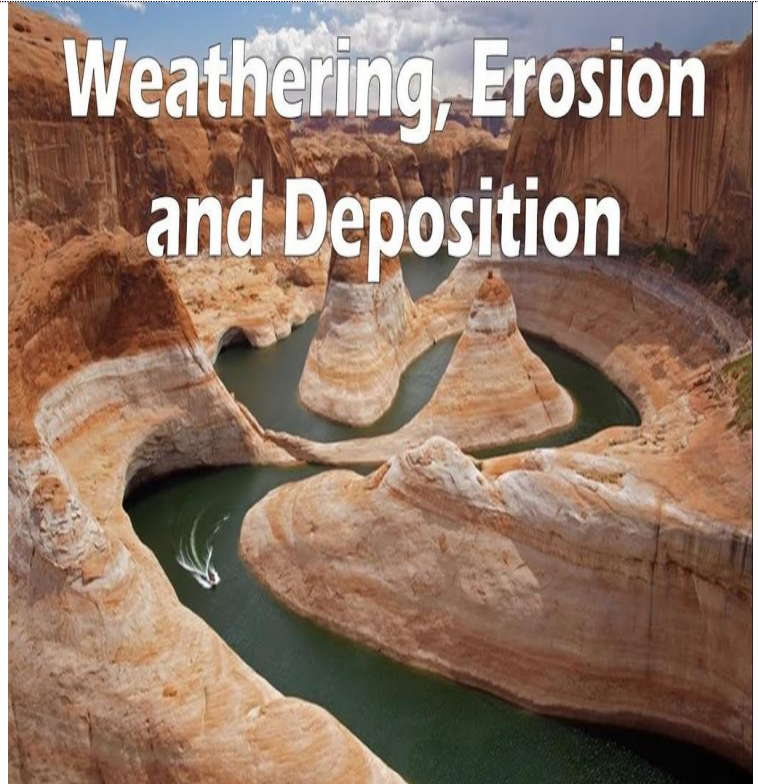
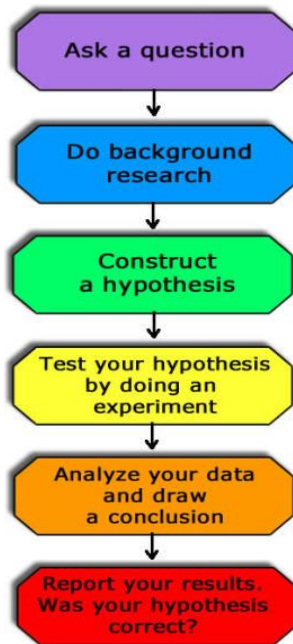


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<b>Subject:</b>	Science	<b>Scientific</b>		<b>Secti</b>	
<b>Lessons:</b>	Unit 3 L3: Changes in Landscapes Over Time				
				<b>TRI#</b>	2

### The Scientific Method



1. The slow process that breaks down rocks into small pieces is called **weathering**
2. There are two main kinds of weathering which are **physical weathering** and **chemical weathering**
3. The process that breaks down rocks into small pieces without change its chemical properties is called **physical weathering**.

#### 4. \*Factors of physical weathering are:

a-Abrasion

b-Freezing of water

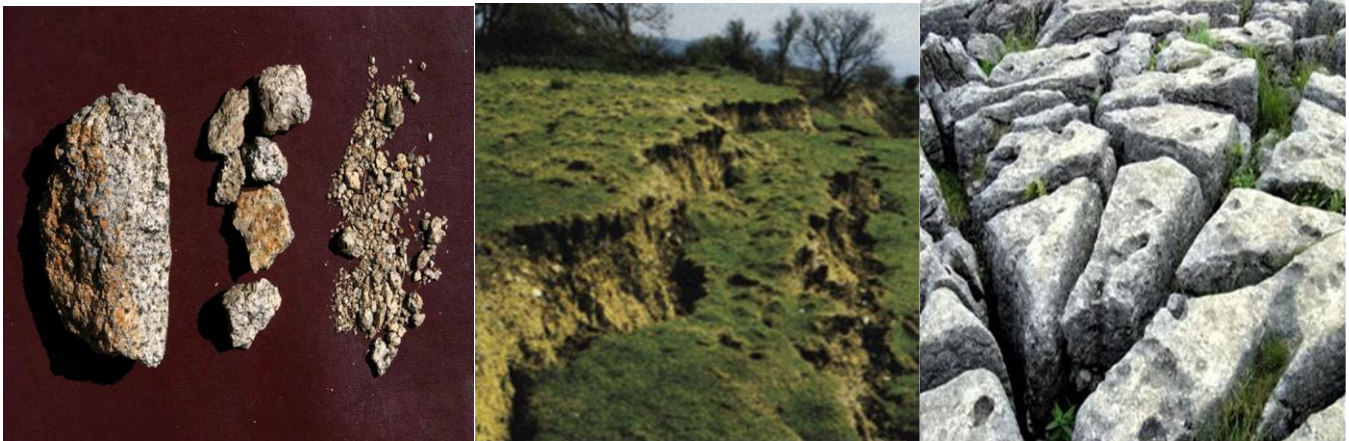
c- Gravity

d- Wind

e-glaciers

f-running water

g-plants and animals

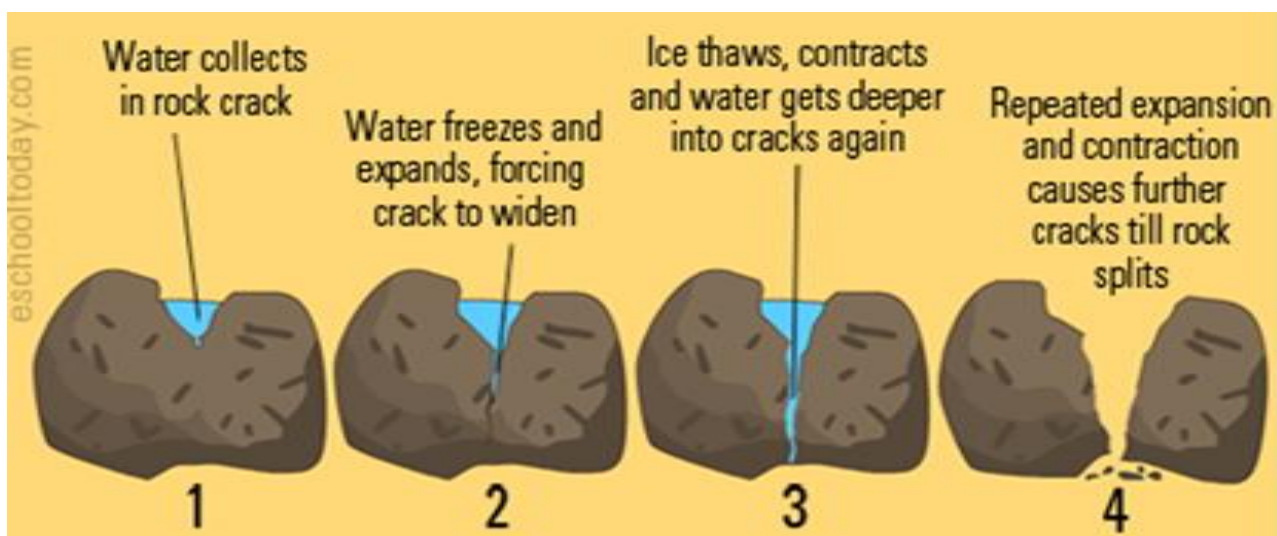


## Abrasion

Abrasion occurs when rocks rub against each other and become rounded.



5. **Abrasion** is a type of **physical weathering** happens by wind and water when rocks crashing together

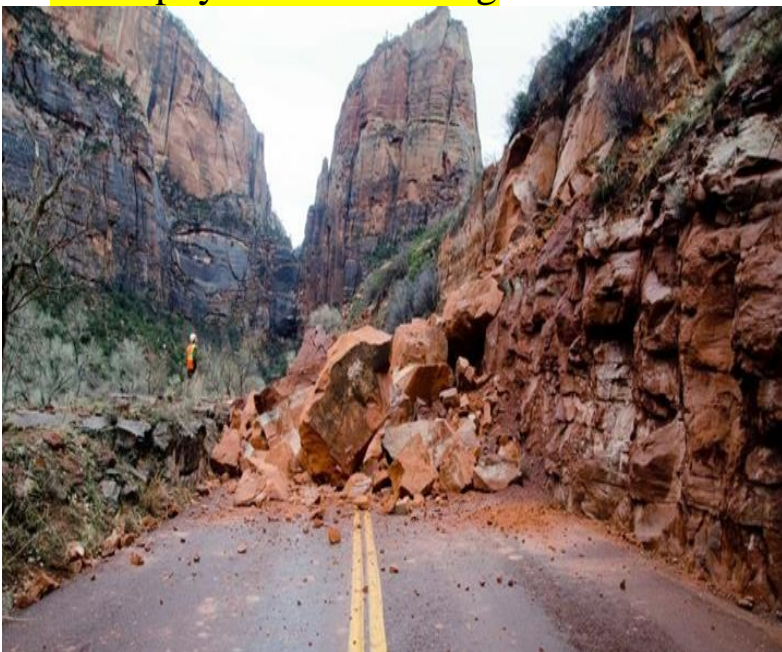


6. **Freezing of water** inside the cracks causes **physical weathering** as its volume increases.





7. The action of living things as growing plants roots and animal burrowing cause physical weathering.



8. Gravity causes materials and rocks to fall down , damage and move.



9. The process that breaks down rocks into small pieces and changes its minerals or chemical structure (new substance) is called chemical weathering.

10. Factors of chemical weathering are :

a- Acidic rains, b- plants roots, lichens c- (oxidation) rusting of minerals cause chemical weathering

11. Acidic rains can breakdown rocks causing chemical weathering.

12. Plants roots and lichens produce acids that cause chemical weathering.

### Living Organisms

- Lichens that grow on rocks produce weak acids that chemically weather rock



13. Mineral combine with oxygen to form rust (oxidation) that make the rocks soft causing chemical weathering

14. The movement of weathered materials from place to another is called **erosion** .

15. The process of **dropping off** the eroded materials in another place is called **deposition**.

16. **Erosion and deposition** occur by **gravity**, **running water**, **wind** and **glaciers**.

\*Fast moving water or wind has more energy and cause erosion.

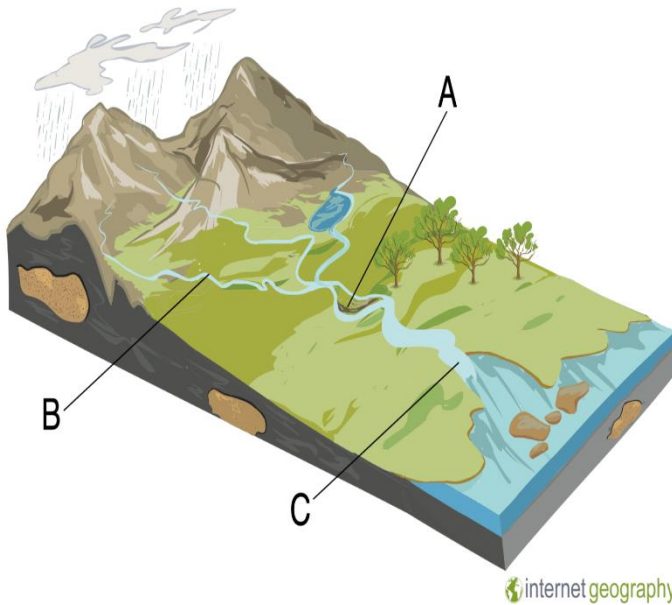
\*Deposition occur when the speed decreases (less energy).



17. **As water runs** downhill, it can carry away soil and erode rocks.

18. **Fast moving water** has **more energy** and carries sediments.





19. The sediments carried by the rivers are deposited to form a landform called delta.



20. The strong wind carries sand and particles causes erosion, sand dune is a deposit of windblown sand. (deposition).



21. **Glaciers** form where snow collects and erode solid rocks.



22. **At shorelines** water waves can break solid rocks and move sand **to deposit** them.

23. **The beach** is any area of shoreline made of materials (sand ) deposited by water waves.





24. Over cutting trees and spare(cut) vegetation cause land to erode at a faster rate.



**TERRACE FARMING**



24.Strategies that can help conserve soil are, wind breaks, breakwaters, vegetation, terracing and strip farming



**Choose the correct answer:**

1.Wind cannot cause abrasion.

A-True.

B- False

2.Many animals and plant's roots can split the rocks into pieces.

A-True.

B- False

3.Lichens and plant's roots cause chemical weathering of rocks.

A-True.

B- False.

4.Fast moving water has less energy and cannot erode the rocks.

A-True.

B- False.

5.Factors such as heavy rainfalls and sparse vegetation can cause land to erode.

A-True.

B- False

6. As the water moves, they can tear and erode the solid rocks.



7. The sediments carried by the rivers are deposited into a landform called.....

A-True.

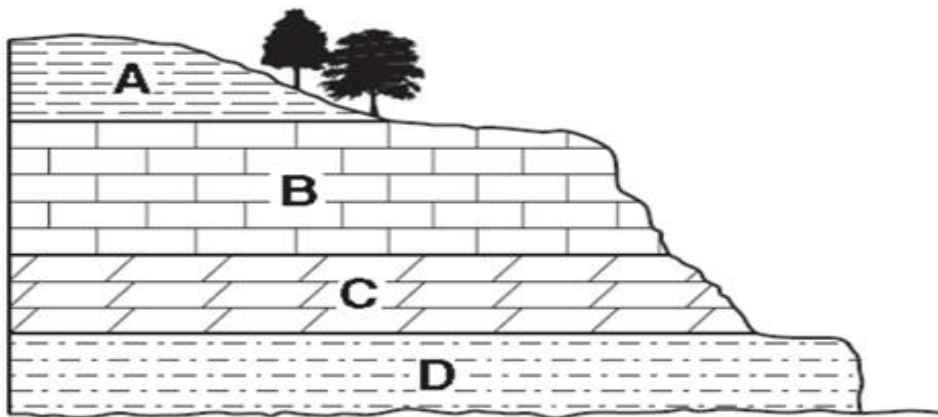
B- False.

8. A sand dune is a deposit of windblown sand.

A-True.

B- False.

9 The cross section below shows sedimentary bedrock layers *A*, *B*, *C*, and *D* exposed at Earth's surface.



Which layer appears to be the *least* resistant to weathering?

(1) *A*

(2) *B*

(3) *C*

(4) *D*

10. Terraces and strip farming are strategies to reduce soil erosion.

A-True.

B- False.