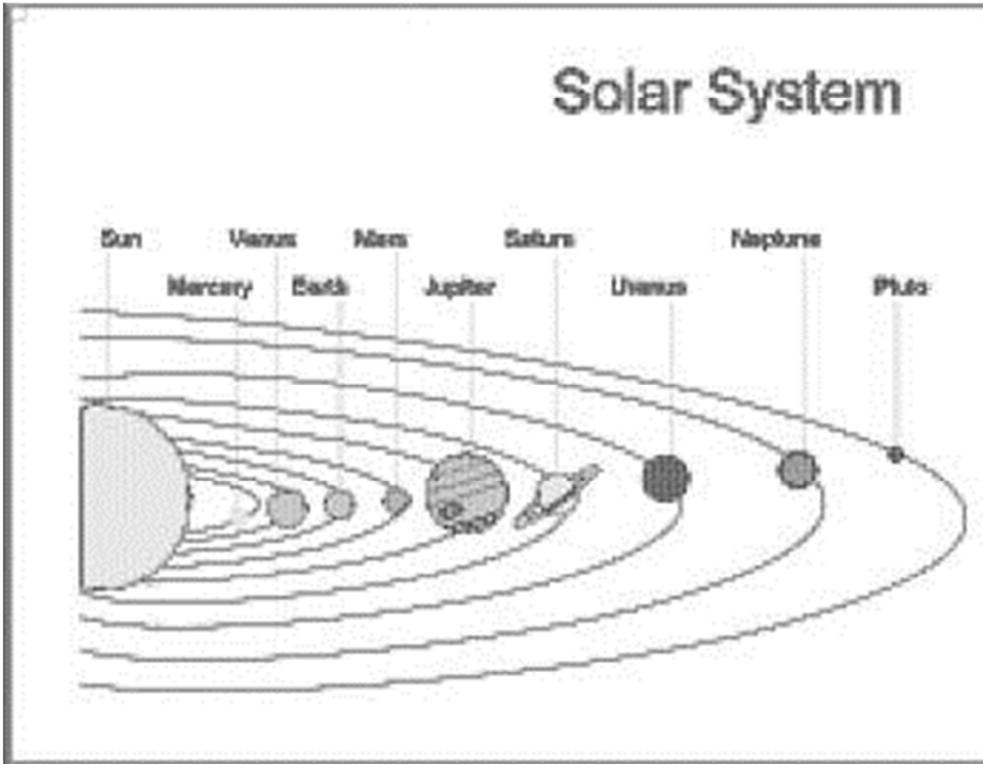


Planet Earth

Worksheet 1 Teacher's notes

1. Why the Earth is called the Blue Planet? *70% water, looks blue from space* Do you know all the planets in the Solar system ? Sketch the Solar system:



2. Complete the information chart about the earth:

DIAMETER	7,926 miles (12,756 km)
MASS	5.98×10^{24} kg
DENSITY	5520 kg/m^3
DISTANCE FROM THE SUN	93 million miles (149,600,000 km)
THE SPEED OF ROTATION AROUND THE SUN	30 km/sec
NO OF SATELITES	One, the Moon

3. What is a hemisphere? *a half* How many hemispheres can the earth be divided to? *two: northern/southern or eastern-western* Which hemisphere do you live in?
4. Explain the terms : *perihelion- when the earth is the closest to the sun* and *aphelion- when the earth is the farthest from the sun.*
5. Explain what orbital eccentricity is. *the earth's orbit is not circular but elliptical*

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6. What is the earth's atmosphere and what does it compose of? *The Earth's atmosphere is a thin layer of gases that surrounds the Earth. It is composed of 78% nitrogen, 21% oxygen, 0.9% argon, 0.03% carbon dioxide, and trace amounts of other gases.*
7. What is AU (astronomical unit)? *the distance of the earth from the sun*
8. The earth has four layers, prepare a short presentation about each layer.

The Earth is made up of four distinct layers:

The inner core is in the centre and is the hottest part of the Earth. It is solid and made up of iron and nickel with temperatures of up to 5,500°C. With its immense heat energy, the inner core is like the engine room of the Earth.

The outer core is the layer surrounding the inner core. It is a liquid layer, also made up of iron and nickel. It is still extremely hot, with temperatures similar to the inner core.

The mantle is the widest section of the Earth. It has a thickness of approximately 2,900 km. The mantle is made up of semi-molten rock called magma. In the upper parts of the mantle the rock is hard, but lower down the rock is soft and beginning to melt.

The crust is the outer layer of the earth. It is a thin layer between 0-60 km thick. The crust is the solid rock layer upon which we live.

9. There are two types of the outer layer of the earth, what are they?

*There are two different types of crust: **continental crust**, which carries land, and **oceanic crust**, which carries water.*

10. What are tectonic plates? How many are there ? What natural phenomenon are they connected with ? *The Earth is generally considered to have 15 major [tectonic plates](#), seven or eight of which are primary plates, and the others are smaller, secondary plates. The primary plates are the African Plate, the Antarctic Plate, the Eurasian Plate, the Indo-Australian Plate, the North American Plate, the Pacific Plate and the South American Plate, with the Nazca Plate sometimes considered a primary plate instead of a secondary plate. The secondary plates are the Arabian Plate, the Caribbean Plate, the Cocos Plate, the Indian Plate, the Juan de Fuca Plate, the Philippine Sea Plate, the Scotia Plate and sometimes the Nazca Plate. Connected with earthquakes.*

suggested sources:

<http://www.wisegeek.org/how-many-tectonic-plates-are-there.htm>

http://www.bbc.co.uk/schools/gcsebitesize/geography/natural_hazards/tectonic_plates_rev3.shtml

<http://space-facts.com/earth/>

<http://solarsystem.nasa.gov/planets/profile.cfm?Object=Earth>

<http://www.enchantedlearning.com/subjects/astronomy/planets/earth/>