



## A Lesson on Space Food by Ashley Labus

**Grade Level:** Grade 4

**Subject Area:** English Language Arts

**Lesson Length:** 2 hours

**Lesson Keywords:** [https://www.esa.int/esaKIDSen/SEMBQO6TLPG\\_LifeinSpace\\_0.html](https://www.esa.int/esaKIDSen/SEMBQO6TLPG_LifeinSpace_0.html)

**Lesson Description:** During this lesson, students will practice critical thinking skills, learn new vocabulary words, and comprehension of a grade level reading passage. Students will read the passage to themselves and then answer the following questions related to the reading material on Space Food. Afterwards, they will complete a discussion activity with other students in the class in reference to this excerpt about Space Food. Finally, the teacher will reread the passage out loud and discuss the related assignments.

### Common Core Standards Covered with This Lesson

CCSS.ELA-Literacy.RI.4.1: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

CCSS.ELA-Literacy.RI.4.2: Determine the main idea of a text and explain how it is supported by key details; summarize the text.

CCSS.ELA-Literacy.RI.4.4: Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

CCSS.ELA-Literacy.RF.4.4: Read with sufficient accuracy and fluency to support comprehension.

CCSS.ELA-Literacy.W.4.1b: Provide reasons that are supported by facts and details.

CCSS.ELA-Literacy.SL.4.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.

CCSS.ELA-Literacy.SL.4.1d: Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

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## Lesson Content: Book/Story/Reading Passage

**Instructions:** Please read the following reading passage as many times as needed (aloud and silent) before starting to go through other lesson pages. Understanding the content of this passage is very important since the lesson activities will be all about this content. Feel free to print the passage if needed.

### Space Food

by

**Content:** You really know how important a clean kitchen is if you live in the same small place for weeks. Everyone needs to have a clean kitchen so they are healthy. A dirty kitchen can make people sick. Astronauts are people who travel on space ships. They need to have a very clean home. They travel far from Earth. We need clean kitchens everywhere on earth and in space.

Astronauts have to solve two problems: how to get food and how to keep their spaceship clean. They need to solve them in order to stay alive. They are in a spaceship far from Earth, and they need to take care of everything themselves. They need to be sure they have what they need to live there, because the astronauts may be in space for weeks.

Here is how they solved the food problem. At first, the astronauts took tubes of food with them into space. They would squeeze a tube and eat semi-liquid food. It did not taste great, but since they did not need to take dishes or silverware with them, they had no dishes to wash.

Today's spaceships have a bigger menu. Astronauts can eat from bowls. In fact, they take cereal and other standard foods with them. The foods are packaged in special containers to keep them fresh. They use knives, forks, and spoons. One unusual item on their table is a pair of scissors. They use the scissors to open the food packages. They can eat right from the package.

They have a kitchen on the spaceship. Its oven can heat food to 170 degrees. The kitchen has water and sets of meals that come on trays. The astronauts choose their menu before they go into space. They take a lot of food with them.

The astronauts keep bread and fresh fruits and vegetables in a special food locker. Most flights take tortillas. They package the tortillas in an oxygen-free wrap so they stay safe.

How do they keep the kitchen clean? They do not have to worry about mice or other rodents. They make sure that there are no rodents before the ship leaves. But sometimes mice travel on the ship. Those mice are part of experiments. They live in cages.

How do astronauts keep their trays clean? That is another health problem the astronauts solve. They need to stay healthy in space. To carry a lot of water to wash trays would be a lot of extra weight. They pack wet wipes in plastic bags. They use them to clean trays. So, their kitchen is clean and they stay healthy.

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## Task 1: Vocabulary

**Instructions:** Please complete the following vocabulary activity by choosing the correct meaning of each word selected from the passage and use of each word correctly in a sentence.

**Q: 1 WordPhrase:** Unusual **WordPhraseTier:** 2

**Question:** What word best describes the meaning of the word "unusual" in the following sentence in the passage: "One unusual item on their table is a pair of scissors."

- A: similar
- B: common
- C: different
- D: good

**Question:** Which sentence uses the word "unusual" correctly?

- A: The horse was acting unusual because he was sick.
- B: It is unusual for people to go swimming when it is hot outside.
- C: It is unusual to eat dinner in the evening.
- D: My dog is unusual because it has one tail.

**Q: 2 WordPhrase:** Astronaut **WordPhraseTier:** 3

**Question:** This passage talks about Astronauts keeping their kitchen clean. What does the word "astronaut" mean?

- A: People that fix cars.
- B: People that travel to space.
- C: People that clean houses.
- D: People that help sick people feel better.

**Question:** Which sentence uses the word "astronaut" correctly?

- A: The astronaut is waiting for the spaceship to take off.
- B: Astronauts have gills and live underwater.
- C: My sister has a pet astronaut.
- D: An alien is the same thing as an astronaut.

**Q: 3 WordPhrase:** Rodent **WordPhraseTier:** 2

**Question:** The author in the story states that "They make sure that there are no rodents before the ship leaves." What does the word "rodent" mean?

- A: A mammal such as mice and squirrels.
- B: A reptile such as an alligator.
- C: A fish.
- D: An amphibian such as a frog.

**Question:** Which of the following sentences uses the word "rodent" correctly?

- A: Rodents live on the planet Mars.
- B: A rodent is an imaginary animal, so they aren't real.
- C: Rodents are as big as a house.
- D: A rodent scurried across the kitchen floor and scared my Grandma.

**Q: 4 WordPhrase:** Experiment **WordPhraseTier:** 3

**Question:** What does the word "experiment" mean in the following sentence from the passage: "But sometimes mice travel on the ship. Those mice are part of experiments."

- A: A playground.
- B: A scientific test.
- C: A popular toy.
- D: A type of food.

**Question:** Which of the following sentences uses the word "experiment" correctly?

- A: An experiment is used to figure something out that you already knew.
- B: Experiments require no thinking.
- C: The scientists formed an experiment to see how fast the ice cream would melt in the sun.
- D: When you don't find a solution to an experiment, just give up.

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## Task 2: Forum Discussion

**Instructions:** This discussion forum will have questions for students to respond. Read the posted questions, and respond to each. Students are responsible for posting one initial and two peer responses for each topic.

### 1 - Why is it important for Astronauts to keep their kitchen clean?

Astronauts don't have a lot of space in their space ship. Also, if their kitchen is dirty, it can cause the Astronauts to get sick.?

### 2 - Why do Astronauts use wet wipes to clean their food trays instead of water?

Carrying water would add a lot of unnecessary weight to the space ship.

### 3 - The Astronauts have spoons, forks, and knives on their ship to eat with. What do they need scissors for?

To cut open the packages of space food. They can eat right out of the package too!

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Task 3: Writing Activity

**Instructions:** What is the main idea of the story? Use examples from the story to support your answer. Finally, what are 3 things that you learned from reading this story that you didn't know before?

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