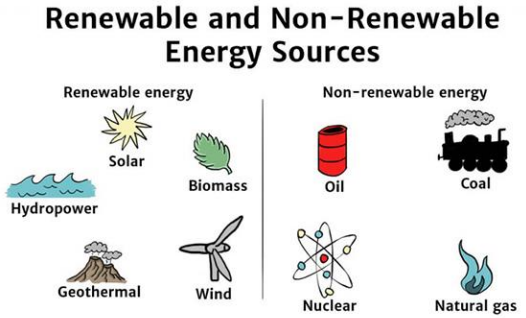
Y8 Science Term 5

Energy (Cost), Interdependence, Material Science

Week 1: **Energy Sources**

energy source	a source from which useful energy can be extracted or converted
renewable	an energy source that will not run out
non–renewable	an energy source that is used faster than it is replenished and will run out
power	the amount of energy transferred in a set amount of time
watts	the units of power
standard form	a method of writing small or large numbers e.g. $192 = 1.92 \times 10^2$



Week 2: **Energy Use**

fuel	a substance that is burned to release energy
joules (j)	the units for all types of energy
kilowatt hour (kwh)	the unit used to state the amount of energy used by a 1kW appliance for 1 hour
compare	to find similarities and differences between to objects
estimate	a rough calculation
conversion	the process of changing units by multiplying or dividing

Week 3: **Interdependence**

Biomass	the **total mass** of the organic matter of an organism
Producers 	organisms that produce their own food by photosynthesis.

Consumers

organisms that consume **other organisms** for energy.

Herbivore	**Carnivore**	**Omnivore**
Consumes producers only 	Consumes other consumers 	Feeds on producers AND consumers 

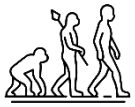
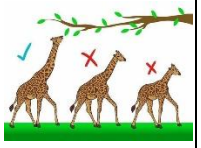
Predator	an organism that hunts.
	
Prey	an organism that is hunted.
Ecosystem 	all the **living organisms** and **non-living factors** in an environment.

Extension QR Codes - Read the BBC bitesize new knowledge page, watch the video, and complete the self quiz

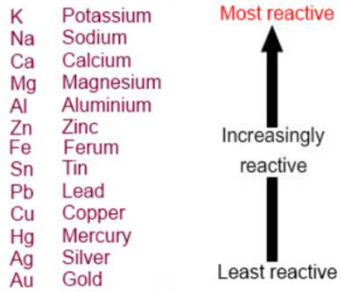
Y8 Science Term 5

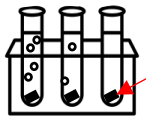
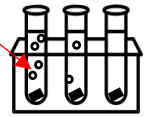
Photosynthesis, Separating mixtures, chemical/physical changes

Week 4: **Natural Selection and Biodiversity**

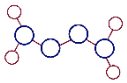
evolution 	the gradual change of a species over time
natural selection 	the process by which individuals who are **better adapted** to their environment can **survive** longer and increase their chances of reproducing.
adaptation	a characteristic which increases an organism's chance of survival and reproduction (e.g. **Longer neck** giraffes can reach food, so survive to reproduce).
gene 	a short section of DNA that is responsible for a characteristic such as blood group
extinction 	when there are no more individuals left of a particular species
biodiversity 	the variety of species living in an area

Week 5: **The Reactivity Series**



reactivity series	a list of metals arranged by their reactivity with the most reactive at the top.
reactivity	the tendency for a substance to undergo a chemical change.
inert 	very unreactive.
displacement reaction	when a more reactive metal **displaces** a less reactive metal from a compound. 
observation	what can be seen happening (in a chemical reaction). 
fizzing/ effervescence 	the production of a gas from within a solution.

Week 6: **Materials**

extraction	removing a metal from its ore.
ore	a rock containing metal compounds.
metal oxide	a compound containing metal and oxygen.
carbon	a non-metal used to extract less reactive metals from ores.
ceramic 	a hard, brittle, waterproof material.
polymer 	materials made from lots of smaller units (monomers) used for plastics.
recycle 	convert waste into reusable material

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