

Summative Assessment #1 for Outer Space and Cyber Space

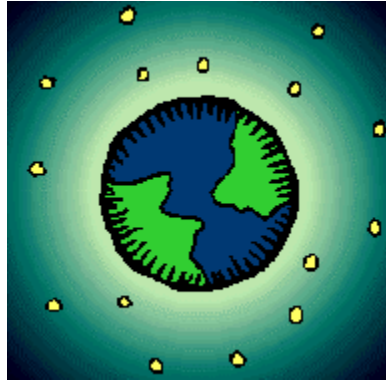


Table of Contents

Item	Page
Planets in Orbit, Summative Assessment #1 Instructions	page 2
Planets in Orbit, Summative Assessment #1	page 3 – 5
Planets in Orbit, Summative Assessment #1 Teacher Key	page 6 - 8

Planets in Orbit
Summative Assessment #1
Constructed Response

Duration: 45 minutes

Standards Assessed: SC.E.1.2.4.4.1, SC.E.1.2.5.4.1

Description of Assessment Activity: This summative assessment tool is used to evaluate the student's knowledge of the characteristics of the outer planets and of the gravitational pull that causes an orbit. Students will first be listing characteristics of the five outer planets and explaining orbits. Then students will write a short answer to a specific question concerning planet and orbit characteristics.

Teacher Directions: Download the assessment tool and duplicate for each student. Students should not have access to the wall data chart or their individual data charts for this activity. Students are to complete the assessment tool unassisted except where specific modifications are in place for individual students. This is a graded activity and should be recorded.

Student Directions: Read the directions carefully and complete each part of the assessment. Do not use the data wall chart or your own data chart. Spell as correctly as you can. Incorrectly spelled words will not cause the answer to be counted wrong, as long as I can tell without a doubt what you are trying to say. You have 45 minutes to complete the assessment. When finished, proofread your paper, and then turn it in.

Scoring Method and Criteria: A teacher's key has been provided with this assessment. There are 40 possible points. See the answer key for the point distribution. This assessment should be scored on a % correct basis.

Name _____

Date _____

Planets in Orbit

Summative Assessment #1

Write at least 5 characteristics of each planet listed. (SC.E.1.2.4.4.1)

Jupiter

- 1.
- 2.
- 3.
- 4.
- 5.

Saturn

- 1.
- 2.
- 3.
- 4.
- 5.

Uranus

- 1.
- 2.
- 3.
- 4.
- 5.

Neptune

- 1.
- 2.
- 3.
- 4.
- 5.

Pluto

- 1.
- 2.
- 3.
- 4.
- 5.

What keeps the planets in the same order as they move around the sun? (SC.E.1.2.5.4.1)

1. The force is _____.
2. The movement around the sun is called _____.
3. Tell how this force and movement work together.

Write the correct answer to each question. (SC.E.1.2.4.4.1, SC.E.1.2.5.4.1)

1. Which planet is furthest from the sun most of the time?
2. Which planet is largest?
3. Which planet has the most satellites (moons)?
4. Which planet is coldest?
5. Which two planets are very much alike? (They are close to the same size. Their temperature is very close. Their rotation period is very similar.)
6. Which planet takes longest to rotate around the sun?
7. Name **one** of the two planets that have a stronger known gravitational pull than the Earth?
8. Which planet has the most rings?
9. What force holds the planets in their orbit around the sun?
10. What is an orbit?
11. Earth's moon only revolves around Earth. Why?
12. What shape is an orbit?

Name _____

Date _____

Planets in Orbit

Summative Assessment #1

Teacher Key

Write at least 5 characteristics of each planet listed. (SC.E.1.2.4.4.1)

Neptune

Accept any 5 accurate answers and award 1 point for each.

Pluto

Accept any 5 accurate answers and award 1 point for each.

Jupiter

Accept any 5 accurate answers and award 1 point for each.

Saturn

Accept any 5 accurate answers and award 1 point for each.

Uranus

Accept any 5 accurate answers and award 1 point for each.

What keeps the planets in the same order as they move around the sun? (SC.E.1.2.5.4.1)

1. The force is gravity.
2. The movement around the sun is called orbit.
3. Tell how this force and movement work together.

Student's responses must contain an explanation of the sun's gravitational pull that holds each planet in its orbit.

This question is worth 3 points.

Write the correct answer to each question. (SC.E.1.2.4.4.1, SC.E.1.2.5.4.1)

1. Which planet is furthest from the sun most of the time?
Pluto
2. Which planet is largest?
Jupiter
3. Which planet has the most satellites (moons)?
Saturn
4. Which planet is coldest?
Pluto
5. Which two planets are very much alike? (They are close to the same size. Their temperature is very close. Their rotation period is very similar.)
Uranus and Neptune
6. Which planet takes longest to rotate around the sun?
Pluto
7. Name **one** of the two planets that have a stronger known gravitational pull than the Earth?
Jupiter or Neptune
8. Which planet has the most rings?
Saturn
9. What force holds the planets in their orbit around the sun?
gravity
10. What is an orbit?
An orbit is the path traveled by a body in space as they revolve around another body in space. Planets orbit the sun, and moons orbit the planets. Man-made satellites revolve around Earth in an orbit. Gravity is the force that holds a body in the orbit. * Students need not include all this information, but they should demonstrate an understanding of an orbit.
11. Earth's moon only revolves around Earth. Why?
The Earth's gravitational pull holds the moon in an orbit around the Earth.
12. What shape is an orbit?
Ellipse or oval