

Rock Cycle Routes

Track how rocks change through Earth processes.

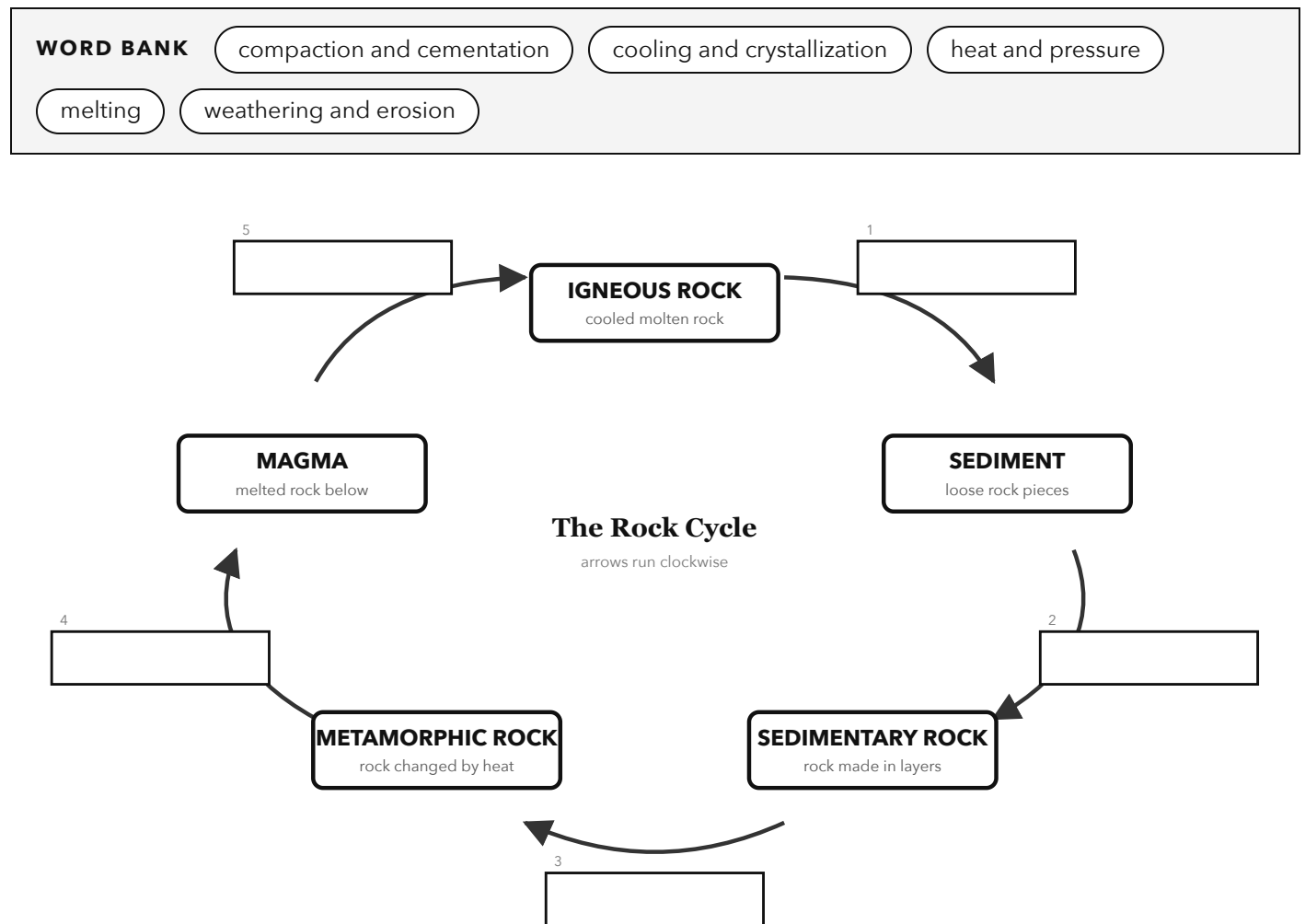
SC.7.E.6.2 "Identify the patterns within the rock cycle and relate them to surface events (weathering and erosion) and sub-surface events (plate tectonics and mountain building)."

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.



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?

3 CHECK IT Before you turn it in

☐ I filled every numbered box.

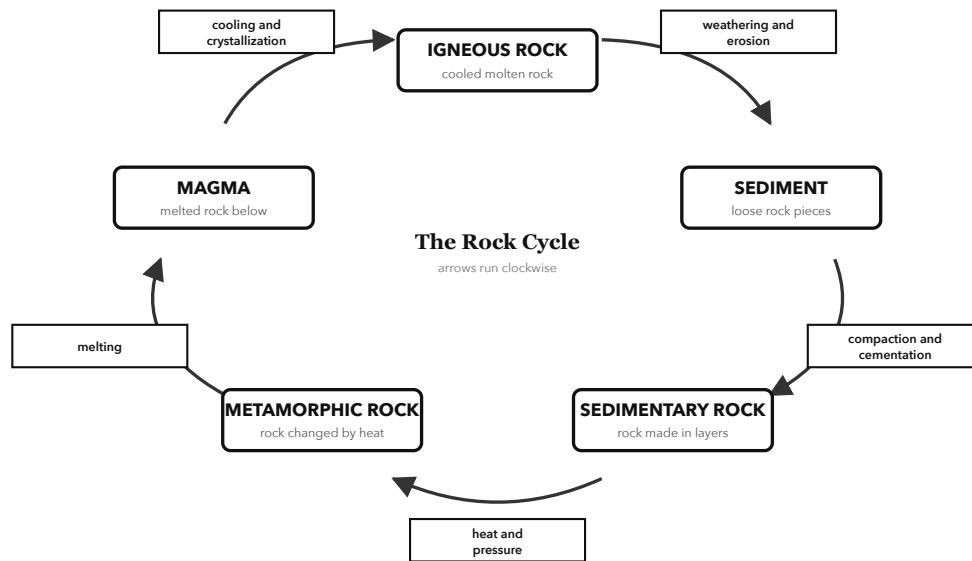
☐ I can identify the surface process.

☐ 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



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.