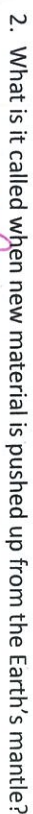


Year 8 Geology Revision

- # The Rock Cycle



3. In what types of rocks are fossils formed?

Sedimentary

- ## Hardness:

- It is very soft.

- Intrusive - cooling magma under the surface / slow cooling
- Extrusive - cooling lava on the surface

- No. 1 quartz is a mineral found in igneous rocks however quartz is found in quartzite which is a metamorphic rock. Sandstone \rightarrow quartzite.

3	The crust
4	The mantle
11	continental drift
10	convection
12	mid ocean ridges
17	seven
17	subduction zone
6	plate boundaries
5	joint
13	fault
18	pressure or tension
8	reverse fault
1	normal fault
16	folding
2	syncline
15	anticline
7	monocline

- | | |
|----|---------------------|
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[illegible]

DOWN

- | | |
|--|--|
| <p>3 The process that moves soil from one place to another.</p> <p>5 A black flaky mineral</p> <p>8 The hardest mineral.</p> <p>11 The process that breaks down rocks into smaller particles</p> <p>12 A mineral that is pinkish in colour</p> <p>14 The hardness of minerals is measured on this scale.</p> <p>15 The colour a mineral will leave behind on a white tile is called the</p> <p>16 Minerals are substances that always form</p> <p>17 The rotting animal and plant matter that is found in soil.</p> <p>18 Rocks that are made up of particles of other rocks that form layers</p> <p>19 This type of rain can cause chemical weathering.</p> | <p>1 An igneous rock that is made up of the minerals: quartz, mica and feldspar.</p> <p>2 The process where rocks "bend".</p> <p>4 A "U" shaped fold.</p> <p>6 A type of rock formed from molten earth materials</p> <p>7 A mineral that is white in colour and hard to scratch</p> <p>9 What rocks are made up of.</p> <p>10 The type of rocks that formed by heat and pressure changing other rocks</p> <p>12 This will form when a line of weakness in rocks can allow the one side to "slip" past another.</p> <p>13 A river of ice.</p> |
|--|--|

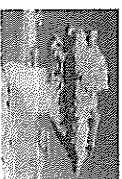
Weathering

Weathering is a process by which rocks are broken down into smaller pieces. Wind, water, ice and temperature changes are some of the agents of weathering.

Mechanical Weathering is when rocks are broken down without a chemical change taking place in the rock. Agents of mechanical weathering include:

Wind

Wind moves small particles of sand, when they smash against rocks it gradually wears them down.



Water

Water can carry grit and sand which wear away any surface it moves over.

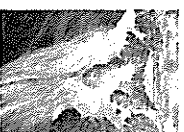
When waves crash against a rock face water may be forced into cracks. Enormous pressure in the crack causes pieces of rock to split away.



When water freezes it expands if the water is inside of crack in the rock pieces of rock may split away.

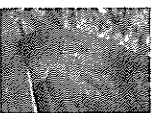
Glaciers

Glaciers are areas of moving ice. When the ice moves it wears down rocks.



Plants

Roots of plants may grow into cracks in a rock, as they get larger they cause the rock to split.



Changes in Temperature

Each day rocks heat up and cool down. Heating causes the rocks to expand and cooling causes them to contract. The difference in temperature between the outside and inside of the rock causes exfoliation, with pieces splitting away from the rock.



Chemical Weathering

Chemical weathering involves chemical changes in the materials which form rocks.

Agents of chemical weathering include:

Air

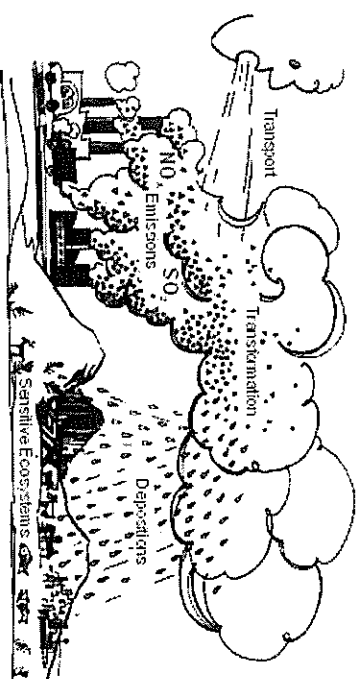
Oxygen in air reacts with many substances. This reaction causes the rocks to become softer and crumble.

Water

Some minerals react with water. This usually makes them expand and the expansion causes pressure and the rock crumbles.

Acids

Certain minerals dissolve in water. This causes the water to become acidic. Acid is especially important in the chemical weathering of limestone.



Sulfur dioxide is produced when fossil fuels are burnt. Acid rain is caused by sulfur dioxide reacting with water in the air. Acid rain chemically weathers the rocks and buildings.

Humic acid

Acid can enter water from decaying plant matter. The weak acid that is formed is called Humic Acid. This acid helps breakdown rocks.

Weathering

Weathering is a process by which _____ are broken down into _____ pieces. Wind, w_____, ice and temperature changes are some of the _____ of _____.

Mechanical Weathering is when rocks are broken down without a _____ change taking place in the rock. Agents of mechanical weathering include:

Wind

Wind moves small particles of _____, when they smash against rocks it gradually _____ them down.



Water.

Water can carry _____ and _____ which wear away any _____ it moves over.

When _____ crash against a rock face water may be forced into _____. Enormous _____ in the crack causes pieces of rock to _____ away.



When water freezes it _____ if the water is inside of crack in the rock pieces of rock may split away.



Glaciers.

Glaciers are areas of moving _____. When the _____ moves it _____ down rocks.



Plants.

_____ of plants may grow into _____ in a rock, as they get _____ they cause the rock to _____.



Changes in Temperature.

Each day rocks _____ up and _____ down. Heating causes the rocks to _____ and cooling causes them to _____. The difference in temperature between the _____ and inside of the rock causes _____, with pieces splitting away from the rock.

Chemical Weathering.

Chemical weathering involves _____ changes in the materials which _____ rocks.

Agents of chemical _____ include:

Air.

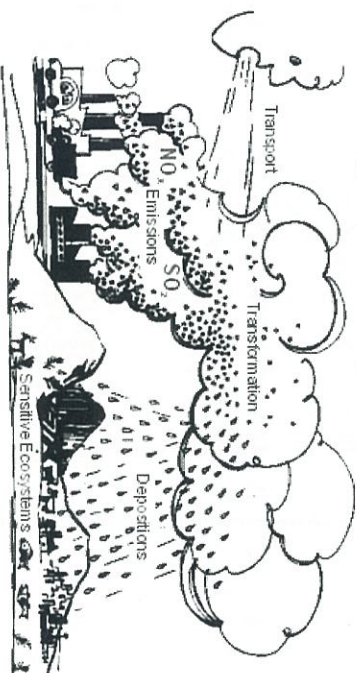
_____ in air reacts with many substances. This reaction causes the rocks to become _____ and _____.

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Some _____ react with water. This usually makes them _____ and the expansion causes _____ and the rock crumbles.

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Certain minerals _____ in water. This causes the water to become acidic. _____ is especially important in the chemical weathering of _____.



Sulfur _____ is produced when _____ fuels are burnt. Acid rain is caused by sulfur dioxide reacting with water in the air. Acid rain _____ weathers the rocks and _____.

Humic acid.

Acid can be enter water from _____ plant matter. The weak _____ that is formed is called _____. Acid. This acid helps _____ rocks.

GEOLOGY REVISION 2018

Weathering

For each type of weathering listed below – choose as physical (P) or chemical(C).

- 1) A path is worn into Uluru (Ayers rock) where the tourists walk up and down. P or C
- 2) Hydrochloric acid is poured onto limestone dissolving the rock. P or C
- 3) The roots of a plant force their way into a rock breaking it apart. P or C
- 4) Pure Iron in a rock combines with oxygen from the air to change the iron to iron oxide (rust). P or C
- 5) Water freezes in a rock and breaks the rock apart P or C
- 6) A rock made up of minerals such as the salt halite is placed in water and the halite dissolves and is "washed" out of the rock. P or C
- 7) A river of frozen ice (called a Glacier) moves across a section of rock and gouges holes in the rock P or C
- 8) Repeated heating and cooling of a rock causes it to break apart. P or C
- 9) A mineral in a rock called Calcite (CaCO_3) is dissolved out of a rock when exposed to CO_2 and water. P or C
- 10) A rock under pressure exfoliates (breaks off) a flat sheet of stone. P or C

1.	What is made up of several minerals mixed up together?	<u>Rocks</u>
2.	The name given to the way a mineral splits	<u>cleavage</u>
3.	If you rub a mineral on a piece of unglazed porcelain, what is left behind	<u>streak</u>
4.	Mohs scale is a measure of this	<u>hardness</u>
5.	The hardest of the minerals is	<u>diamond</u>
6.	The softest mineral	<u>talc</u>
7.	What colour is feldspar? <u>(usually)</u>	<u>pinkish</u>
8.	What colour is mica? <u>(usually)</u>	<u>black</u>
9.	What are two things that describe minerals	
10.	What are made rocks of	<u>minerals</u>
11.	What are the minerals that are contained in the rock Granite	<u>Quartz, feldspar, mica</u>
12.	What are the minerals that are contained in the rock Dolomite	
13.	What are the minerals that are contained in the rock Sandstone	
14.	What are the minerals contained in the rock Limestone	
15.	Which rock is formed if granite is heated and put under pressure	<u>gneiss</u>
16.	Name the innermost layer of the Earth	<u>core</u>
17.	Name the outermost layer of the Earth	<u>crust</u>
18.	Name the middle layer of the Earth	<u>mantle</u>
19.	What is molten rock under the Earth's surface called?	<u>magma</u>
20.	What is the name given to the molten rock that comes out of volcanoes	<u>lava</u>
21.	Rocks that are formed by the cooling of molten Earth materials	<u>igneous</u>
22.	Rocks formed by broken off pieces of old rocks cementing together	<u>sedimentary</u>
23.	Rocks formed by other rocks being changed by heat or pressure	<u>metamorphic</u>
24.	Name two igneous rocks	<u>pumice + basalt</u>
25.	Name one sedimentary rock	<u>sandstone</u>
26.	Name two metamorphic rocks	<u>marble</u>
27.	The process that leads to the breakdown of rocks:	<u>weathering</u>
28.	An example of physical weathering is	<u>river (flood)</u>
29.	An example of chemical weathering is	<u>acid (acid rain)</u>
30.	A line of weakness between rock masses where movement occurs	<u>fault</u>
31.	What type of fault is caused by pressure (rocks pushing together)	<u>reverse</u>
32.	What type of fault is caused by tension (rocks moving apart):	<u>normal</u>
33.	What is the name given to rocks bending:	<u>fold</u>
34.	When rocks bend and form a "U" shape, what is it called	<u>syncline</u>
35.	When rocks bend and form a "V" shape, what is it called	<u>anticline</u>
36.	When rocks fault and bend forming a step shape, what is it called	<u>horocline</u>
37.	Which type of rocks bend most easily	
38.	What can be trapped in rocks that bend in the "U" shape	
39.	What can be trapped in rocks that bend in the "V" shape	
40.	When broken rock gets moved away, what is this process called	
41.	What are three things that perform erosion on weathered rock	<u>friction</u>
42.	What name is given to a mineral that contains valuable elements	<u>lead, iron, uranium</u>
43.	Name the ore that contains the element Aluminium	<u>bauxite</u>
44.	Name the ore that contains the element Iron	

