Berkswell CE Primary School
Year 6 – Geography – World Maps

Vocabulary	
biome	a large region of Earth that has a certain **climate** and certain types of **vegetation** and animals
climate zone	sections of the Earth that are divided according to the climate. There are three main **climate zones**; polar, **temperate** and **tropical**.
compass points	any of the main points of a compass: north, south, east, west, north-east, north-west, south-east, south-west
continent	a very large area of land that consists of many **countries**.
country	an area of land that is controlled by its own government.
desert	a large area of land where there is almost no water, rain, trees, or plants
equator	an imaginary line around the middle of the Earth at an equal distance from the North Pole and the South Pole.
hemisphere	half of the Earth (Northern or Southern)
latitude	imaginary horizontal lines that circle the Earth parallel to the equator
longitude	imaginary vertical lines that stretch from the North Pole to the South Pole
ocean	one of the five very large areas of salt water on the Earth's surface
Prime Meridian	also called the Greenwich meridian, an imaginary line that runs from the North Pole to the South Pole and passes through Greenwich, England
population	all the people who live in a **country** or area
temperate	a place which is never extremely hot or extremely cold
time zone	24 different time zones across the world
tropical	parts of the world that lie between the imaginary lines; **Tropic** of Cancer (23.5° north of the Equator) and the **Tropic** of Capricorn (23.5° south of the Equator). The **tropics** have a humid **climate**, where the weather is hot and damp.
tundra	a flat area of land where the top layer is frozen. There is hardly any **vegetation**.
vegetation	plants, trees and flowers found in a particular area

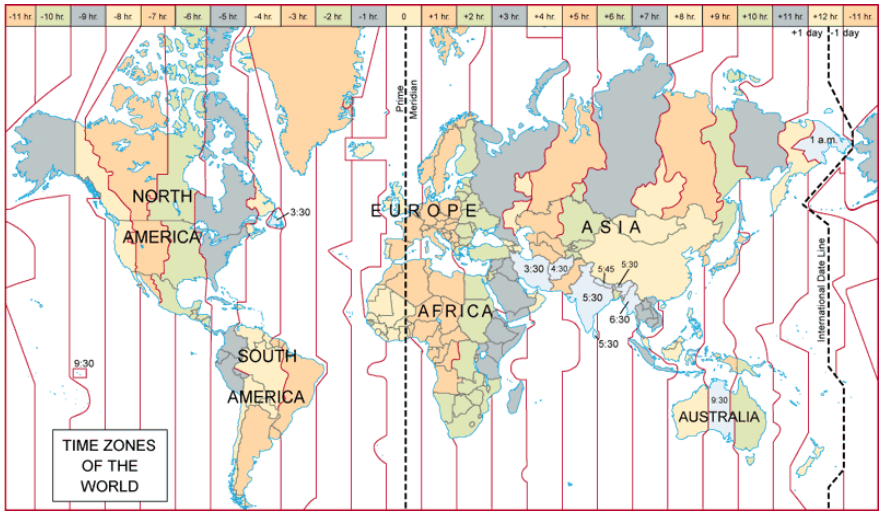
World Map



- The seven continents
- The five oceans
- The Equator
- The Tropic of Cancer and The Tropic of Capricorn
- The lines of latitude and longitude
- The Prime Meridian

What will I know by the end of the unit	
Prior Learning	• The seven continents and five oceans • There are different climate zones (e.g. polar regions) • Human and physical geographical features in different countries, cities and towns
Geographical Skills and Fieldwork	• How to use an atlas, maps and globes to locate countries in different locations across the earth. • Understand that the earth is split into the northern and southern hemisphere and the key differences between these – population and amount of water. • The eight points of a compass in order to describe the locations of countries in relation to one another. • Compare climate zones and discuss how these are dependent on their location on Earth. • How to locate countries and major cities using coordinates of longitude and latitude. • Describe the location of contrasting places (including the polar regions) using key vocabulary, their human and physical geographical features, their climate (and how their location on Earth affects this), and describe their similarities and differences. • How the Greenwich Meridian affects time zones across the world.

World Time Zones

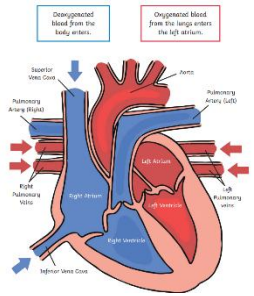


Berkswell CE Primary School
Year 6 – Science – Animals, including Humans (The Heart and Lungs)

Vocabulary	
arteries	a tube in your body that carries **oxygenated** blood from your **heart** to the rest of your body
blood vessels	the narrow tubes through which your **blood** is **transported** around the body. **Arteries**, **veins** and **capillaries** are **blood vessels**.
carbon dioxide	a gas produced by animals and people breathing out
circulatory system	the system responsible for circulating blood through the body, that supplies **nutrients** and **oxygen** to the body and removes waste products such as **carbon dioxide**.
cycle	a series of events that are repeated in the same order.
deoxygenated	blood that does not contain **oxygen**
diet	the kinds of food that a person/animal eats.
drugs	a medicine or other substance which has a physiological effect when taken into the body.
exercise	activity requiring physical effort to improve health and fitness.
heart	the **organ** in your chest that **pumps** the blood around your body which is made up of chambers known as **atriums** and **ventricles**.
lifestyle	the way in each a person lives
lungs	two **organs** inside your chest which fill with air when you breathe in. They **oxygenate** the blood and remove **carbon dioxide** from it.
muscles	a bundle of fibrous tissue in a human or animal body.
nutrients	substances that help plants and animals to grow
organ	a part of your body that has a particular purpose
oxygen	a colourless gas that plants and animals need to survive
oxygenated	blood that contains **oxygen**
pulse rate	the number of times the **heart** beats per minute as **blood** is **pumped** through the body. How fast or slow your **pulse** is, depends on the activity you are doing.
respiration	process of respiring; breathing ; inhaling and exhaling air
veins	a tube in your body that carries **deoxygenated** blood to your **heart** from the rest of your body

The Heart

- The heart is composed of four chambers: the right atrium, the right ventricle, the left atrium and the left ventricle.
- How often your heart pumps is called your pulse.



Prior Learning

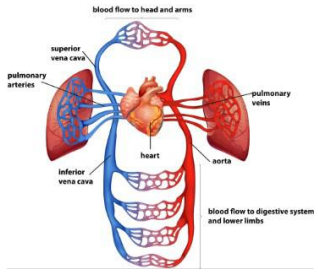
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Y2)
- Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. (Y3)
- Describe the simple functions of the basic parts of the digestive system in humans. (Y4)
- Identify the different types of teeth in humans and their simple functions. (Y4)

What will I know by the end of the unit

What is the circulatory system?	• The circulatory system is made up of the **heart**, the **lungs** and the **blood vessels.** • Arteries carry oxygenated blood from the heart to the rest of the body, including the lungs • Veins carry deoxygenated blood from the body back to the heart. • Nutrients, water and oxygen are transported in the blood to the muscles and other parts of the body. • Carbon dioxide is carried in the blood back to the heart then to the lungs to be removed from the body.
Choices that can harm the **circulatory system**	• Some choices, such as smoking and drinking alcohol can be harmful to our health. • Tobacco can cause short-term effects such as shortness of breath, difficulty sleeping and loss of taste and long-term effects such as lung disease, cancer and death. • Alcohol can cause short-term effects such as addiction and loss of control and long-term effects such as **organ** damage, cancer and death. • Diet choices can impact on the way our bodies function.
Why is exercise so important?	Exercise can: • tone our muscles and reduce fat • increase fitness • make you feel physically and mentally healthier • strengthens the **heart** • improves **lung** function • improves skin

The Circulatory System

1. The right **atrium** collects the **deoxygenated** blood from the body, **via** the **vena cava**. It sends the blood to the right **ventricle**.
2. The right **ventricle pumps** the **deoxygenated** blood to the **lungs**. Here the blood picks up **oxygen** and disposes of **carbon dioxide**.
3. The **lungs** send **oxygenated** blood back to the left **atrium** which pumps it to the left **ventricle.**
4. The left **ventricle** pumps the blood to the rest of the body, **via** the **aorta**.



Berkswell CE Primary School
Year 6 – Science – Electricity

Vocabulary	
ammeter	measures the **current** in a **circuit**
appliances	a **device** or machine in your home that you use. **Appliances** are often **electrical.**
battery	small **devices** that provide the **powe**r for **electrical items** such as torches
bulb	the glass part of an **electric** lamp, which gives out light when **electricity** passes through it.
buzzer	an electrical **device** that is used to make a buzzing sound
cell	a synonym for **battery**
circuit	a route which an **electric current** can flow around
component	the parts that something is made of
conductor	a substance that heat or **electricity** can pass through or along
current	current a flow of **electricity** through a **wire** or **circuit**
device	an object that has been invented for a particular purpose
electricity	a form of **energy** that can be carried by **wires**
energy	the **power** from **sources** such as **electricity** that makes machines work or provides heat
fuel	a substance such as coal, oil, or petrol that is burned to provide heat or **power**
insulator	a **non-conductor** of electricity or heat
mains	mains where the supply of water, **electricity**, or gas enters a building
motor	a **device** that uses **electricity** or fuel to produce movement
power	Power is **energy**, especially **electricity**, that is obtained in large quantities from a fuel **source** and used to operate lights, heating and machinery
resistance	a **force** which slows down a moving object or vehicle
resistor	a part of an electrical **circuit** that provides resistance to some of the **current**
source	where something comes from
switch	a device for making and breaking the connection in an electric circuit
voltage	the force of an electrical current is measured in **volts**
wires	a long thin piece of metal that is used to fasten things or to carry an **electrical current**

Prior Learning

- Identify common appliances that run on electricity. (Y4)
- Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. (Y4)
- Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery. (Y4)
- Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. (Y4)
- Recognise some common conductors and insulators, and associate metals with being good conductors. (Y4)

What I will know by the end of this unit

- Know different circuit symbols and their meanings and use these to draw simple circuit diagrams.
- Know what happens when more batteries, or batteries of a higher voltage, are added to a circuit and be able to explain why this happens.
- Know what happens when more bulbs, buzzers and motors are added to a circuit and explain why this happens.
- Know the effect of changing one component at a time in a circuit. For example:
    - what happens when the length of the wires changes?
    - what happens when you add a resistor to a circuit?
    - what happens when you turn a switch off (open)

Circuit Symbols

Symbol	Component
A	ammeter
	battery
	bulb
	buzzer
	cell
M	motor
	resistor
	switch (open)
	switch (closed)

