


Kindergarten Astronauts and Space Gloves

created with  taskstream**Author:**Christina Zecher**Based on lesson by:****Date created:** 03/09/2013 12:47 PM MST ; **Date modified:** 03/09/2013 3:06 PM MST

VITAL INFORMATION

Subject(s)	Reading, Science, Social Studies
Objective(s)	<p>Students will be able to:</p> <ul style="list-style-type: none">• recognize that astronauts are explorers of space• participate and communicate results of a simple investigation• actively engage in reading of an informational text• ask and answer questions related to an informational text on astronauts <p>The mastery of these objectives will be measured in large part by observations noted during the class reading, the creation of the word web, and in the discussion held after the investigation.</p>
Purpose	<p>The purpose of this lesson is to familiarize students with the role and importance of astronauts and space exploration. Additionally, they will build scientific inquiry skills and gain an understanding of the challenges astronauts face by carrying out an investigation and discussing the results afterwards.</p>
Prerequisite Skills	<ul style="list-style-type: none">• Able to listen and comprehend an informational text that is grade-level appropriate• Able to recall information from a text• Work cooperatively with others• Compare the results of two different tests
Grade Level	Kindergarten
Materials	<ul style="list-style-type: none">• Butcher paper, cut into shape of space shuttle• Marker• Copy of <i>Astronaut Living in Space</i> by Kate Hayden• 8 sets of large winter gloves• 8 nuts/bolts• 8 plastic containers• 8 pennies
Anticipatory Set	<p>We begin with a large space shuttle made of butcher paper in our group area. The students will be asked to share everything they know about astronauts and space. All answers will be recorded on the space shuttle. Once we have recorded all of the known information, I will let students know that we are going to be reading about astronauts. After we finish the book, we will add any new information they have learned to our chart. Then they will have a chance to see what it is like to be an astronaut by trying to complete a space glove challenge.</p>
Input	<p>After completing the word web, I will read the book, <i>Astronaut Living in Space</i> to the class. Once we finish the book, I will ask if students learned any new information that they would like to add to our chart. I will recognize their valuable contributions to our word web on astronauts and space and let them know that as we learn more information this week they will have a chance to add it to the chart.</p> <p>Once all contributions have been recorded, I will explain to them that they are going to get a chance to see what it is like to be an astronaut. They will be partnered up and asked to complete a number of challenges. Each pair will have: a pair of gloves, a nut/bolt, a penny, and a plastic container with a lid. As I give them the challenges, I'll explain, one person will be wearing the gloves while the other person is not. Then we will switch roles and complete the challenges again, this time with the other person wearing the gloves. To make it easier for them to understand, I will have a volunteer come up to demonstrate how it will work. As</p>

they complete the task, they will be asked to complete the "How Was It?" chart to decide how difficult it was to complete the tasks. This too will be modeled as the instructions are given.

Modeling

I will model how the investigation will be conducted by asking a volunteer to come up to the front to role play as my partner. I will announce the first task, and my partner will complete it without the gloves and then I will complete it with the gloves. Then I will model using a sample sheet how I would mark the "How Was It?" page. We would go through this process 2-3 times until I feel all of the students understand.

Check for Understanding

After modeling what is to be done, I will ask the students to explain step-by-step what they are to do once they return to their seats with their partners. I will also ask them why they think they are having to wear gloves to complete the tasks to ensure they make the connection between the information from the text and the investigation.

Guided Practice

Students will work with their partners to:

- take the nut off of the bolt and then put it back on
- take the lid off of the plastic container, pick up the penny, put it in the container, and put the lid back on

After completing these tasks, they will be asked to complete the "How Was It?" form to rate their experience.

Closure

Once everyone has had a chance to complete the investigation with and without their "space gloves," we will meet back on the carpet to discuss the results. We will make a graph of their "How Was It?" results and decide which was easier - gloves or no gloves. Students will be able to make comments on how the investigation went for them.

Independent Practice

On the following day, students will be asked to write about astronauts in their journals. They will be asked to answer the questions:

- What does an astronaut do?
- Do you think they have an easy or hard job?
- What is one interesting fact about astronauts?

Enrichment

Students needing enrichment may be:

- given time to explore Nasa Kids' Club online to get more in-depth information
- asked to explain in their journal how other parts of the spacesuit might make an astronaut's job challenging

Remediation

Students needing remediation may:

- re-read a modified version of the text with a teacher or aide
- be paired with a higher level student during the investigation

Standard(s)

Display: Collapse All Expand All

▼ AZ- Arizona Academics Standards

▼ **Subject:** Social Studies (2006 Final)

▼ **Subject/ Grade/ Domain:** Kindergarten

▼ **Strand:** Strand 1: American History

▼ **Concept:** Concept 9: Postwar United States

Performance Objective: PO 1. Recognize that astronauts (e.g., John Glenn, Neil Armstrong, Sally Ride) are explorers of space.



▼ **Subject:** Language Arts

Subject/ Grade/ Domain: Reading

Grade: KINDERGARTEN

Strand: Strand 3: Comprehending Informational Text

Concept: Concept 1: Expository Text Identify, analyze, and apply knowledge of the purpose, structures, and elements of expository text.

Performance Objective PO 2: Restate facts from listening to expository text.

Performance Objective PO 3: Respond appropriately to questions based on facts in expository text, heard or read.

▼ **Subject:** Science

▼ **Subject/ Grade/ Domain:** KINDERGARTEN

▼ **Strand:** Strand 1: Inquiry Process

▼ **Concept:** Concept 2: Scientific Testing (Investigating and Modeling) Participate in planning and conducting investigations, and recording data.

Performance Objective PO 2 : Participate in guided investigations in life, physical, and earth and space sciences

Concept: Concept 4: Communication Communicate results of investigations.

Performance Objective PO 2 : Communicate with other groups to describe the results of an investigation.

Assessment/Rubrics

Students will be assessed based on observations made during the group time discussions. Students will also complete their own self-assessment at the end of the lesson. I will explain each level and ask students to give themselves a rating using their hands.

- 1 - I did not understand the information we talked about today.
- 2 - I understood a little bit about the lesson but need more help with it.
- 3 - I have a pretty good understanding about astronauts.
- 4 - I got it! I could teach a friend about astronauts.