

YEAR 7 INDEPENDENT LEARNING PROJECT

This project is to complete at home.

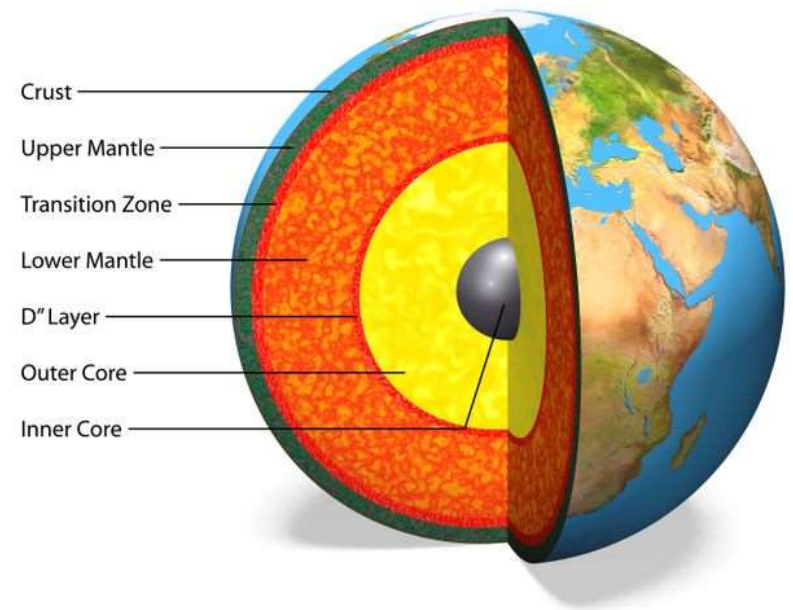


THE EARTH'S STRUCTURE

- Explain how the earth was formed and the structure it has today.
 - Include a labelled diagram of how the earth is structured.

<https://www.youtube.com/watch?v=Cn8Rdujngws>

<https://www.bbc.co.uk/bitesize/guides/zysbgk7/revision/1>



TYPES OF ROCKS

- Plan an exciting talk about sedimentary, igneous and metamorphic rocks. Your target audience is year 6.
- You need to include:
 - How they are formed
 - Their properties
 - Examples and uses

<https://www.bbc.co.uk/bitesize/guides/zgb9kqt/revision/1>

<https://www.youtube.com/watch?v=TbHB7xUjMIk>



THE ROCK CYCLE

- The rock cycle shows how rocks change, and how their materials are recycled over millions of years
- Using the website below, create a poster about the rock cycle.
- You need to include a diagram and what happens at each stage

<https://www.bbc.co.uk/bitesize/guides/zwd2mp3/revision/5>

<https://www.youtube.com/watch?v=kXV7D89S9sc>



CERAMICS



- Imagine you work for a ceramics company.
- Write a newspaper article explaining what ceramics are and why they are useful. You will need to include the properties of ceramics.

<https://www.bbc.co.uk/bitesize/guides/ztxnsbk/revision/1>



THE NIGHT SKY AND OUR SOLAR SYSTEM

- Imagine you are an astronaut exploring space.
- Write a speech describing your journey around space and the things you have seen.
- Create a poster to accompany your speech, including diagrams of the planets that make up our solar system.
- You will need to include details about:
 - The planets (including the order they orbit the sun)
 - Stars
 - Our solar system, and planets beyond our solar system
 - The universe
 - How distance is measured in space.

<https://www.bbc.co.uk/bitesize/guides/z8wx6sg/revision/1>

<https://www.youtube.com/watch?v=libKVRa01L8&t=23s>



THE EARTH

- Centuries ago, people believed that everything (including the sun, stars and other planets) revolved around the Earth. This was called the geocentric model. One famous astronomer who believed this was **Claudius Ptolemy** who lived in ancient Greece.
- We now have the heliocentric model – the planets orbit the sun.
- Write a letter to Claudius explaining what we know about the orbiting Earth and use this to explain why we have day and night and different seasons. Compare the two models in your letter.

<https://www.bbc.co.uk/bitesize/guides/z8wx6sg/revision/4>

<https://www.bbc.co.uk/bitesize/guides/z8wx6sg/revision/5>

<https://www.bbc.co.uk/teach/class-clips-video/physics-ks3-ks4-a-scale-model-of-the-solar-system/znrc2sg>

<https://www.youtube.com/watch?v=l64YwN11wr0>



PHASES OF THE MOON

- Draw a diagram showing the different phases of the moon, including their names.
- Explain why the moon has different phases.

<http://www.primaryhomeworkhelp.co.uk/moon/phases.html>

<https://www.youtube.com/watch?v=f4ZHdzl6ZWg>



BIG Write

A new Earth...?

Astronomers discovered a planet called Pegasi b, or Bellerophon around a Sun-like star in 1995. Here is some information about Pegasi b and Earth.

How would life there be different to life on Earth?

Could there be life on Pegasi b?

Write a guide to the new planet, contrasting it with Earth and other planets in the Solar System.

| | 51 Pegasi b | Earth |
|--------------------------------------|-------------|-------|
| Distance from the star (million km) | 7.7 | 150 |
| Time to orbit the Sun (days) | 4 | 365 |
| Time to spin once on its axis (days) | 4 | 1 |
| Tilt of the axis (degrees) | 79 | 23.5 |

Key Words

crust, mantle, core, mineral, sedimentary rock, igneous rock, metamorphic rock, porous, weathering, sediment, erosion, transport, deposition, strata, igneous, durable, magma, lava, metamorphic, rock cycle, uplift, ceramic, artificial satellite, orbit, Earth, Moon, natural satellite, planet, Sun, Solar System, star, galaxy, Milky Way, exoplanet, Universe, light year, asteroid, dwarf planet, axis, day, night, year, season, constellation, phases of the Moon, models, geocentric model, heliocentric model