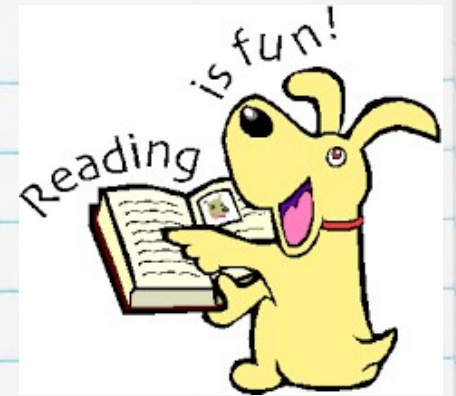


WELCOME TO MISS MCKINNEY'S ZOOM CLASSROOM



11.2.21

GOOD MORNING CLASS 4



Your 8.45am task is...

*Read from where you are up to in your
reading book and complete the daily
challenge...*

ZOOM BEHAVIOUR CHARTER

- Mic on mute unless Miss McKinney unmutes
- Use hand up icon to ask questions
- Listen to your teacher
- Listen to your friends
- Remember your best learning behaviour and our class charter
- Do you best 😊

TODAY'S LEARNING OBJECTIVES...

- *Develop scientific enquiry questions that match a series of statements about space*
- *Match possible scientific enquiry approaches to specific scientific enquiry questions*

BREAKOUT ROOMS

The Knowledge Organiser — what else do you already know?

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EARTH AND SPACE

Time
The Earth to spin once on its axis.
(When the Earth faces the sun it is daylight and when it faces away from the sun it is night. It makes the sun appear to travel across the sky.)
24 hours
The moon to orbit the Earth
(A lunar month - see Phases of the Moon)
28 days
The Earth to orbit the sun
(Every 4 years there is a leap year due to the extra quarter - an extra day in February)
365 days 1 day
The Earth's tilt on its axis is what causes the 4 seasons. Sometimes it points towards the sun and other times it points away from the sun.

The Sun
A star at the centre of our solar system.
15 million degrees hot at its centre.
It is 13 million times bigger than earth.

The Solar Eclipse
A solar eclipse is when the moon passes between the sun and the earth so the moon blocks the sunlight.
The Sun is incredibly bright. It is not safe to look directly at the sun, even when wearing sunglasses!

Phases of the Moon
New Moon, Waxing Crescent, First Quarter, Waxing Gibbous, Full Moon, Waning Gibbous, Last Quarter, Waning Crescent

GEOCENTRIC - People used to believe that the earth was the centre of the solar system and that the sun, and all the other planets, orbited it.
HELIOCENTRIC - Over hundreds of years, scientists began to understand that the sun was at the centre of the universe. They realised that all the planets actually orbited the sun not the earth.

Neil Armstrong
(The first man to step on the moon - 1969)

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Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune
(Pluto was reclassified as a dwarf planet in 2006)

Waning means the moon looks like it is getting smaller.
Waxing means the moon looks like it is getting larger. How much of the moon we see, depends on how much sunlight is hitting it. The moon reflects this sunlight.

VOCABULARY FOR THIS LESSON

Earth

Planets

Sun

solar system

Moon

celestial body

sphere/spherical

rotate/rotation, spin, orbit,

night & day,

opinion/fact

support/refute

<https://www.youtube.com/watch?v=5xldz4EuV2U>

Stargazing Live

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Prof Cox's Statements

The Earth and planets move around the Sun.

The Earth's Moon appears to change shape throughout the month.

The Earth spins on its axis.

The Sun is at the centre of our solar system.

Stars don't move around the Earth.

Day and night are the result of the Earth spinning on its axis

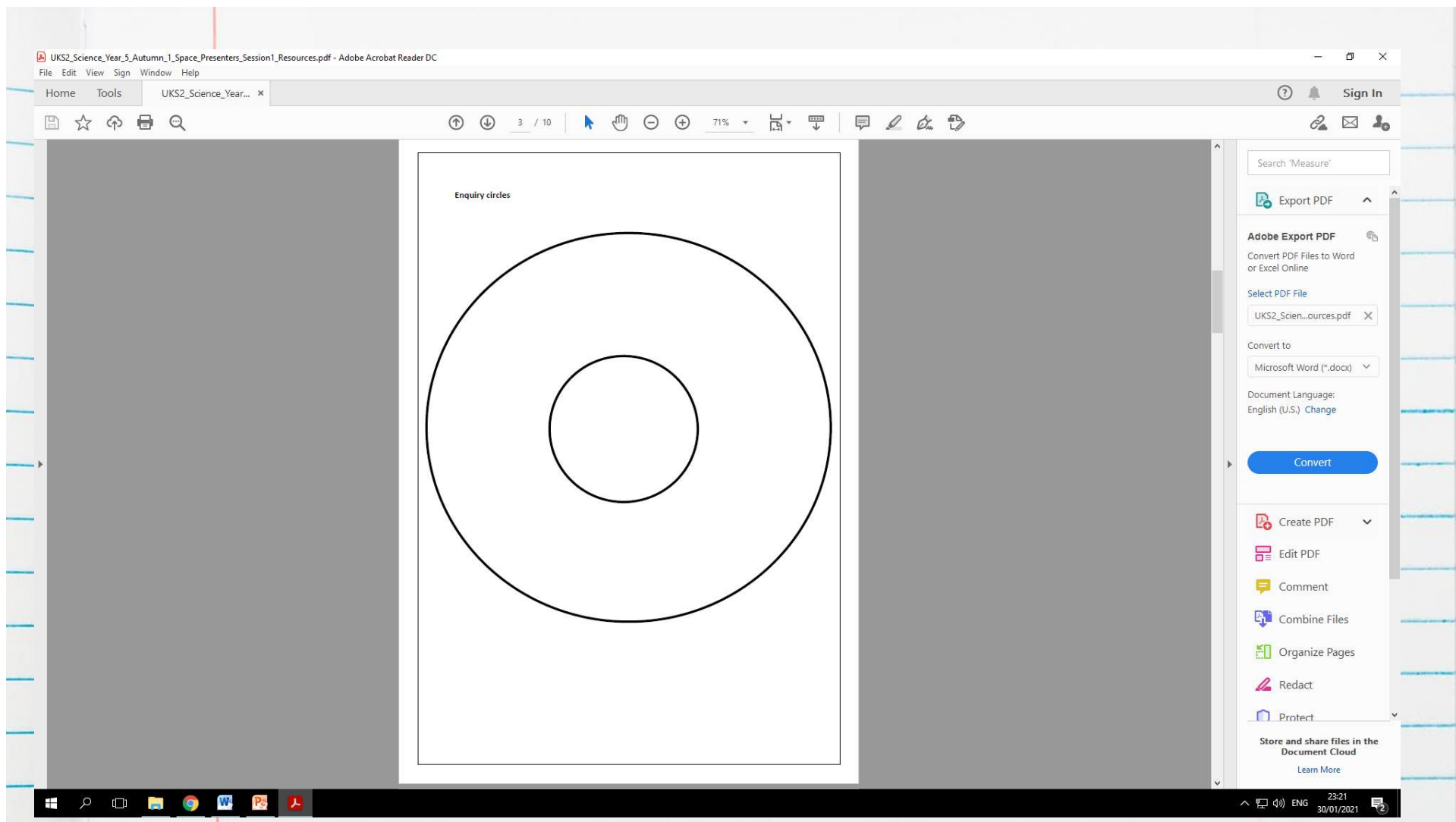
There are eight planets in our solar system, each with unique features.

The stars in the night sky are still there during the day.

All of the planets in our solar system have their own distinct characteristics.

The sun is not a planet.

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Believer/doubter game

In mixed ability groups

Get children to look at the first of the statements and their 'known facts'. Ask them to come up with justifications as to why the statement is likely to be true (believers).

Now get children to challenge the statement (doubters), using logical arguments and any evidence that might go against the statement offering possible alternative views.

In pairs, children can then decide (and justify) their own view.

Example

Statement: *The Earth's Moon appears to change shape throughout the month.*

Child's opinion: *agree - it appears to change shape because the light from the sun hitting it is not always fully visible on Earth*

Initial question to investigate (during activities): *What causes the moon to appear to change shape?*

Repeat with the other statements.

Based on P4C resource: <http://p4c.com/articles/believing-and-doubting-game>

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Developing useful scientific questions

Initial question (what is our overarching question?)	Improved version (is there something more specific that we are looking to do?)	Best version (what are the details of what and how you want to explore an overarching question?)
What evidence can we find that the Earth spins?	What can we observe and measure that demonstrates the spinning of the Earth?	How can observing and measuring shadows help to demonstrate the spinning of the Earth?
How do we know there are 8 planets in our solar system, and what they are like?	What equipment/evidence has been used to identify and describe the 8 planets in our solar system?	What evidence do telescopes and probes give us that proves the existence of the 8 planets and shows us what they are like?
How do we know that it is different times of day and night across the Earth at one moment?	What might demonstrate the differing times of day and night across the Earth at one moment?	How can we use toy figures at different latitudes on a globe help to demonstrate night and day across the Earth?
How can we demonstrate that the Earth and planets orbit the sun?	What role does gravity have in the argument for a heliocentric solar system?	Can the science of gravitational force help to demonstrate the heliocentric nature of our solar system?
How do we know the Earth and planets are spherical?	What secondary sources of information provide evidence that the Earth and planets are spherical?	How do photographs help our understanding of the shape of planets?
What tells us that the moon travels around the Earth approximately every 4 weeks?	How do changes in the apparent shape of the moon support the idea that it moves around the Earth?	Can we model the phases of the moon to demonstrate its movement around the Earth?

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THUMBS UP: HAVE WE ACHIEVED OUR OBJECTIVES?

** Develop scientific enquiry questions that match a series of statements about space*

** Match possible scientific enquiry approaches to specific scientific enquiry questions*

Do you know where to find your maths lesson @ 11am?

Please send your science to me on Class DOJO – there will be lots of points up for grabs today!

Last messages - break time for everyone next 😊

GOODBYE
— FOR NOW