Improvisational Challenge!

- Create and present a 2-act improvisational skit based on a scenario.
- Incorporate a stock character into the skit.
- Research costume design and use a costume design kit to create a costume.
- Use an intensifier to minimize or maximize the scenario, stock character, and costume.

**UNCHARTED SERVICE LEARNING**

Your team will dive into a world of fantasy in this year’s Service Learning Challenge. Use a map to guide you on your quest, but beware of the danger that awaits! What will you seek? Fame? Fortune? Or to make the world a better place? The quest is about to begin!

- Identify, design, carry out, and evaluate a project that addresses a need in a real community.
- Create and present a fantasy story about a character who goes on a quest.
- Design and create a fantasy map that uses technical methods to represent location information from the story.
- Create and present two Team Choice Elements that show off the team’s interests, skills, areas of strength, and talents.

**MAKING A SPLASH EARLY LEARNING**

From the busy coral reef, to the inky depths of the midnight zone, to the shallows of a lake bed, there are lots of amazing underwater habitats to visit. Where might underwater creatures go for a vacation? Come explore life under the sea in this season’s Early Learning Challenge!

- Research underwater habitats.
- Create and present a play about a group of underwater creatures who go on vacation to an underwater habitat.
- Design and build a model of a landmark the underwater creatures visit.
- Create scenery to show the underwater habitat.
- Create and present one Team Choice Element that shows off the team’s interests, skills, areas of strength, and talents.

**INSTANT CHALLENGE**

Instant Challenges require teams to engage in quick, creative, and critical thinking. At a tournament, a team will receive an Instant Challenge and the materials with which to solve it.

- The team members must think on their feet by applying appropriate skills to produce a solution in a period of just five to eight minutes.
- Instant Challenges are performance-based, task-based, or a combination of the two.
- Although each Instant Challenge has different requirements, all Instant Challenges reward teams for their teamwork.
- Instant Challenges are kept confidential until the day of the tournament.