Name: _____ Date: _____

Why Space Has No Sounds

Circle group

Sound needs air to travel. A drum shakes the air. The shaking air goes to your ear. Then you hear a boom.

Space has almost no air. Nothing can carry the shaking. So space is silent. Two astronauts outside a spaceship could shout, but they could not hear each other.

Astronauts use radios. A radio sends messages in a different way. It does not need air. The astronauts talk through radios in their helmets.

Inside a spaceship, there is air. The astronauts can talk and laugh there, just like you.

Questions

1. What does sound need to travel?

_____

_____

2. Why is space silent?

_____

_____

3. How do astronauts talk outside?

_____

_____

4. Why can astronauts talk inside the spaceship?

_____

_____

5. What would happen if you hit a drum in space?

_____

_____

Words to know

silent: with no sound at all
astronaut: a person who travels in space
radio: a tool that sends and gets messages without wires

helmet: a hard hat that covers the head

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Why Space Has No Sounds

Triangle group

Sound needs air to travel. When a drum is hit, it shakes the air. The shaking air moves to your ear, and you hear a boom.

Space has almost no air. Nothing can carry the shaking from place to place. So space is silent. Two astronauts outside a spaceship could shout, but they would not hear each other.

Astronauts fix this with radios. A radio sends messages in a different way, and it does not need air. The astronauts talk through radios in their helmets.

Inside a spaceship, there is air to breathe. There the astronauts can talk, laugh, and sing, just like you do at home.

Questions

1. What does sound need in order to travel?

_____

_____

2. Why is space silent?

_____

_____

3. How do astronauts talk to each other outside?

_____

_____

4. Why can astronauts talk inside the spaceship?

_____

_____

5. What would happen if you hit a drum in space?

_____

_____

Words to know

silent: with no sound at all
astronaut: a person who travels in space
radio: a tool that sends and gets messages without wires
helmet: a hard hat that covers the head

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Why Space Has No Sounds

Square group

Sound needs air in order to travel. When someone strikes a drum, the drum shakes the air around it. That shaking air travels to your ear, and you hear a loud boom.

Space has almost no air at all. Nothing is there to carry the shaking from place to place, so space is completely silent. If two astronauts stood outside a spaceship and shouted, neither one would hear the other.

Astronauts solve this problem with radios. A radio sends messages in a different way, one that does not depend on air. The astronauts speak to each other through radios built into their helmets.

Inside a spaceship, there is air for the crew to breathe. There the astronauts can chat, laugh, and sing, just as you do at home.

Questions

1. What does sound need in order to travel?

_____

_____

2. Why is space completely silent?

_____

_____

3. How do astronauts speak to each other outside a spaceship?

_____

_____

4. Why are astronauts able to chat inside the spaceship?

_____

_____

5. What would happen if someone struck a drum in space?

_____

_____

Words to know

silent: with no sound at all
astronaut: a person who travels in space
radio: a tool that sends and gets messages without wires
helmet: a hard hat that covers the head

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: Why Space Has No Sounds

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: Why Space Has No Sounds

Easier · 90 words · Flesch-Kincaid grade 3

1. Air.
2. It has almost no air to carry the shaking.
3. They use radios in their helmets.
4. There is air inside the spaceship.
5. No one would hear it, because there is no air.

Triangle: Why Space Has No Sounds

This passage · 107 words · Flesch-Kincaid grade 3.3

1. Air.
2. It has almost no air to carry the shaking.
3. They use radios in their helmets.
4. There is air inside the spaceship.
5. No one would hear it, because there is no air to carry the sound.

Square: Why Space Has No Sounds

Harder · 128 words · Flesch-Kincaid grade 5.1

1. Air.
2. It has almost no air to carry the shaking from place to place.
3. They use radios built into their helmets.
4. There is air inside the spaceship.
5. No one would hear it, because there is no air to carry the sound.