Mission Patch

Background

While in training, the crew of every Space Transport System (STS) designs a patch that identifies its unique mission. Since the first mission in April 1981, more than 450 astronauts have participated in more than 100 missions. Most Shuttle crews consist of the commander, a pilot, mission specialists, and payload specialists. Each member of the crew contributes to the patch design. The team uses color, shape, images, and text to represent different aspects of their mission. Here are two examples.

STS 51–L CREW INSIGNIA—This mission patch symbolizes the mission of shuttle flight 51-L, to fly and to teach. The shuttle, being launched from the United States of America, encircles the planet to signify its U.S. presence in space to explore new frontiers. The shuttle in flight with open cargo doors represents the 51-L mission to launch a communication satellite (TDRSS), to collect data from Comet Halley, and to conduct scientific experiments. The apple next to the teacher's name signifies the educational mission of the crew to touch the future through the lessons taught in space. The scene is encircled by the surnames of the crew members. They were astronauts Francis R. (Dick) Scobee, commander; Michael J. Smith, pilot; Ron McNair, Ellison Onizuka, and Judy Resnik, all mission specialists; Greg Jarvis, payload specialist; and Christa McAuliffe, teacher.

STS-98 CREW INSIGNIA—This mission marked a major milestone in assembly of the International Space Station (ISS). Atlantis' crew delivered the United States Laboratory, Destiny, to the ISS. The crew patch depicts the Space Shuttle with Destiny held high above the payload bay just before its attachment to the ISS. Red and white stripes, with a deep blue field of white stars, border the Shuttle and Destiny to symbolize the continuing contribution of the United States to the ISS. The constellation Hercules, seen just below Destiny, captures the Shuttle and Station's team efforts in bringing the promise of orbital scientific research to life. The reflection of Earth in Destiny's window emphasizes the connection between space exploration and life on Earth. Shuttle crew members are: Kenneth Cockrell, commander; Mark Polansky, pilot; and mission specialists Robert Curbeam, Marsha Ivins, and Thomas Jones.

Skills

- Team building
- Team patch design

Objectives

Students will:

- Identify attributes of mission patches.
- Design, draw, and describe the attributes of their own mission patch.

Activity Overview

Students will work in teams of four. They will read two mission patch descriptions and observe the patches. Using shape, color, images, and text, they will design their own crew patch.

Key Question

How can a team create a graphic design that represents all of the members and the team mission?

Key Concept

- Shape, color, images, and text can be used to create a graphical representation of a mission.

Materials & Preparation

- Mission Patch Descriptions
- Drawing supplies

1. Divide students into teams of four.
2. Using a thinking web have students brainstorm ideas for their mission patch.
3. Once students have developed some ideas, they need to come to a consensus on how to design the patch. **Note:** Because this is a team-building activity, it is important to let students come to a consensus rather than to vote on the design.

4. Once consensus has been reached, students will begin designing their patch.
5. Once students have completed their patch design, assemble a gallery of patches on the wall.
6. Once all of the patches are on the wall, have students do a gallery walk.
7. Have students look at each patch and write down their interpretation of the design.
8. Have students compare their interpretations of each design to the original patch description.

Management

This activity can be completed in one class period.

Reflection & Discussion

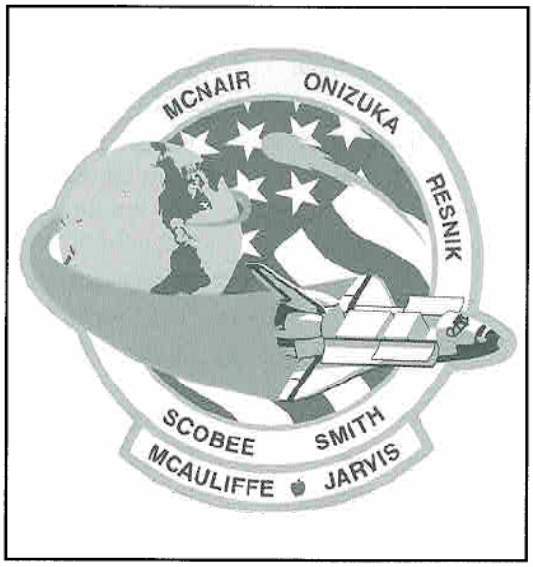
1. If you will all be flying the same mission, how come each of the patches are different?
2. What was difficult about reaching a consensus?
3. What kind of consideration went into planning your class patch?
4. How can visual images inspire teamwork and group missions?

Transfer & Extension

1. Research upcoming shuttle missions and their mission's patch. Keep a wall of patches for each shuttle mission throughout the school year.
2. Boy Scouts/Girl Scouts get badges for skills they master. What do their badges represent?
3. Write to your regional NASA center for current mission patch stickers or contact CORE.
4. Create a mission patch for any other programs students may be involved in. (Scouts, Band, Sports, Community Service)

STUDENT WORKSHEET

Mission Patch Description



51-L Mission Patch

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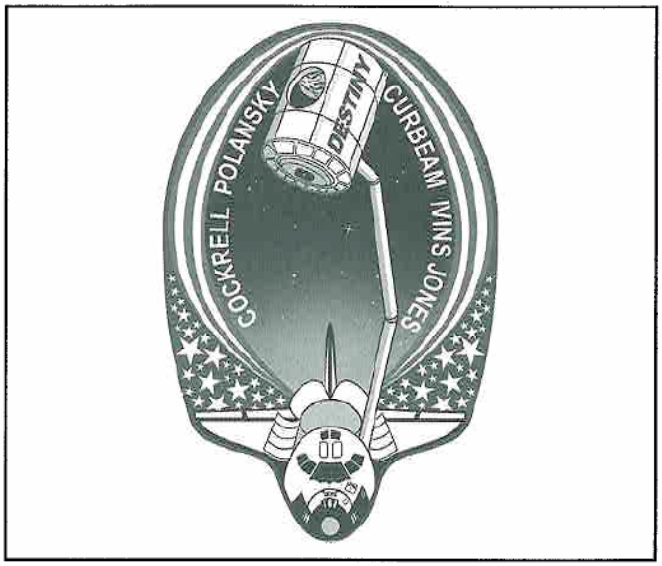

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