Name: _____ Date: _____

Venus Is Hotter Than Mercury

Circle group

Venus is the second planet from the sun. Mercury is closer to the sun. But Venus is hotter. Why?

Venus has thick clouds. The clouds let sunlight in. Then they keep the heat in, like a warm quilt. The heat cannot get out. So Venus is hot all day and all night.

Mercury has almost no air to keep heat. Its sunny side is hot. Its dark side is very cold.

Venus looks bright in the sky. Its clouds bounce sunlight back. We see that light. Venus can look like a bright star.

Questions

1. Which planet is closer to the sun, Venus or Mercury?

_____

_____

2. What do the thick clouds on Venus do with the heat?

_____

_____

3. What is the dark side of Mercury like?

_____

_____

4. Why does Venus look like a bright star?

_____

_____

5. Why is Mercury not as hot as Venus?

_____

_____

Words to know

planet: a big round world that travels around a star
quilt: a thick, warm cover for a bed
bounce: to hit something and spring back

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: _____

Venus Is Hotter Than Mercury

Triangle group

Venus is the second planet from the sun. Mercury is closer to the sun than Venus is. But Venus is the hotter planet. Why is that?

Venus has a thick blanket of clouds. The clouds let sunlight come in. Then they hold the heat in, like a warm quilt on a bed. The heat cannot get out. So Venus stays very hot, day and night.

Mercury has almost no air to hold heat. Its sunny side gets hot, but its dark side gets very cold.

Venus is bright in the sky, too. Its clouds bounce a lot of sunlight back into space. Some of that light reaches us, so Venus can shine like a bright star near sunrise or sunset.

Questions

1. Which planet is closer to the sun, Venus or Mercury?

_____

_____

2. What do the thick clouds on Venus do with the heat?

_____

_____

3. What is the dark side of Mercury like?

_____

_____

4. Why can Venus shine like a bright star?

_____

_____

5. Why is Mercury not as hot as Venus, even though it is closer to the sun?

_____

_____

Words to know

planet: a big round world that travels around a star
blanket: a covering that keeps heat in
quilt: a thick, warm cover for a bed
bounce: to hit something and spring back

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: _____

Venus Is Hotter Than Mercury

Square group

Venus is the second planet from the sun, and Mercury orbits even closer to it. Surprisingly, though, Venus is the hotter of the two planets. Why would that be?

Venus is wrapped in a thick blanket of clouds. The clouds allow sunlight to pass through, but then they hold the heat in, much like a warm quilt on a bed. The heat cannot escape, so Venus stays extremely hot, both day and night.

Mercury has almost no air to hold heat. Its sunny side becomes scorching, while its dark side turns bitterly cold.

Venus is also remarkably bright in our sky. Its clouds bounce a great deal of sunlight back into space, and some of that light reaches us. Near sunrise or sunset, Venus can shine like a bright star.

Questions

1. Which planet is closer to the sun, Venus or Mercury?

_____

_____

2. What happens to the heat once it passes through the thick clouds on Venus?

_____

_____

3. What happens on the dark side of Mercury?

_____

_____

4. Why can Venus shine like a bright star near sunrise or sunset?

_____

_____

5. Why is Mercury cooler than Venus even though it is nearer to the sun?

_____

_____

Words to know

planet: a big round world that travels around a star
blanket: a covering that keeps heat in
quilt: a thick, warm cover for a bed
bounce: to hit something and spring back

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: Venus Is Hotter Than Mercury

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

Circle: Venus Is Hotter Than Mercury

Easier · 93 words · Flesch-Kincaid grade 1

1. Mercury is closer to the sun.
2. They keep the heat in.
3. It is very cold.
4. Its clouds bounce sunlight back to us.
5. Mercury has almost no air to keep heat, but Venus has clouds that trap it.

Triangle: Venus Is Hotter Than Mercury

This passage · 120 words · Flesch-Kincaid grade 2.3

1. Mercury is closer to the sun.
2. They hold the heat in.
3. It gets very cold.
4. Its clouds bounce sunlight back, and some of it reaches us.
5. Mercury has almost no air to hold heat, but Venus has clouds that trap it.

Square: Venus Is Hotter Than Mercury

Harder · 130 words · Flesch-Kincaid grade 4.8

1. Mercury is closer to the sun than Venus is.
2. The clouds hold it in so it cannot escape.
3. It turns bitterly cold.
4. Its clouds bounce sunlight back into space, and some of it reaches us.
5. Mercury has almost no air to hold heat, while the clouds of Venus trap it.