



## Design A Mission Patch Pre-Lab Lesson Plan – Teacher Guide Grades – Kindergarten thru Third



### **Overview:**

This activity focuses on having the students work in teams to create a mission patch that represents each member of their team. The *Mission Specialist* will share the team's patch on the day of the e-Lab and explain the meaning behind their patch.

For this e-Lab we suggest dividing your students into 5 teams (Team A, Team B, Team C, Team D, and Team E). Each member of the team is going to be assigned a specific job within the e-Lab. There are 5 jobs (*Mission Specialist, Fitness Coach, Glove Technician, Science Officer, and Equipment Designer*). If you have more than 5 students on a team you will have more than one student assigned to a specific job (example – you will have 2 *Mission Specialists*, etc.).

### **Materials:**

Each team (5 teams: A, B, C, D and E) will need the following supplies:

- Scrap paper
- Paper (cardstock is recommended, but any kind of paper will work)
- Pencils, markers, crayons, colored pencils
- Scissors and glue (optional – if you want the students to cut designs and glue into place)

You will need one copy of the following:

- Mission Patches Background Information Handout
- Mission Patch Example Handout
- Team/Job Assignment Tracking Sheet
- Astronaut Job Cards

You will also be viewing a 3-minute video, so you will need:

- Mission Patch Video (Located on our website)
- Video viewing equipment

### **Getting Ready:**

- Print 1 copy of Mission Patches Background Information Handout.
- Print 1 copy of Mission Patch Sample Handout.
- Print 1 copy of Team/Job Assignment Tracking Sheet.
- Print 1 copy of Astronaut Job Cards.
  - This document is color coded so that the Mission Specialist position has red font and the Fitness Coach has green font. Feel free to print in color to see the font or print in black and white on colored paper.
- Locate the Mission Patch Video (located on our website) and prepare the technology needed to view the video.
- Make sure you have enough materials (listed above) for each team and assemble them in the center of each team table.

- Assign the students to a team (A, B, C, D, or E).
- Assign each person within each team one of the following jobs: *Mission Specialist, Fitness Coach, Glove Technician, Science Officer, and Equipment Designer*.
  - A tracking sheet is attached to this lesson plan so you can keep track of which student you assigned to which team/position. You will need this document on Mission Day to pass out their job cards. You may tell them their jobs if you would like, but please refrain of passing out their job cards until mission day.

**Procedure:**

For the e-Lab each team will need to be represented by a mission patch. They will be designing their mission patch today. Before students begin their mission patch design have them view the Mission Patch video. You can also read the *Mission Patches Background Information Handout* that contains background information about mission patches, as well as, show the students the *Mission Patch Example Handout*. Talk about what each mission patch contains.

Explain that the mission patch needs to be a reflection of the whole team. It should contain the name of each member and something specific to represent them. Refer back to the previous examples on the handout, if needed.

The students can have a brainstorming session **BEFORE** beginning the actual designing of the patch. Have each student draw (on scrap paper) what he/she thinks is important about their team. Then as a group share their ideas and figure out how to incorporate all the shared information on the team mission patch. The mission patch should not be larger than an 8.5 x 11 sheet of paper. It can be various shapes, not just a rectangle. Explain this concept when showing the mission patches from previous NASA missions.

This process should take approximately 60 minutes for completion.

**Explanation:**

See Mission Patch Background Information Handout for importance of designing a mission patch. Students can feel free to include information about their school (mascot, etc.) on their mission patch to represent what they have in common.

**Assessment:**

After each team has completed their mission patch, allow time for each team to share their design. During the e-Lab, the *Mission Specialist* on each team will be the one explaining the mission patch live to the Flight Director at the Challenger Learning Center. Have the *Mission Specialist* share the team’s patch with the whole class (as practice) and explain the choices that were made to create the final product. After each team has explained their mission patch, display them around the classroom until the day of the e-Lab. On the day of the e-Lab, the mission patches will need to be placed at each team table.

## **Mission Patches Background information**

The crew of Gemini 5 created the first mission patch in 1965. The tradition of creating a mission patch before the mission continues still today.

Mission patches are created for space missions. For every mission to space, NASA astronauts design a mission patch. The patch represents the work the astronauts will do during the mission. The astronaut crew designs the mission patch for their mission.

Some things included on the patch are the names of the crew, name of the space vehicle, the mission number and anything else that the crew feels is important to their mission. Mission patches are a way to bring everyone working on a mission together. You can include pictures and symbols that are important to the mission.

The mission patch tells the story of the astronaut crew and what they hope to accomplish on their mission. The astronauts and team members will all wear the mission patch on their uniforms.

Mission patches are an important part of every space mission. Your mission patches will be important during your upcoming e-Lab.

# Mission Patch Examples



## TEAM/JOB ASSIGNMENT TRACKING SHEET

<b>TEAM A</b>	
<b>Mission Specialist</b>	
<b>Fitness Coach</b>	
<b>Glove Technician</b>	
<b>Science Officer</b>	
<b>Equipment Designer</b>	

<b>TEAM D</b>	
<b>Mission Specialist</b>	
<b>Fitness Coach</b>	
<b>Glove Technician</b>	
<b>Science Officer</b>	
<b>Equipment Designer</b>	

<b>TEAM B</b>	
<b>Mission Specialist</b>	
<b>Fitness Coach</b>	
<b>Glove Technician</b>	
<b>Science Officer</b>	
<b>Equipment Designer</b>	

<b>TEAM E</b>	
<b>Mission Specialist</b>	
<b>Fitness Coach</b>	
<b>Glove Technician</b>	
<b>Science Officer</b>	
<b>Equipment Designer</b>	

<b>TEAM C</b>	
<b>Mission Specialist</b>	
<b>Fitness Coach</b>	
<b>Glove Technician</b>	
<b>Science Officer</b>	
<b>Equipment Designer</b>	