





## Leveled Reading and Writing Cards Grade 3/4

## Space and the Solar System.

These reading passages are leveled using the SMOG and Flesch Kincaid Grade Level. As with all things this will be dependent on the background, prior knowledge and reading level of your students. Some will find it easier some will find it more difficult. So they are designed for you to use your professional judgement ☺



### The Solar System: Mercury



Can you read the passage then answer the questions.



Mercury is the smallest planet in the Solar System. It looks a little like our moon, but Mercury is bigger. It has craters on it as well. It moves around the Sun very quickly. It takes 88 days to go around the Sun, but it turns very slowly. This means one day on Mercury is longer than its year!! One day on Mercury is the same as 176 Earth days! It is the closest planet to the Sun, but not the hottest. It is one of the four rocky planets in the Solar System.

#### Can you answer the questions

Is Mercury bigger or smaller than the Moon?

How long does Mercury take to go around the Sun?

How many Earth days is one day on Mercury?

What is the closest planet to the Sun?



#### **GR** 3

### **The Solar System: Venus** Read the passage then answer the questions.





This is Venus and it is the hottest planet in our Solar System. It is almost the same size as Earth. It spins backwards, this means the sun comes up in the West and goes down in the East, not like Earth. It is one of the four rocky planets like Mars and Mercury. Which means you could walk on it. It has lots of very thick clouds which make it so hot it can melt metal. So you really don't want to go there! It is the second planet from the Sun.

#### Can you answer the questions

Where does the Sun come up on Venus?

What number planet from the Sun is Venus?

Why is Venus so hot?

What number planet from the Sun is Venus?



### The Solar System: Earth





This is Earth, this is where we live. We think it is big, but next to other things in space it really is quite small. It takes 24 hours to rotate, or one day. This day is not 24 hours though, it is 23 hours, 56 minutes and 4 seconds! It takes one year for Earth to go around the Sun. The surface of Earth has lots of water, in fact more water than land! A long time ago Earth used to have a twin planet called Theia, but it crashed into Earth and made our moon. Earth is the third planet from the Sun.

#### Can you answer the questions

How long is one day on Earth?

Is there more land or water on the surface of Earth?

What was the name of the twin planet?

What number planet is Earth from the Sun?



### The Solar System: Mars

#### Read the passage then answer the questions.





This is Mars, we call it the red planet. This is because the soil is red. It does not have air like Earth so we need a spacesuit if we want to go for a walk there. It is a strange planet. The surface is warm but just a little way above it can be very cold! Mars has ice at the top, but there is no running water on Mars. We have robots exploring there and maybe one day people will go as well. If you jump up you will jump three times higher than on Earth, This is because gravity is 3 times less than on Earth

#### Can you answer the questions

Why do we call it the red planet?

Where is the ice on Mars?

What is exploring on Mars at the moment?

Why can you jump high on Mars?

#### **GR** 3

### The Solar System: Jupiter Read the passage then answer the questions.





This is Jupiter. This is the biggest planet in the Solar System. It is so big 1300 Earths could fit into it. The big red spot you can see is a storm. It is so big you can fit three Earths into that storm. Jupiter is made of gas so we can not walk on it. We have one moon but Jupiter has 63 moons! If you are lucky you can see this on a clear night with your eyes, just like Venus and Saturn. One day is only 10 hours long on Jupiter. Jupiter takes 12 years to go around the sun

#### Can you answer the questions

How many Earths could fit into Jupiter?

What is the big red spot on Jupiter?

What is Jupiter made of?

How many moons does Jupiter have?



# The Solar System: Saturn



Read the passage then answer the questions.



This is Saturn, it is the second largest planet in the Solar System. It is made of gas like Jupiter. It has 7 rings around it that make it look beautiful, these are made mostly of ice. Saturn has 53 moons, that is 52 more than Earth! If you could find a big glass of water and put Saturn in it, it would float! Good luck trying this though! It takes 29 years for Saturn to go around the sun. It is the 6<sup>th</sup> planet from the Sun. You can see this in the night sky with your eyes, but it looks **Can you answer the questions** like a star.

How many rings does Saturn have?

How long does it take for Saturn to go around the Sun?

Can you see this planet with your eyes?

What are the rings of Saturn mostly made of?



### The Solar System: Uranus



Read the passage then answer the questions.



This is Uranus. It is a big blue gas planet. It is the coldest planet in the Solar System, though Neptune is also very cold. Like Saturn it has rings around it. These nine rings are darker and harder to see. It does not spin like the other planets, it spins on its side. We don't know why this happens but people think maybe another planet hit it a long time ago and made it spin on its side. It takes 84 years to go around the Sun! It is the 7<sup>th</sup> planet from the Sun.

#### Can you answer the questions

What is Uranus made of?

How does Uranus spin?

How long does it take Uranus to go around the Sun?

What number planet is Uranus from the Sun?



## The Solar System: Neptune

#### Read the passage then answer the questions.

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This is Neptune, it is the last planet in the Solar System. It has rings like Uranus and Saturn and also has 14 moons. It is made of gas like the other gas giants. It is very cold and is the coldest on average of all the planets. It is also the windiest planet in the Solar System. Winds can be 1300 miles per hour. It is a beautiful blue colour but you cant see this with your eyes as it is so far away. It takes 165 years to go around the Sun.

#### Can you answer the questions

What number planet is Neptune from the Sun?

How many moons does Neptune have?

How fast can the wind be on Neptune?

How many years does Neptune take to go around the Sun?





#### GR 3

### The Solar System: The Sun

Read the passage then answer the questions.





This is the Sun. It is a star. In fact it is called a yellow dwarf star. It is made of lots and lots of burning gas. There are many different types and colours of stars. The colour helps us see how hot they are. Blue stars are the hottest. The light from the Sun takes 8 minutes and 20 seconds to reach Earth, it is so far away! The Sun gives us heat and energy so we can live on Earth. The Sun is an average star, but it can still fit nearly 1 million (1,000,000) Earths

inside it!

**Can you answer the questions** What is the Sun?

What is the Sun made of?

How long does it take light from the Sun to reach Earth?

What colour stars are the hottest?



# **GR 4** The Solar System: The Moon



Read the passage then answer the questions.



This is the Moon. People think a very long time ago another planet hit Earth. This planet was called Theia and when it hit Earth it sent lots of rocks into space. These rocks came together to go around Earth (orbit) and turn into our Moon. It is a rocky moon, and you can walk on it. It is not easy to get there though, and only 12 people have walked on it. The Moon is quite heavy and it can pull the water in our oceans. This is why we have tides and why the water moves to and from our beaches.

#### Can you answer the questions

What is the Moon made of?

How many people have walked on the Moon?

Why does the Moon pull the water in our oceans?

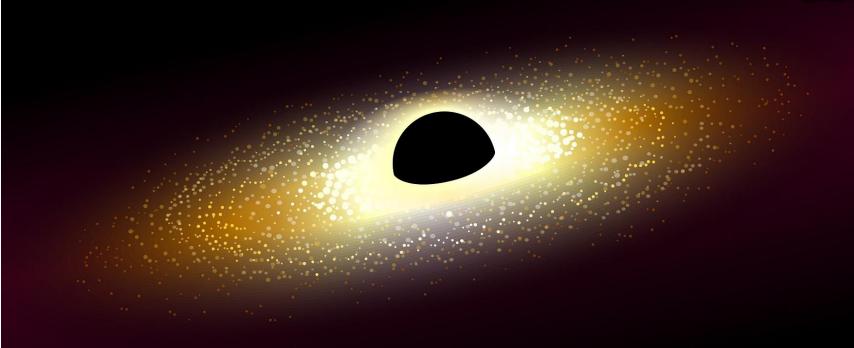
What was the name of the planet that hit Earth to make the Moon?



GR 3/4 The Solar System: Black Holes







This is a black hole and it is a scary place. It is made when a really big star explodes and is so heavy that it pulls gas, dust, planets and even stars inside it. It can even pull light into it. They are called black holes as we can not see inside them. We can not see them with our eyes as the light inside can not get out. There is a really big black hole in the centre of our galaxy. We are still learning about them but we do know they are scary places. Luckily there are no black holes near Earth!!

#### Can you answer the questions

Can we see black holes with our eyes?

Are there any black holes near Earth?

Why do we call them black holes?

What can black holes pull inside them?



200,000,000,000 stars in the Milky Way

### The Solar System: Galaxies



Read the passage then answer the questions.



This is a galaxy. It is made of lots and lots of stars. We live in a galaxy called the Milky Way and it is very big. People think the Milky Way has around 200 billion(!) stars. If you cant think of a number that big look at the side of the page. In the middle of most galaxies is a very big black hole. The Sun and Earth go around the Milky Way but it takes 230 million years! If you have clear skies you can sometimes see the "arms" of the Milky Way in the sky!

#### Can you answer the questions

What is a galaxy made of?

What is the name of our galaxy?

What is in the middle of galaxies?

How many years does the Sun take to go around the galaxy?



The Solar System: Comets

Read the passage then answer the questions.

**GR** 3



This is a comet. It is made of ice, dust and rock. The comets we can see all go around the Sun. When they get closer to the Sun they heat up. This gives them a very long tail. Sometimes we can see this tail in the sky with our eyes. They move very fast. They do hit planets sometimes, but there are no comets coming to Earth that we can see! One of the most famous is called Halley's Comet, and we can see it every 75 years from Earth.

#### Can you answer the questions

What are comets made of?

What gives them a long tail?

What is the name of the comet that we can see every 75 years?

Can comets hit planets?



# The Super Solar System.





Read the information and then answer the questions.

This is the Solar System, it has eight planets and one star. The name of that star is The Sun. It is the closest star to us. All the planets go around The Sun. Mercury takes just 90 days and Neptune takes 164 years!! Do you know how long Earth takes? There are four planets made of rock and four made of gas. We can only live on one of these planets and that is the beautiful blue and green one we call Earth.

#### Can you answer the questions?

How many planets are there?

What is the name of our closest star?

How long does Mercury take to go around The Sun?

Two of the planets are in the wrong place, do you know which ones?

