
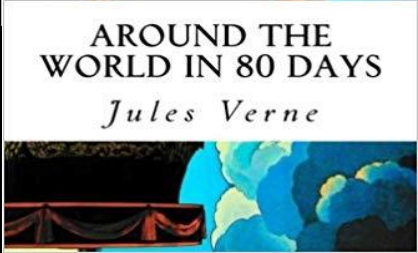






# Map Reading KS2 Knowledge Mat

Subject Specific Vocabulary			Exciting Books
<b>Ordnance Survey</b>	An Ordnance Survey map is a detailed map produced by mapping agency of the United Kingdom (UK).		<h3>Sticky Knowledge about Map Reading</h3> <ul style="list-style-type: none"> <li>Cartography is the study of maps and map making. Someone who makes maps is called a cartographer.</li> <li>There are two norths: true north and magnetic north. True north is the direction of the geographic North Pole. Magnetic north is the direction the north end of a needle in a compass points.</li> <li>Throughout Medieval times in Europe most maps of the world, known as Mappae Mundi, were expensive to create by hand, so were used by royals and nobles as displays of wealth rather than for practical purposes.</li> <li>The map that's familiar to most of us is the Mercator projection, but it is also, full of distortions.</li> <li>North may be at the top of maps today, but that wasn't always the case. During the middle ages, most Western maps put east at the top instead.</li> </ul>
<b>symbol</b>	Map symbols are used to represent real objects. Both shapes and colours can be used for symbols on maps.		
<b>hemisphere</b>	A hemisphere is formed by dividing the earth into the Northern and Southern Hemispheres at the equator.		
<b>latitude</b>	The lines extending around the Earth horizontally are called lines of latitude.		
<b>longitude</b>	The lines extending around the Earth vertically are called lines of longitude.		
<b>time zones</b>	Time zones give specific areas on the earth a time of day that is earlier or later than the neighbouring time zones.		
<b>grid reference</b>	Numerical grid references consist of an even number of digits. Eastings are written before Northings.		
<b>aerial photograph</b>	Aerial photography is the taking of photographs of the ground from an elevated/direct-down position.		
<b>Greenwich meridian</b>	The prime meridian is the imaginary line that divides Earth into two equal parts: the Eastern Hemisphere and the Western Hemisphere, often called the Greenwich meridian.		
<b>tropics</b>	The tropics are regions of the Earth that lie roughly in the middle of the globe.		


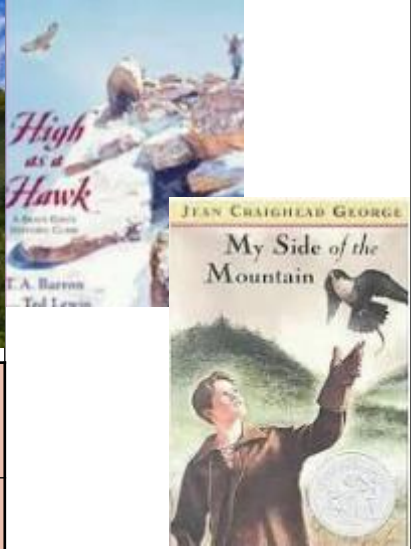
# Europe KS2 Knowledge Mat

Subject Specific Vocabulary			Exciting Books
<b>European Union</b>	The EU tries to make it easier for Europeans to buy and sell things/trade with each other.		
<b>Mediterranean</b>	It is a body of water that separates the continents of Europe, Africa and Asia.		
<b>Euros</b>	Euros is the currency used by many of the European Union countries.		
<b>paella</b>	Paella is a dish cooked especially in Spain, which consists of rice mixed with small pieces of vegetables, fish, and chicken.	<h3>Sticky Knowledge about Europe</h3> <ul style="list-style-type: none"> <li>There are 44 countries in Europe. A small number of countries on the continent are transcontinental, meaning they are considered to be a part of both Europe and Asia.</li> <li>Moscow, in Russia, is the largest city (not including transcontinental cities) with more than 12 million inhabitants.</li> <li>Mount Elbrus in Russia (5,642 metres/18,510ft) is the highest mountain in Europe and is part of the Caucasus mountain range.</li> <li>The Volga River in Russia (3,530km) is Europe's longest river.</li> <li>The Danube is the most important commercial waterway in Europe.</li> <li>Lake Ladoga in Russia is Europe's biggest lake and among the world's biggest freshwater lakes.</li> </ul>	<h3>Some European flags</h3> 
<b>Brexit</b>	Brexit stands for Britain exiting the European Union. In a vote in 2016, adults in Britain narrowly voted for leaving the EU.		
<b>Berlin Wall</b>	The wall that used to separate East Berlin and West Berlin. It was built in order to prevent people from fleeing East Berlin.		
<b>Eiffel Tower</b>	The Eiffel Tower is situated in Paris and was constructed as part of the world fair in Paris in 1889.		
<b>Greek Isles</b>	Greece has a number of islands around its main land which are famous for being holiday destinations.		
<b>fjords</b>	Long, narrow, deep inlet of the sea between high cliffs, as in Norway, typically formed by submergence of a glaciated valley.		

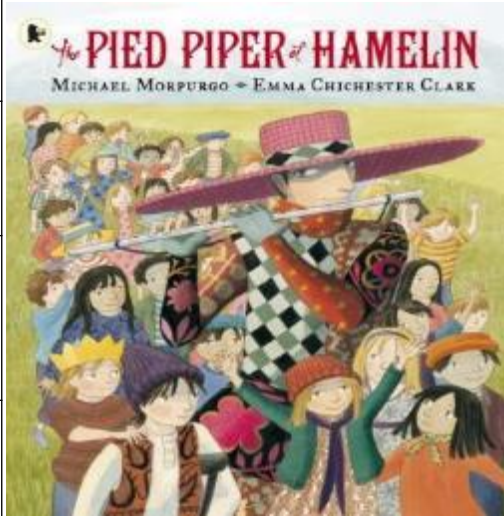
# Rivers KS2 Knowledge Mat

Subject Specific Vocabulary			Exciting Books		
<b>estuary</b>	An estuary is an area where a freshwater river or stream meets the ocean.				
<b>mouth</b>	A river mouth is the part of a river where the river flows into another river, a lake, a reservoir, a sea, or an ocean.				
<b>source</b>	The source of a river is where it begins, usually in high ground.				
<b>meander</b>	A meander is a winding curve or bend in a river.				
<b>waterfall</b>	Waterfalls form where water rushes down steep hillsides in upland areas and erodes the rocks.				
<b>erosion</b>	Erosion occurs when the fastest currents in the river carve intensely into the banks.	World's best known rivers			
<b>deposition</b>	Rocks and sediments eroded from one part of the river are deposited in another part.	<b>Amazon</b>	Situated in Brazil, it is 4000 miles long. Runs through the Amazon rainforest.	British rivers	
<b>tributary</b>	When one stream meets another and merge together, the smaller stream is known as a tributary.	<b>Nile</b>	The world's longest river (4,160 miles long) and runs into the Mediterranean.	<b>Thames</b> London river that is 184 miles long.	
<b>ox bow lake</b>	Ox bow lakes are created when the meander is so deep that it cuts off a piece of the meander.			<b>Seven</b> Britain's longest river (220 miles) from Wales to Bristol.	
<b>delta</b>	Deltas are often found at the mouth of large rivers.			<b>Mersey</b> Liverpool river that is 70 miles long.	
<b>stream</b>	A stream is a small body of flowing water.				

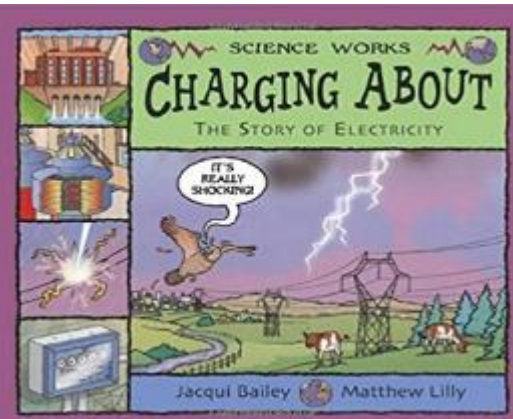
# Mountains KS2 Knowledge Mat

Subject Specific Vocabulary			Exciting Books		
<b>peak</b>	The peak is the highest point of any mountain.				
<b>valley</b>	A valley is a long depression, or ditch, in Earth's surface and usually lies between ranges of hills or mountains.				
<b>cliff</b>	Cliffs are tall, steep rocks that were created by erosion and have vertical faces.				
<b>ridge</b>	A ridge is part of the steep, sloping side of a mountain.				
<b>plateau</b>	A plateau is an area of flat ground that is much higher than the surrounding area.	<b>Sticky Knowledge about mountains</b>			
<b>summit</b>	The summit is the highest point of a mountain.	<input type="checkbox"/> Mountains make up one-fifth of the world's landscape.			
<b>hill</b>	A hill is a landform that is high but not high enough to be a mountain.	<input type="checkbox"/> Mount Everest is the world highest mountain and it is 8,850m high.			
<b>terrain</b>	Terrain is used as a general term when referring to the lie of the land.	<input type="checkbox"/> There are mountains under the surface of the sea.			
		<input type="checkbox"/> 80% of our fresh water originates from mountains.			
<b>range</b>	A mountain range is a group or chain of mountains that are close together.	<input type="checkbox"/> The highest 14 mountains in the world are all found in the Himalayas.			
<b>tectonic plates</b>	The Earth's outer layer is made up of large, moving pieces called plates.	<input type="checkbox"/> Generally mountains are higher than 600m, if they are less they are called hills.			
<b>fold mountains</b>	Fold mountains are formed when two plates run into each other or collide.	<input type="checkbox"/> Mountains can be rocky and barren but some have trees growing on their sides and very high mountains have snow on their peaks.			
		<b>British mountains</b>			
		<b>Ben Nevis</b>			
		<b>Snowdon</b>			
		<b>Pennines</b>			
		<b>Scafell Pike</b>			

# Year 4: Sound Knowledge Mat

Subject Specific Vocabulary		Interesting Book	Sticky Knowledge about Sound
<b>vibrating</b>	Sound is caused by the vibration of a medium (usually air) and it travels in waves.		<input type="checkbox"/> Sound travels with a speed of 767 miles per hour but it cannot travel through a vacuum.
<b>pitch</b>	A high sound has a high pitch and a low sound has a low pitch. A tight drum skin gives a higher pitched sound than a loose drum skin.		<input type="checkbox"/> Sound comes from vibrations. These vibrations create sound waves which move through mediums such as air and water before reaching our ears.
<b>volume</b>	Volume is the perception of loudness from the intensity of a sound wave. The higher the intensity of a sound, the louder it is perceived in our ears, and the higher volume it has.		<input type="checkbox"/> Dogs can hear at a higher frequency as compared to humans.
<b>insulation</b>	Protecting something by surrounding it with material that reduces or prevents the transmission of sound.		<input type="checkbox"/> Our ears vibrate in a similar way to the original source of the vibration, allowing us to hear many different sounds.
<b>outer, middle and inner ear</b>	The ear is made up of three different sections: the outer ear, the middle ear, and the inner ear. These parts all work together so you can hear and process sounds.		<input type="checkbox"/> When traveling through water, sound moves four times faster than when it travels through air.
<b>cochlea</b>	The cochlea looks like a spiral-shaped snail shell deep in your ear. It plays an important part in helping you hear.	<b>Important facts to know by the end of the sound topic:</b> <ul style="list-style-type: none"> <li>• Know how sound is made.</li> <li>• Know how sound travels from the source to the ears.</li> <li>• Know to associate sound with vibration.</li> <li>• Know the correlation between pitch and the object producing a sound.</li> <li>• Know the correlation between the volume of a sound and the strength of the vibrations that produced it.</li> <li>• Know what happens to a sound as it travels away from its source.</li> </ul>	<input type="checkbox"/> Sound is used by many animals to detect danger, warning them of possible attacks before they happen.
<b>auditory</b>	Auditory is close in meaning to acoustic and acoustical, but auditory usually refers more to hearing than to sound.		<input type="checkbox"/> The loud noise you create by cracking a whip occurs because the tip is moving so fast it breaks the speed of sound!
<b>frequency</b>	Frequency is measured as the number of wave cycles that occur in one second.		
<b>hammer</b>	The ear has little bones called ossicles that help you hear! They are called the hammer (malleus), anvil (incus), and stirrup (stapes). They amplify the sound or make it louder.		

# Year 4: Electricity Knowledge Mat

Subject Specific Vocabulary		Interesting Book	Sticky Knowledge about electricity
<b>circuit</b>	An electrical circuit is a path or line through which an electrical current flows.	 <p><b>CHARGING ABOUT</b> THE STORY OF ELECTRICITY</p> <p>IT'S REALLY SHOCKING!</p> <p>Jacqui Bailey Matthew Lilly</p>	<input type="checkbox"/> Electricity comes from power stations, wind, the sun, water and even animal poo!
<b>buzzers</b>	A buzzer is an automatic signalling device. They are used as alarms and door bells.		<input type="checkbox"/> Electricity is a type of energy that can build up in one place to flow to another.
<b>conductor</b>	A conductor is an object or type of material that allows the flow of an electrical current in one or more directions		<input type="checkbox"/> A power station is a place where electricity is created and sent to our homes.
<b>battery</b>	A battery is a device that stores chemical energy and makes it available in an electrical form.		<input type="checkbox"/> Electricity travels at the speed of light, which is more than 186,000 miles per hour.
<b>cells</b>	An electrical cell is a device that is used to generate electricity.		<input type="checkbox"/> One flash of lightning could power 1000 houses for a whole year.
<b>switch</b>	A switch is an electrical component that can 'make' or 'break' an electrical circuit.		<input type="checkbox"/> When an electric charge builds up on the surface of an object it makes static electricity. This is why we sometimes have a small electric shock.
<b>socket</b>	Sockets allow electrical equipment to be connected to the alternating current (AC) power supply in buildings and at other sites.		<input type="checkbox"/> The first power plant opened in 1882 and was opened by Thomas Edison.
<b>appliance</b>	An electrical appliance is a device that uses electricity to perform a function.		<input type="checkbox"/> Thomas Edison was a very famous inventor who helped us make the most of electricity from bulbs to fuses.
<b>appliance series circuit</b>	Components connected in series are connected along a single path, so the same current flows through all of the components.		
<b>insulator</b>	An insulator is a material whose internal electric charges do not flow freely.		
		<b>Important facts to know by the end of the electricity topic in Year 4</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Know about common appliances that run on electricity.</li> <li><input type="checkbox"/> Know how to construct a simple series electrical circuit.</li> <li><input type="checkbox"/> Identify and name the basic parts of the circuit, including cells, wires, bulbs, switches and buzzers.</li> <li><input type="checkbox"/> Know that a switch opens and closes a circuit.</li> <li><input type="checkbox"/> Know about some common conductors and insulators.</li> <li><input type="checkbox"/> Know that metals are good conductors.</li> </ul>	