

Knowledge Organiser

Key Vocabulary

Weathering - the wearing away of rocks.

Erosion - the movement of the broken pieces away from the site of weathering.

Acidic - having a pH below 7.

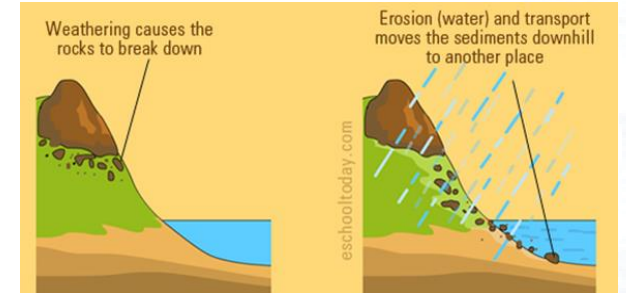
Composition - what something is made of.

Substance - a particular kind of matter

Rock - a solid mineral material formed on the surface of the Earth.



Key Knowledge



Weathering & Erosion

Weathering is the wearing away of rocks.

Erosion is the movement of the broken pieces away from the site of weathering.

For example a limestone cliff may be weathered and broken into smaller pieces. Erosion happens when these pieces of rock fall away down the cliff.

Types of Weathering

Freeze-thaw weathering - water enters the rock and freezes. Water then melts and causes cracks in the rock.

Biological weathering - plant roots get into small cracks in the rock. As the root grows the cracks grow larger and cause rock to break away.

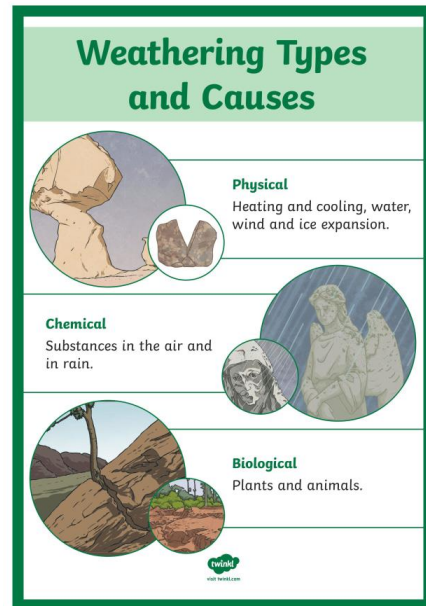
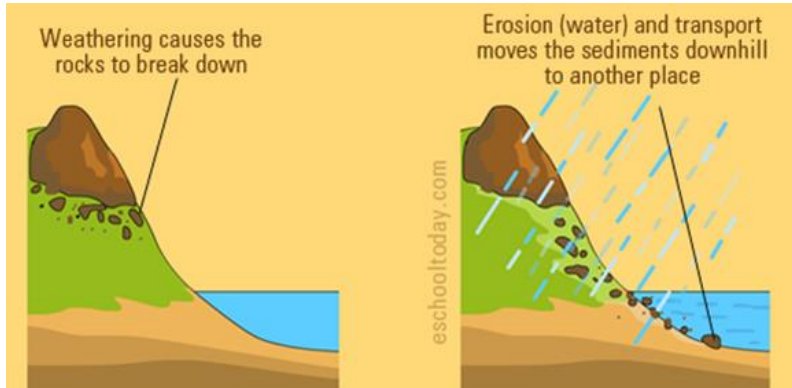
Chemical weathering - rainwater and seawater can be a weak acid. Over time rock can be dissolved by the acid in the water.

Previous topic

Current topic
Weathering & Erosion

Next topic

Key Diagrams...



How to become an expert!

BBC Bitesize

<https://www.bbc.co.uk/bitesize/guides/zwd2mp3/revision/4>

YouTube

<https://www.youtube.com/watch?v=QJUs4e2X5Uo>

<https://www.youtube.com/watch?v=R-Iak3Wvh9c>

Journals

<https://kids.frontiersin.org/articles/10.3389/frym.2021.575178>



Year 9 Science

Maximise 1

Physical properties - any property not involving a chemical change.



The periodic table is arranged in rows called periods and columns called groups.

Every element has its own symbol on the periodic table. (e.g. hydrogen = H)

Groups contain elements with similar chemical properties and physical properties. For example, the metals in group 1 are all reactive, whereas the elements in group 0 are all unreactive gases.

This means that we can make predictions about elements based on their position on the periodic table.

Group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Period	↓																		
1	1 H																	2 He	
2	3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne	
3	11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar	
4	19 K	20 Ca		21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5	37 Rb	38 Sr	*	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
6	55 Cs	56 Ba	*	71 Lu	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
7	87 Fr	88 Ra	*	103 Lr	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Kg	112 Cn	113 Nh	114 Fl	115 Mc	116 Lv	117 Ts	118 Og
					*	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb
					* Ac	89 Th	90 Pa	91 U	92 Np	93 Pu	94 Am	95 Cm	96 Bk	97 Cf	98 Es	99 Fm	100 Md	101 No	102 Lr

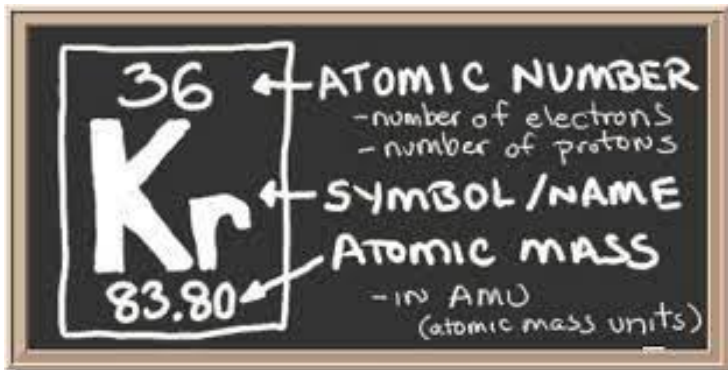
Previous topic

Current topic
Periodic Table

Next topic

Metal										Metalloid			Nonmetal				
H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La-Lu	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac-Lr															

La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr



How to become an expert!

BBC Bitesize

<https://www.bbc.co.uk/bitesize/topics/zv9nhcw>

YouTube

<https://www.youtube.com/watch?v=ORRVV4Diomg>

<https://www.youtube.com/watch?v=IdS9roW7IzM>

Journals

<https://kids.frontiersin.org/articles/10.3389/frym.2020.5268>



Knowledge Organiser

Year 9 Science
Maximise 1

Key Vocabulary

Pathogen - an organism that causes disease to its host.

Microorganism - an organism that can only be seen through a microscope.

Virus - an infectious microbe that must infect host cells to replicate.

Bacteria - a unicellular microorganism without a nucleus.

Fungi - a spore producing organism.

Symptom - a physical or mental response to disease.

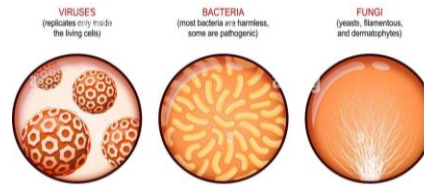
Replicate - make an exact copy of



Key Knowledge

Pathogens

Pathogens are disease causing microorganisms. There are 3 types of pathogens;



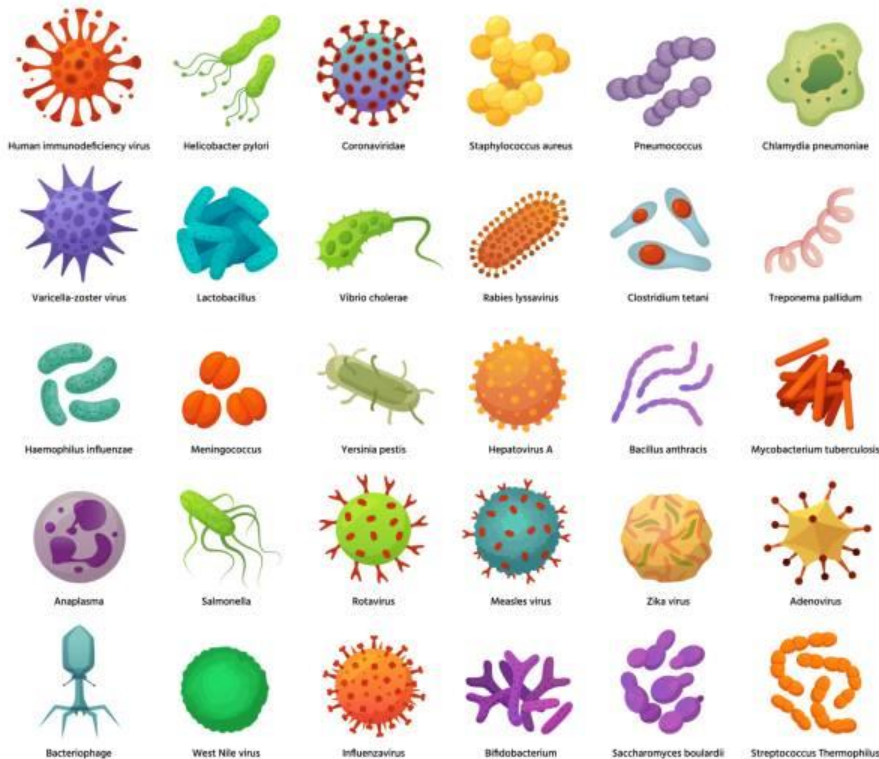
Type of Pathogen	How does it work?	Example
Virus	Infect a host body and replicate within cells.	TMV, HIV, measles
Bacteria	Prokaryotic cells that infect the body and release toxins.	Gonorrhoea, salmonella
Fungi	Can be unicellular or multicellular. Reproduce by releasing microscopic spores.	Athletes foot, rose black spot

Previous topic

Current topic
Infectious Disease, weathering and periodic table

Next topic
Electrical circuits

Key Diagrams...



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BBC Bitesize

<https://www.bbc.co.uk/bitesize/guides/zxr7ng8/revision/1>

YouTube

<https://www.youtube.com/watch?v=dbd5iydu3EY>

<https://www.youtube.com/watch?v=vO51sFre6fg>

Journals

<https://www.sciencejournalforkids.org/articles/can-we-detect-hiv-quickly-and-accurately-from-a-drop-of-blood/>

