

The Rock Cycle

4.1



I. What is a Rock?

- Forming Rocks

- A rock is a mixture of minerals, mineraloids, glass, or organic matter.



II. The Rock Cycle

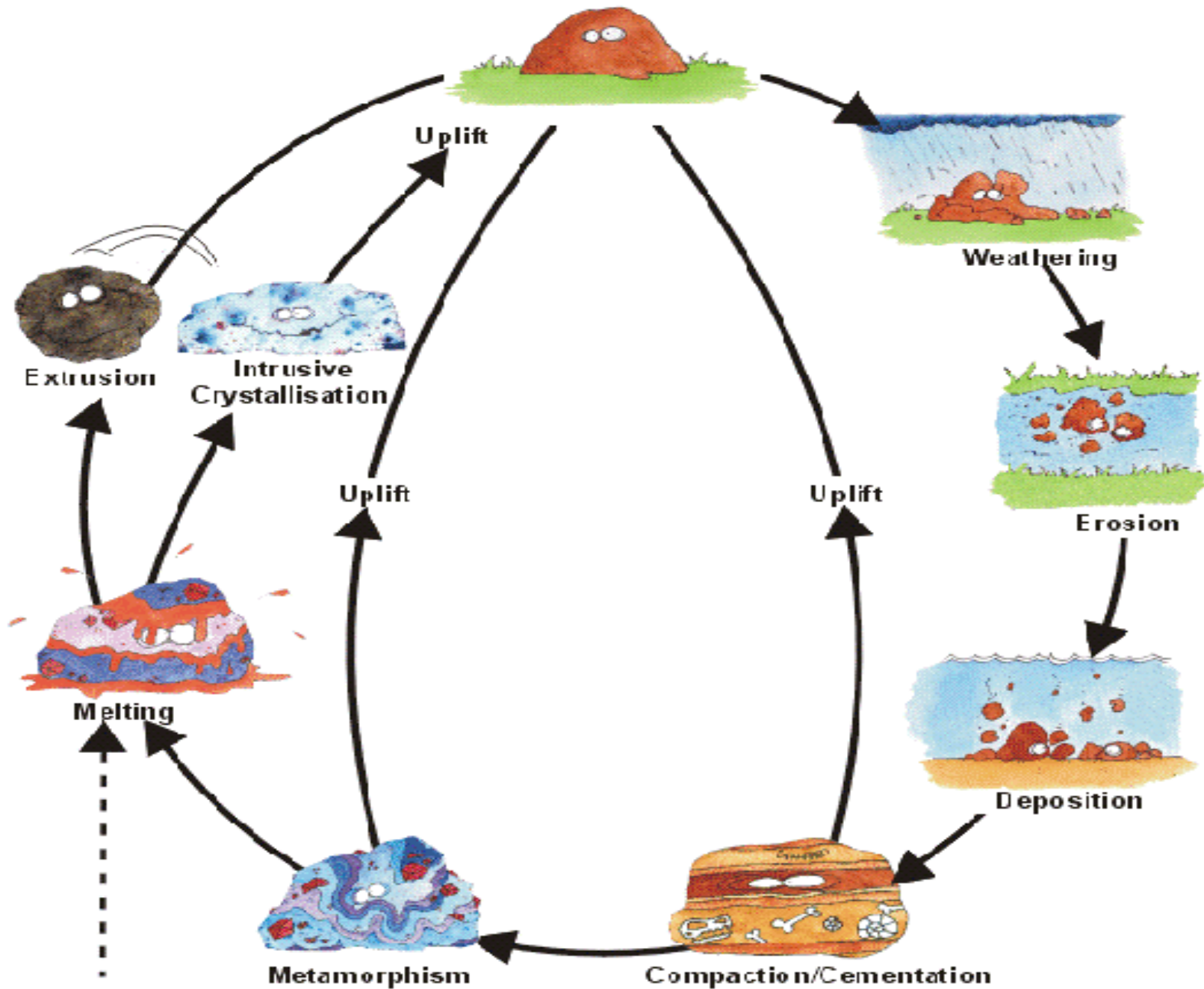
- a. The rock cycle is the processes by which, over many years, Earth materials form and change back and forth among igneous rocks, sedimentary rocks and metamorphic rocks



b. Rocks are changed by processes such as weathering, erosion, compaction, cementation, melting, and cooling

- sedimentary rock can be changed by heat and pressure into a metamorphic rock
- The metamorphic rock can then melt and later cool to form an igneous rock
- The igneous rock may weather and erode and the fragments from it form another sedimentary rock
- Heat and pressure can also change igneous rocks into metamorphic rocks

Rocks at the Earth's Surface



III. Discovering the Rock Cycle

- a. James Hutton, Scottish physician and naturalist, first recognized in 1788 that rocks undergo profound changes
- b. Hutton published his observations, which proved that rocks are subject to constant change

