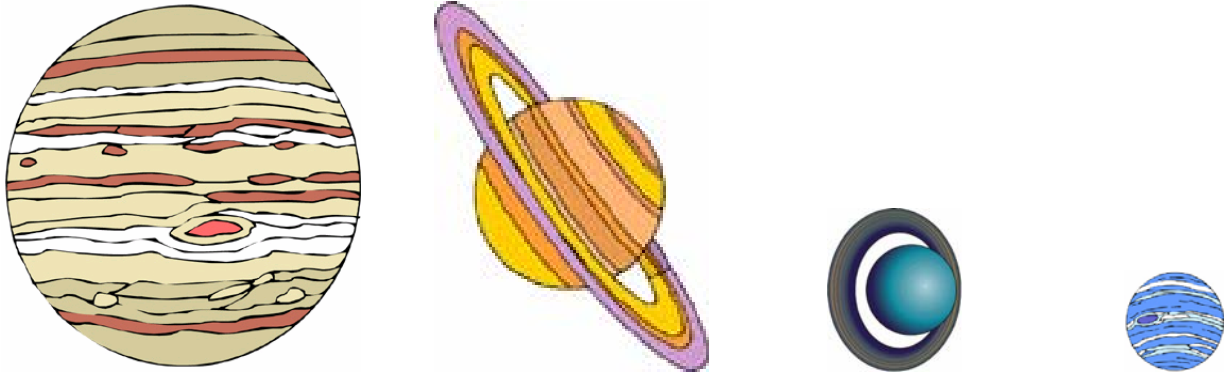


Name _____ Date _____

THE OUTER PLANETS



The outer planets are the planets that are the farthest from the sun. There are four outer planets. Their names are Jupiter, Saturn, Uranus, and Neptune. Jupiter, Saturn, Uranus, and Neptune are called "gas giants" because they are mostly made of gases and are very big.

The gas giants are Saturn, Jupiter, Uranus and Neptune. These four planets are similar to each other in some ways. The gas giants are all very different from the inner planets. One way that the gas giants are different from the inner planets is that the gas giants all have rings. Saturn has the most colorful and largest number of rings. Each gas giant has many moons. Jupiter has sixty-three moons. Saturn has at least fifty-six moons. Uranus has twenty-seven moons, and Neptune has thirteen moons. None of the inner planets have rings, and only Earth and Mars have moons. Earth has one moon and Mars has two moons.

Name _____ Date _____

ANSWER THE QUESTIONS ABOUT *THE OUTER PLANETS*

1. What are the four planets that are **farthest** from the sun named?

2. Why are Jupiter, Saturn, Uranus, and Neptune called **gas giants**?

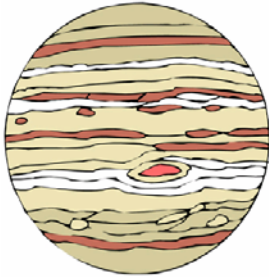
3. Which planets are bigger: inner planets or outer planets?

4. What are **two ways** that the gas giants are different from the inner planets?

5. Which **outer planet** has the **most** moons?

Name _____ Date _____

JUPITER



Jupiter is the fifth planet from the sun. It is the largest planet in our solar system. Jupiter is called a gas giant because it is mostly made of gas. Jupiter has a big red spot on its surface. This red spot is called the Great Red Spot. The Great Red Spot is a storm, like a giant hurricane, that has lasted for over 300 years. Jupiter's Great Red Spot is about twice as big as Earth!

Jupiter has rings and many moons. Some of its moons are in its rings. Jupiter has sixty-three moons. One of Jupiter's moons is named Io (Eye-OH). Io has volcanoes on it. The volcanoes still erupt!

Jupiter spins around very fast. It takes Jupiter only ten hours to spin around once. One day on Jupiter is ten hours long. However, a year on Jupiter is very long. It takes Jupiter twelve "Earth years" to orbit the sun once. This means that the Earth orbits the sun twelve times in the time it takes Jupiter to go around the sun once!

Name _____ Date _____

ANSWER THE QUESTIONS ABOUT *JUPITER*

1. Jupiter is the _____ planet from the sun.

2. Why is Jupiter called a **gas giant**?

3. What is the name of the big storm on Jupiter?

4. How long has the storm on Jupiter lasted?

5. How big is Jupiter's Great Red Spot?

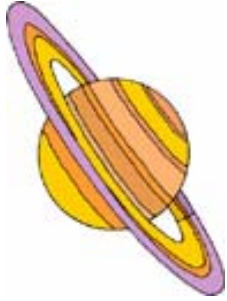
6. What are **two things** that Jupiter has?

7. How many moons does Jupiter have?

8. How long does it take Jupiter to orbit the sun once?

Name _____ Date _____

SATURN



Saturn is the sixth planet from the sun. It is the second largest planet in our solar system. It is a gas giant.

Saturn has rings. The rings are made of pieces of rock and ice. Some of these pieces are very small, and some are bigger than a house. Saturn's rings have pretty colors because the sun's light **reflects**, or bounces, off them and makes rainbow colors.

Saturn has at least fifty-six moons. It is hard to tell exactly how many moons Saturn has. This is because the chunks of ice inside Saturn's rings are moons. Saturn has so many moons that they have been grouped into categories.

Saturn spins around very fast. One day on Saturn is only ten hours long, just like one day on Jupiter. A year on Saturn is very long. It takes Saturn twenty-nine and one-half "Earth years" to orbit the sun once!

Name _____ Date _____

ANSWER THE QUESTIONS ABOUT SATURN

1. Saturn is the _____ planet from the sun.

2. How big is Saturn?

3. What are Saturn's rings made of?

4. What is **one way** that Saturn and Jupiter are **alike**?

5. Saturn has at least _____ moons.

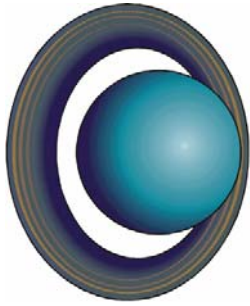
6. Why don't we know how many moons Saturn has?

7. How many hours in a day on Saturn?

8. How long is one year on Saturn?

Name _____ Date _____

URANUS



Uranus is the seventh planet from the sun. One day on Uranus is short. It is only seventeen hours long. One year on Uranus is very long. It takes Uranus eighty-four “Earth years” to orbit the sun once.

Uranus has twenty-seven known moons. The moons of other planets are named after characters from mythology. The moons of Uranus are named after characters from plays by Shakespeare and Alexander Pope.

Uranus has thin rings. Its rings are different from those of Saturn and Jupiter. They are not as colorful as Saturn’s rings. Uranus’s rings are not easy see because they are very thin.

Uranus is made of gas and ice. The ice on Uranus is not made of water like ice on Earth. It is made of a blue-green, frozen gas called methane.

Uranus has a north and a south pole, but they are in its middle instead of on its top and bottom.

Name _____ Date _____

ANSWER THE QUESTIONS ABOUT *URANUS*

1. Uranus is the _____ planet from the sun.

2. How many hours in one Uranus day?

3. How long does it take Uranus to orbit the sun once?

4. How many moons does Uranus have?

5. What is special about the names of Uranus's moons?

6. What is Uranus made of?

7. Uranus's North and South poles are in its _____.

_____.

Name _____ Date _____

NEPTUNE



Neptune is the eighth planet from the sun. One day on Neptune is nineteen hours long. One year on Neptune is very, very long. It takes Neptune 165 “Earth years” to orbit the sun once.

Like Jupiter, Neptune has a spot. Jupiter’s spot is a storm, but Neptune’s spot might be a hole in its atmosphere. The spot appeared, then disappeared. Now there is another spot on Neptune.

Neptune is like Jupiter because it has a big spot. Neptune is also like Uranus. Neptune is like Uranus because its atmosphere is mostly made of methane gas. An **atmosphere** is the gases that are around a planet. This methane gas makes Neptune look blue, as does Uranus.

Neptune has bands of thin white clouds in its sky that look like stripes. The cloud patterns change as Neptune spins around.

Neptune has at least thirteen moons. The biggest one is named Triton.

Name _____ Date _____

ANSWER THE QUESTIONS ABOUT *NEPTUNE*

1. Neptune is the _____ planet from the sun.
2. How many hours in one Neptune day? _____
3. How long does it take Neptune to orbit the sun once?

4. How are Neptune's and Jupiter's spots different?

5. How is Neptune like Uranus?

6. Why do Neptune's cloud patterns change?

7. What is the name of Neptune's **biggest** moon?

Name _____ Date _____

Answers:

Outer Planets

1. Jupiter, Saturn, Uranus, Neptune.
2. They are mostly made of gases and are very big.
3. Outer planets are bigger (giants).
4. They all have rings and many moons.
5. Jupiter

Jupiter

1. fifth
2. It is mostly made of gases and is very big.
3. the Great Red Spot
4. over 300 years
5. about twice as big as Earth
6. moons and rings
7. sixty-three moons
8. twelve Earth years

Saturn

1. sixth
2. It is the second largest planet in the solar system.
3. pieces of rocks and ice
4. They are both gas giants (or they both have rings).
5. at least 56 moons
6. ten hours long
7. 29 and ½ Earth years

Uranus

1. seventh
2. seventeen hours long
3. eighty-four Earth years
4. twenty-seven
5. They are named after characters from plays instead of mythology.
6. gas and ice
7. middle

Neptune

1. eighth
2. nineteen hours long
3. 165 Earth years long
4. Jupiter's spot is a storm; Neptune's spot might be a hole in its atmosphere.
5. Its atmosphere is mostly made of methane gas.
6. The patterns change as Neptune spins.
7. Triton

Name _____ Date _____

Vocabulary/Activate Prior Knowledge:

1. Write the following words on chart paper: atmosphere, gas, hurricane, rings, reflect, storm, pattern, North Pole, South Pole, solid, liquid, gas. Pronounce each word. Ask students to repeat each word after you say it. Ask them to clap and count how many syllables they hear in each word. Write the number of syllables each word has beside it on the chart paper.
2. Ask students to tell you what they already know about each word. Write student responses under each word.
3. “Picture Smart”: Ask students how they would draw a picture to show what each word means. Draw a picture on chart paper, based on their responses, for each word. Ask them what important details should be labeled in each picture. Label the important details of each picture.

Mini-Lesson: Suffixes –er and -est

1. Ask three children of varying heights to come up to the front of the room.
2. Ask them to arrange themselves in order from shortest to tallest.
3. Give the shortest student a card with the word *tall* printed on it. Ask the students who should have the cards with *taller* and *tallest* printed on them.
4. Explain that when we want to compare things, we add the suffixes “-er” and “-est” to the base word. Write *big* on the board inside of a circle. Draw two more circles for *bigger* and *biggest*, but do not write the words inside of them. Ask the students which circle should be labeled “bigger” and which should be labeled “biggest”. Write the words in the circles as the students answer.
5. Ask students to work in groups of two or three, and to brainstorm as many words as they can think of that can be changed to –er and –est forms to compare things.
6. Have students write the words on word cards, and display on a word wall.
7. Apply the lesson to the Outer Planets lessons by asking “Which gas giant is the biggest?” etc.

Name _____ Date _____

Shared Reading Generic Lesson Plan for Reading Sheets:

1. Choose a mini-lesson to teach before reading the sheet for the day together. Teach the mini-lesson.
2. Read the sheet aloud with the students.
3. Ask students to find examples of what was covered in the mini-lesson in the reading sheet.
4. Ask students to find vocabulary words in the reading sheet.
5. Discuss the reading sheet together as a group. Ask students to draw and label two details that they thought were important from each sheet on a separate sheet of paper or on the back of the reading sheet. Ask students to share their drawings and details with the whole group.

Guided Reading Generic Lesson Plan:

1. After engaging in shared reading, ask students to complete the questions on the reading sheet. The teacher may pull small flexible groups of students needing help with question/answer strategies and/or decoding, while the others work to answer the questions.
2. If all students are doing well, the teacher will circulate and assist as needed during guided reading time.

Independent Reading:

Obtain appropriate-level books about space and the solar system from the media center or other sources, and encourage students to choose books from the reading center that interest them, and to read during independent reading time.

Teacher may circulate and assist to answer questions, help students decode a word, or figure out the meaning of a word.