Year 5 Foundation Subject Home Learning Pack

Week Commencing Monday 11\textsuperscript{th} May 2020

In this Learning Pack you will find five different activities for this week covering different foundation subjects. These activities can be completed in any order. We hope you enjoy them

1. History – Southern Lights
2. Computing – Computing giants wordsearch (including answers)
3. French – Describe the planets
4. Science – Earth movement quiz
5. R.E. – Jewish symbols
History

So far, we have learnt about the Northern Lights – where and how they occur, what they look like and the characteristics of the countries they can be spotted from. But did you know there is also an Aurora Australis? These are known as the Southern Lights.

Your task:

Using the information below, or your own research, can you describe the similarities and differences between the Northern and Southern Lights?

Things to consider could be:

- Where are they?
- What do they look like?
- When can you see them?
- How do they occur?
- Which would you prefer to see and why?
The Southern Lights Aurora Australis

What?

Otherwise known as the Aurora Australis, the Southern Lights are bright, dancing streams of purple, green, red and yellow in the night sky. The Northern Hemisphere has Aurora Borealis or the Northern Lights. The southern lights can be seen in Tasmania, New Zealand, Antarctica, Georgia Island and sometimes Victoria.

Where?

The Southern Lights can be viewed in, Queenstown, Christchurch, Lake Tekapo, Stewart Island and other places on New Zealand’s South Island.

- Mount Wellington in Tasmania and other south facing areas on the Island.
- Victoria in coastal areas that are facing the Bass Strait.
- Antarctica and South Georgia Island.

It must be dark to see them, so it is not possible with light pollution in the sky. People sometimes travel out of cities to view them. Being as far south as possible, with a broad horizon and up high will give you a better chance of seeing an aurora. Using a camera to take photos of the aurora will show up more of nature’s most exceptional light show.

When?

The Southern Lights are best seen between autumn and winter, from about March through to September. They are unpredictable, but some weather maps from NOAA (National Oceanic and Atmospheric Administration) and information from Nasa’s ACE (Advanced Composition Explorer) spacecraft are helpful.

Why?

The Southern Lights are caused by the sun’s charged particles, called solar flares or solar wind, colliding with the gas atoms in the Earth’s atmosphere. This causes the gases to emit light. The colour of the aurora depends on which molecule is struck and how high it is above the Earth. Auroras happen in ovals around the North and South magnetic poles.
Computing

Please complete this wordsearch including some key names in the computing industry. Perhaps you could look up anyone you don’t recognise on the internet?

Computing Giants

Steve Jobs  Bill Gates  Tim Berners-Lee  Mark Zuckerberg  Jack Dorsey

Kevin Systrom  Jimmy Wales  Apple  Windows  world wide web

Facebook  Twitter  Instagram  Wikipedia
This week, we would like you to practice your French speaking skills with someone else in your household. We are continuing our space theme and below, you will find the French names of the planets in our solar system.
Using the list of adjectives below and your knowledge of these planets already, can you create some sentences in French to describe the solar system? You could even think of your own adjectives and research the translations on the internet. Some examples have been provided to help you.

Examples:

Mars et rouge = Mars is red

Jupiter et grand = Jupiter is big
A symbol is a mark or character which is used to represent an object, function or process. Symbols appear in every religion – for example, Christians have the cross, Muslims have the crescent moon and star and Hindus have Om.

Judaism is no different. Here are some important Jewish symbols:

**Star of David**

The Star of David, known in Hebrew as the Shield of David or Magen David. Its shape is that of a hexagram, the compound of two equilateral triangles. The hexagram has been in use as a symbol of Judaism since the 17th century.

**Menorah**

Here is a menorah which is used during a special Jewish festival called Hanukkah.
Your task:

You can either choose to design your own hamsa on the template below, or create your own symbols to represent important things in your lives – these could include family, friends, school, pets, faith or hobbies.

This is a hamsa. This symbol is an open hand, often featuring an eye through the middle of the palm. It is a protective sign and believed to bring happiness and good fortune.
Science

Earth rotates on an axis. During the winter, the North Pole is tilted away from the Sun’s rays. As Earth travels around the Sun, the tilt of Earth changes. By June, the North Pole is tilted towards the Sun and the days become very long. Earth takes a year to orbit the Sun and it is the tilt which creates the seasons.

Your task:

This week you will be becoming quiz masters! You should research the movement of the Earth and other planets in relation to the sun, and create your own quiz to test your family members on!

Examples of questions you could ask are:

How much bigger is the sun than the moon? 4 times, 40 times or 400 times?
Which is biggest, the sun, Earth or moon?
How long does it take the Earth to make one turn on its axis?

You should aim to create 10 questions – maybe we can do a class quiz when we come back to school, using all of your questions!

Here is some information to help you if you don’t have access to the internet:

The Earth moves in two different ways in space. The Earth rotates and revolves.

Revolution (orbit) 365.25 days
Rotation (spin) 24 hours
Earth’s Rotation

There is an imaginary line through the center of the Earth called the **axis**.

The axis extends from north to south.

The axis is at a tilt of 23.5 degrees.

It takes the Earth 24 hours, or 1 day, to complete one rotation on its axis.

When the side of the Earth that is facing the Sun is experiencing **daytime**, the side of the Earth that is facing away from the Sun is experiencing **night-time**.
The Sun rotates on its axis.

The Earth’s rotation makes the Sun appear to move across the sky, but the Earth is actually rotating.

**Earth’s Revolution**

- The Earth revolves around the Sun.
- This takes approximately 365 days, or 1 year.
- The path the Earth takes around the sun is called Earth’s ‘orbit’.
- The Earth’s orbit is in an elliptical shape.
Seasons in the Northern Hemisphere

The seasons are created through the combination of the Earth’s *revolution* and the *tilt of the axis*.

When the northern hemisphere of the Earth is tilted away from the Sun, people in these regions are experiencing **winter**.

When the northern hemisphere of the Earth is tilted toward the Sun, people in these regions are experiencing **summer**.

Seasons in the Southern Hemisphere

The seasons are created through the combination of the Earth’s *revolution* and the *tilt of the axis*.

When the southern hemisphere of the Earth is tilted away from the Sun, people in these regions are experiencing **winter**.

When the southern hemisphere of the Earth is tilted toward the Sun, people in these regions are experiencing **summer**.