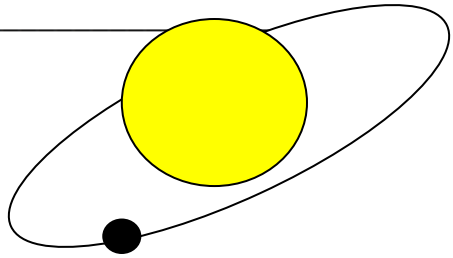
Name_____ Date_____



Learning about Planets - Mercury

Reading/discussion

Mercury is the closest planet to the sun. Because its orbit around the sun is an **ellipse** (see the diagram), its distance from the sun varies from about 28 million miles to about 43 million miles. Now that Pluto is no longer considered a planet, Mercury is the smallest planet in our solar system – about 3030 miles in diameter. In comparison, Earth has a diameter of about 7926 miles.

Mercury is named after the Roman messenger of the gods and the god of travel, commerce and thievery who wore wings on his sandals. It probably got its name because it moves so quickly through the sky. A **Mercurial** year is only 88 days – this is the time it takes for Mercury to go around the sun once - but, because it does not rotate as quickly as Earth, a day lasts 59 Earth days.

Like Venus and Earth, Mercury is a **terrestrial** planet. It consists of an iron core with a thin rocky layer made up mostly of **silicon** and oxygen. Its surface is pitted with craters which show us that Mercury has been hit many times by **asteroids** and other space objects. One of the largest craters on Mercury's surface is the **Caloris Basin** which is about 800 miles in diameter. Unlike Earth, Mercury apparently has no moon and its magnetic field is only about 1 percent as strong as Earth's.

Because Mercury is so close to the Sun, you would expect it to be a very hot planet. You would be right! The daytime temperature on Mercury can reach 698 degrees Fahrenheit. However, the night time temperature, or the temperature on the side turned away from the Sun, can drop to minus 238 degrees!

Name_____ Date_____

Activities:

Quiz.

- Print the statements on the following page onto separate cards and write the value of the question on the back of the card.
- Divide the children into small groups and provide each group with a buzzer, bell or similar device.
- Attach the cards facedown on a wall or whiteboard.
- Let the groups take turns to choose a card according to its value.
- Turn the card over so that the question is visible.
- The group which buzzers (or rings) first gets the first opportunity to answer the question, after which it is open to all.
- Keep a record of the values earned.
- An incorrect answer results in a minus value.
- Give the winning group a small prize, such as a box of M & M's which can be shared among the members of the group.

Name_____ Date_____

Questions

1. Which is the smallest planet in our solar system? 200 points
2. What shape is Mercury's orbit? 200 points
3. Who is Mercury named after? 200 points
4. What is the probable reason that Mercury was given its name? 200 points
5. What type of planet is Mercury? 200 points
6. How many moons does Mercury have? 200 points
7. How do we know that Mercury has been hit by asteroids? 200 points
8. What does Mercury's surface consist of? 300 points
9. What is one of the largest craters on Mercury's surface? 300 points
10. How long is a Mercurial year? 300 points
11. How is a year measured? 300 points
12. How long is a Mercurial day in Earth days? 300 points
13. How is a day measured? 300 points
14. How strong is Mercury's magnetic field compared to Earth's? 300 points
15. How big is the largest crater on Mercury's surface? 500 points
16. What is the closest distance Mercury comes to the Sun? 500 points
17. What is the furthest distance Mercury is from the Sun? 500 points
18. What is Mercury's diameter? 500 points
19. What is Earth's diameter? 500 points
20. What is the highest daytime temperature on Mercury? 500 points
21. What is the lowest night time temperature on Mercury? 500 points

Name_____ Date_____

Answer Sheet

1. Mercury.
2. An ellipse.
3. The Roman messenger of the gods. The god of travel, commerce and thievery.
4. Because of its speed.
5. Terrestrial.
6. None.
7. Because it is pitted with craters.
8. Mostly silicon and oxygen.
9. Caloris Basin.
10. 88 days.
11. By the time it takes to go around the Sun once.
12. 59 days.
13. By the time it takes for the planet to complete one rotation.
14. 1 percent.
15. 800 miles.
16. 28 million miles.
17. 43 million miles.
18. 3030 miles.
19. 7926 miles.
20. 698 degrees Fahrenheit
21. Minus 238 degrees Fahrenheit.