

Planet “*Geo*”pardy

Overview:

“*Geo*”pardy is a fact game used to reinforce subject matter. It is similar to the “Jeopardy” game on television with one modification: the teacher asks a question and the students provide an answer. During “Planet ‘*Geo*’pardy,” students review facts about the nine planets in our solar system and their auroras (or lack of them).

Objectives:

The student will:

- review facts about the planets in our solar system;
- review facts about the aurora on Earth and other planets in our solar system; and
- discuss and solve problems with teammates.

Materials:

- Index cards—3x5 or larger (for questions and final “*Geo*”pardy round)
- “Planet ‘*Geo*’pardy Questions” (template can be cut out and glued to index cards)
- Stopwatch
- Pocket chart (to hold questions)
- Chalk and Chalkboard (to keep score)
- STUDENT WORKSHEET: “Planet ‘*Geo*’pardy”

Preparation:

1. Cut out “Planet ‘*Geo*’pardy” questions and glue them to index cards. Label index cards on one side with the value of the question. (10, 20, 30, 40, 50 and final “*Geo*”pardy). The easiest question for each category will be worth 10 points; the hardest worth 50.
2. On two or three of the cards, write the words “Daily Double.” These questions will be worth twice their value if answered correctly. (A Daily Double is a fun way for teams with low points to catch up.)
3. Hang pocket chart in classroom. Label five index cards with category names. Place these cards on top of the pocket chart. Place the remaining cards in the pockets under each category.

Planet “Geo”pardy

Activity Procedure:

1. Distribute STUDENT WORKSHEET: “Planet ‘Geo’pardy” and ask students to fill in the answers as they play the game. Ask students to turn in their worksheets at the end of the class.
2. Divide the class into teams of four or five students. Students may pick team names. The game host, or teacher, will write team names on the chalkboard and keep a running score for each team.
3. Each team will choose a spokesperson. The spokesperson will tell the game host what question the team has chosen by requesting the category and point value of the desired card. The spokesperson also will be responsible for giving the team’s final answer to each question.
4. Each team will have a time limit of 30 seconds to answer each question. Use a stopwatch or clock to keep time. Start as soon as the game host has completed the question. Call “time” after 30 seconds. For the final “Planet ‘Geo’pardy” round, each team will have one minute to answer the question.
5. Call on the spokesperson to give the team’s answer. If the team answers the question correctly, they receive points. If the team answers the question incorrectly, the team will not receive points (the points are not taken away from the team’s score). The game host will say the answer out loud.
6. The game host will begin with Team A. Team A’s spokesperson will state what category and how many points they would like for the first question. Example: Team A says, “We would like ‘Name That Planet’ for 40 points, please.” The game continues until the questions or time runs out.
7. For the final “Planet ‘Geo’pardy” round, the game host will discuss the strategy of placing a wager. Remind students that the wager will be placed before they hear the final “Planet ‘Geo’pardy” question. Explain that a team wager cannot exceed the team’s total number of points.
8. The spokesperson for each team will write the name of the team and the value of the team’s wager on the card. The game host will pick up all wagers.
9. Each spokesperson will receive a second blank index card. They will write their team name on top of the card. Then the game host will read the final “Planet ‘Geo’pardy” question. Each spokesperson will record the team’s answer on the index card. The game host will pick up the cards.
10. The game host will read the wager amount and the answer to the final “Geo”pardy question beginning with Team A. Record the final scores on the chalkboard.

Answers to the Student Worksheet:

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|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 1. <i>nine</i> | 5. <i>Earth, Jupiter, Saturn, Uranus and Neptune</i> |
| 2. <i>four of the following: Venus, Earth, Jupiter, Saturn, Uranus, and Neptune</i> | 6. <i>Jupiter</i> |
| 3. <i>four of the following: Jupiter, Earth, Saturn, Uranus, Neptune</i> | 7. <i>Jupiter and Saturn</i> |
| 4. <i>The planet must collide with particles in the solar wind, have a thick atmosphere of gases, and a strong magnetic field.</i> | 8. <i>Uranus and Neptune</i> |
| | 9. <i>Venus</i> |
| | 10. <i>two of the following: Jupiter, Saturn, Uranus, and Neptune</i> |

(Note: Answers to “Geo”pardy questions can be found on “Planet ‘Geo’pardy” cards)

Planet “Geo”pardy

Directions: Please answer the questions below as you play “Geo”pardy, as a class.

1. How many planets collide with the solar wind? _____

2. Name four planets in our solar system that have thick atmospheres.

3. Name four planets in our solar system that have strong magnetic fields.

4. What are the three characteristics needed for a planet to have an aurora oval?

5. What five planets in our solar system have the characteristics needed for an aurora oval?

6. Name the largest planet in our solar system. _____

7. Name the two planets that have aurora ovals similar to Earth’s.
_____ and _____

8. Name the two planets whose aurora appear as arcs of light near the planets’ equators.
_____ and _____

9. Name the planet whose aurora appears in a different spot each time, because the planet has no magnetic field. _____

10. Name at least two of the four planets that have a violet-blue aurora.
_____ and _____

Template

Aurora Ingredients:

How many planets collide with the solar wind?

Answer: nine

Aurora Ingredients:

What five planets in our solar system have the characteristics needed for an aurora oval?

Answer: Earth, Jupiter, Saturn, Uranus and Neptune

Aurora Ingredients:

Name four planets in our solar system that have thick atmospheres.

Answer: four of the following: Venus, Earth, Jupiter, Saturn, Uranus, and Neptune

Name that Planet:

Name the only planet in our solar system on which life is known to exist.

Answer: Earth

Aurora Ingredients:

Name four planets in our solar system that have strong magnetic fields.

Answer: four of the following: Venus, Earth, Jupiter, Saturn, Uranus, and Neptune

Name that Planet:

Name the planet surrounded by thin, wide rings that can be seen with a telescope from Earth.

Answer: Saturn

Aurora Ingredients:

What are the three characteristics needed for a planet to have an aurora oval?

Answer: The planet must collide with particles in the solar wind, have a thick atmosphere of gases, and a strong magnetic field.

Name that Planet:

Name the smallest planet in our solar system.

Answer: Pluto

Template

Name that Planet:

Name the planet in our solar system that is closest to the sun.

Answer: Mercury

Rhyming Riddles:

**I am a navy blue planet,
surrounded by deep blue clouds.
Strong winds blow upon me.
Can you say my name aloud?**

Answer: Neptune

Name that Planet:

Name the largest planet in our solar system.

Answer: Jupiter

Rhyming Riddles:

**What planet is covered by canyons,
volcanoes and sand of red,
without a drop of water
in its ancient river beds?**

Answer: Mars

Rhyming Riddles:

**The white clouds in my atmosphere
trap heat quite close to me,
making me the hottest planet.
Which planet can I be?**

Answer: Venus

Rhyming Riddles:

**I'm a little planet,
smaller than Earth's moon.
I have a peculiar orbit.
You'd best say my name soon!**

Answer: Pluto

Rhyming Riddles:

**Spinning on my side,
I'm a planet of pale blue.
My diameter's 4 times the size of
Earth's.
I know my name, do you?**

Answer: Uranus

Planets with Aurora:

**Name the two planets that have
aurora ovals similar to Earth's.**

Answer: Jupiter and Saturn

Template

Planets with Aurora:

Name the two planets whose aurora appears as arcs of light near the planet's equator.

Answer: Uranus and Neptune

Aurora Colors:

What determines the color of an aurora on a planet?

Answer: The gases in the planet's atmosphere

Planets with Aurora:

Name the planet that has a green and red aurora.

Answer: Earth

Aurora Colors:

On what side of a planet can aurora colors be seen?

Answer: The dark side

Planets with Aurora:

Name the planet whose aurora appears in a different spot each time, because the planet has no magnetic field.

Answer: Venus

Aurora Colors:

Are the aurora patches on Venus visible to the naked eye?

Answer: No

Planets with Aurora:

Name one of the planets that has a violet-blue aurora.

Answer: one of the following: Jupiter, Saturn, Uranus, Neptune

Aurora Colors:

What are the main gases in Earth's atmosphere?

Answer: Oxygen and Nitrogen

Aurora Colors:

True or False: The thickness, or density, of gases in a planet's atmosphere determines how bright a colorful aurora can glow.

Answer: True

FINAL "GEO" PARDY:

List the planets in our solar system in order, starting with the planet closest to the sun.

Answer: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto