

Rock Cycle Routes

Track how rocks change through Earth processes.

SC.7.E.6.2 "Identify the patterns within the rock cycle and relate them to surface events (weathering and erosion) and sub-surface events (plate tectonics and mountain building)."

NAME _____

DATE _____

1 LABEL THE MODEL _____ Word bank below

Use the word bank to write one process in each numbered box. Follow the arrows from each rock material to the next stage.

WORD BANK

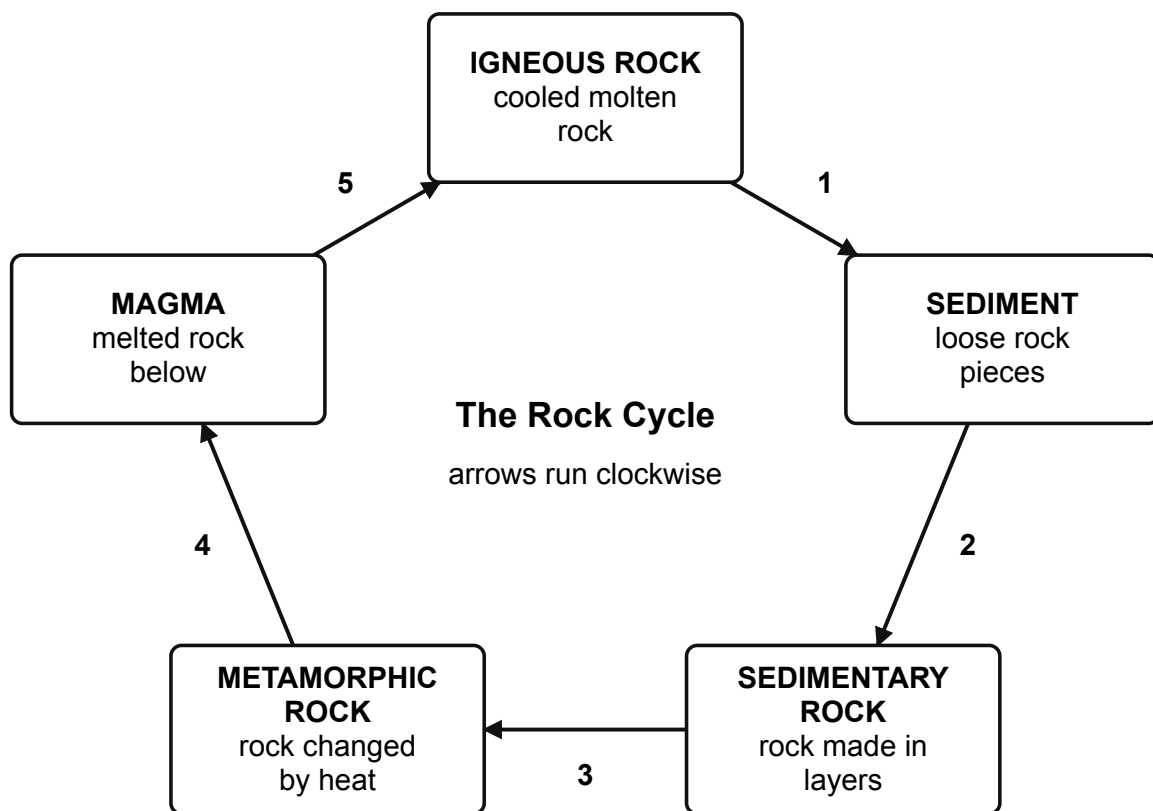
compaction and cementation

cooling and crystallization

heat and pressure

melting

weathering and erosion



Arrow numbers match the response boxes on the next student section.

Label the arrows

Use the word bank to write the process for each numbered arrow.

Arrow 1

Arrow 2

Arrow 3

Arrow 4

Arrow 5

2 RUN THE MODEL _____ Use your finished diagram

1 Which numbered box shows the surface process that makes loose sediment from igneous rock?

2 Which process could occur when plate movement buries and squeezes rock during mountain building?

3 Starting at SEDIMENT, which three processes lead to MAGMA in this model?



CHECK IT

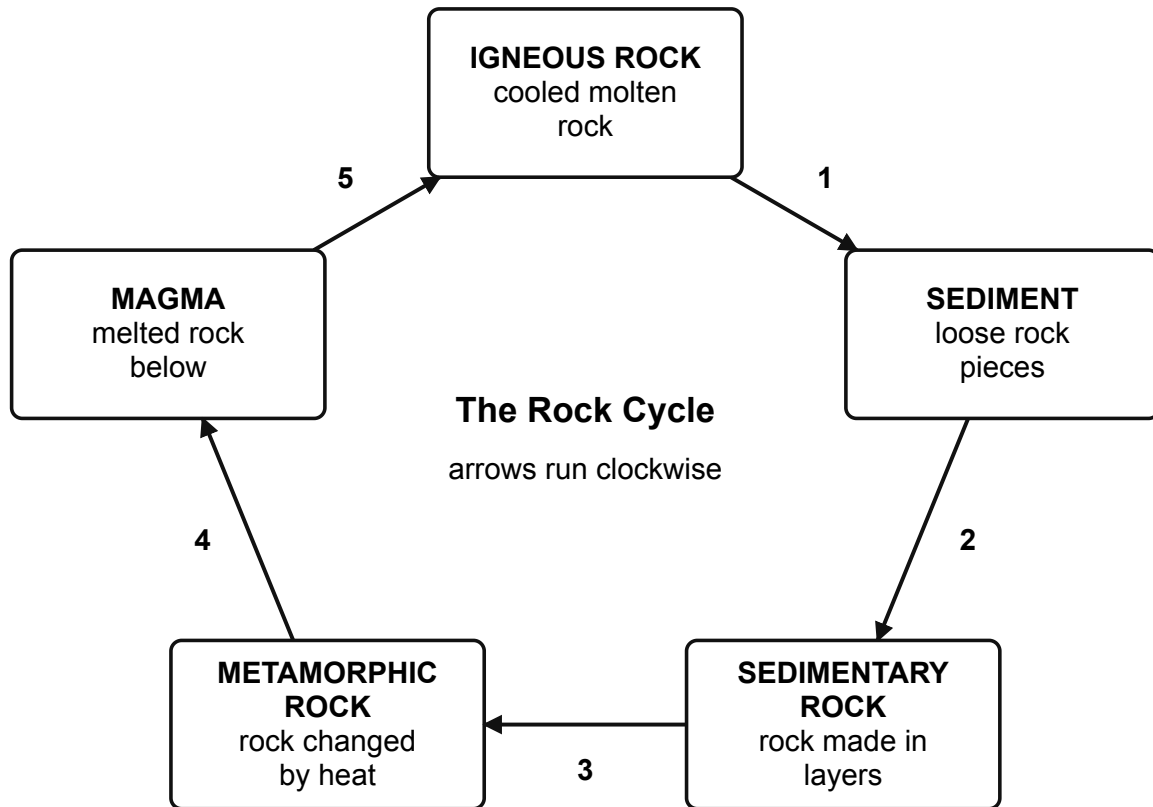
Before you turn it in

- ☐ I filled every numbered box.
- ☐ I can identify the surface process.
- ☐ I can identify deep Earth processes.

TEST THE MODEL

What important rock cycle pathway or Earth event does this model leave out?

PART 1 • COMPLETED MODEL

**Arrow 1**

weathering and erosion

Arrow 2

compaction and cementation

Arrow 3

heat and pressure

Arrow 4

melting

Arrow 5

cooling and crystallization

PART 2 • RUN THE MODEL

1. **Box 1, weathering and erosion.** (Which numbered box shows the surface process that makes loose sediment from igneous rock?)
2. **Heat and pressure.** (Which process could occur when plate movement buries and squeezes rock during mountain building?)
3. **Compaction and cementation, heat and pressure, then melting.** (Starting at SEDIMENT, which three processes lead to MAGMA in this model?)

TEST THE MODEL (SAMPLE ANSWERS)

- The model leaves out uplift, which can raise deep rock toward Earth's surface.
- The model leaves out volcanic eruptions that bring magma to Earth's surface.

Accept the processes in this arrow order: weathering and erosion, compaction and cementation, heat and pressure, melting, cooling and crystallization. Explain that the rock cycle has additional pathways beyond this simplified loop.