ROCK CYCLE & ROLL

Race around the board following the rock cycle.

MATERIALS

- Scotch Tape
- 4 Different coloured pencils
- 4 Pebbles (Optional. Use anything to mark your place)
- 1 Six sided dice

Print off the four sheets for the board and tape them together.



Bucic

Tectonic

RULES

- Colour in the different hexagons representing the different states with different colours.
- The player who rolls the highest goes first.
- Turns progress clock wise around the table.
- Players take turns picking different starting states and placing their pebble on that hex.
- Colour the first block of your timeline, on your score card, the colour of your starting state.
- Roll the dice and progress along the track follwing the arrows.
- When you encounter a space with numbers you can only move onto or through that space if you've rolled the corresponding number.
- When you reach a junction you have to move in a direction if you can.
- When you **pass** a new rock state colour in the next block on your timeline with it's colour.

Sedimentary rocks are formed through the deposition and cementation of sediment. Sediment refers to any type of geological or biological particles small enough to be transported by forces such as wind or water.

- Sedimentation

Fossil Fuel Formation! Draw a piece of coal in your next box.

Sedimentory

______1 - 2

RULES (continued)

- When you **land** on a special event follow the instructions.
- You've completed the rock cycle once you have all the different states in your timeline **AND** you've returned to your starting state.

THE PROCESSES

Tectonic Burial is the deformation of rocks caused by extreme pressure over millions of years. It is usually the result of continental collisions or subduction in a region.

Tectonic Uplift is the geologic uplift of Earth's surface that is attributed to plate tectonics.

Melting happens because of heat, pressure, and the presence of water. Water can lower the melting point of rock.

Crystallization is the process of liquid rock freezing into solid rock. Since liquid rock is made of many components the process is complex. Different components freeze at different temperatures.

Erosion is when rock is worn away and transported by natural forces like wind and water.

Sedimentation happens as layers of sediment from erosion build up and harden into sedimentary rock.

Metamorphic rocks are formed whenever you take an initial rock and subject it to high temperatures and pressures so that some of the rock's fundamental properties change.

(1 or 6

2 - 5

wetamorphic

1 - 3







	Legend	X Extreme weathering
Name:	Igneous	Fossil formation
	Sedimentary	Fossil fuel formation
Colour in your starting state!		Volcanic gemstones
Rock Cycle & Roll score card	Legend	X Extreme weathering
Name:	Igneous	Fossil formation
	Sedimentary	Fossil fuel formation
Colour in your starting state!	Mefamorphic	Volcanic gemstones
Rock Cycle & Roll score card	Legend	X Extreme weathering
Name:		Fossil formation
Name:	Igneous Sedimentary Metamorphic	Fossil formation Fossil fuel formation
Name: Colour in your starting state!	Igneous Sedimentary Metamorphic	Fossil formation Fossil fuel formation Volcanic gemstones
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