

# Rock Simulation

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**Earth and Space Science**  
**Unit 1**

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Rock Simulation

Metamorphic Rock

SEDIMENTARY ROCK

Magma

SEDIMENT

IGNEOUS ROCK

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Rock station signs for classrooms are on the following pages with descriptions.  
Print out one of each sign for your classroom.  
Post Descriptions under signs.

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## Igneous Rock

# You are **IGNEOUS ROCK!**

You are a rock that formed when magma cooled down and became hard. If you cooled down underneath earth's surface, you're called **intrusive igneous rock**. If you cooled down above earth's surface, you're called **extrusive igneous rock**.

*FUN FACT: 95% OF EARTH'S CRUST IS MADE OF IGNEOUS ROCK!*

Assign three people in your group to be A, B, and C. Have A and B play rock-paper-scissors. Have whoever wins play a second game of rock-paper-scissors with C. (This person is the overall "winner".)

**If A wins:** It's getting really hot. Like really, really, really hot. You're **melting** into magma! Go to the Magma station.

**If B wins:** You're underground. It's getting hot and really tight in here! The **heat and pressure** beneath earth is turning you into metamorphic rock! Go to the Metamorphic Rock station.

**If C wins:** Gosh, it's really windy in this area. It feels like a new little piece of you breaks off and flies away every day! Wait . . . you've heard of this before . . . this is **weathering and erosion**, and you're being reduced to sediment! Go to the Sediment station.

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# IGNEOUS ROCK

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## Metamorphic Rock

# You are Metamorphic Rock!

You are rock that has been changed by extreme heat and pressure.

Fun fact: The famous Taj Mahal in India was made entirely from marble, which is a type of metamorphic rock!



[Photo from Wiki Commons](#)

*Assign two people in your group to be A and B. Have A and B play rock-paper-scissors.*

**If A wins:** It's getting really hot. Like really, really, really hot. You're **melting** into magma! Go to the Magma station.

**If B wins:** Gosh, it's really windy in this area. It feels like a new little piece of you breaks off and flies away every day! Wait . . . you've heard of this before . . . this is **weathering and erosion**, and you're being reduced to sediment! Go to the Sediment station.

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# Metamorphic Rock

# Magma

## You are **Magma!**

You are extremely hot, liquid rock underneath earth's surface.

**Fun fact: Sometimes magma decides to escape in the form of volcanic eruptions. When magma erupts, it becomes lava.**

*Have everybody in your group slowly count down to ten from zero.*

As you are counting down, imagine yourselves cooling. As you **cool**, you are hardening into . . . igneous rock! Go to the Igneous Rock station.

# SEDIMENTARY ROCK

## You are **SEDIMENTARY ROCK!**

You are rock that is composed of the deposits from sediments and other small particles.

### **FUN FACT: FOSSILS ARE USUALLY FOUND IN SEDIMENTARY ROCKS!**

*Assign two people in your group to be A and B. Have A and B play rock-paper-scissors.*

**If A wins:** You're underground. It's getting hot and really tight in here! The **heat and pressure** beneath earth is turning you into metamorphic rock! Go to the Metamorphic Rock station.

**If B wins:** Gosh, it's really windy in this area. It feels like a new little piece of you breaks off and flies away every day! Wait . . . you've heard of this before . . . this is **weathering and erosion**, and you're being reduced to sediment! Go to the Sediment station.

# SEDIMENT

## You are SEDIMENT!

You are composed of small bits of loose rock material.

**FUN FACT: SEDIMENT IS OFTEN TRANSPORTED BY WATER AND WIND, BUT IT CAN ALSO BE TRANSPORTED BY GLACIERS!**

*Have everybody in your group slowly count down to zero from ten.*

As you are counting down, imagine yourselves under pressure — you are being squished together. As you are **compacting and cementing**, you are hardening into . . . sedimentary rock! Go to the Sedimentary Rock station.

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Rock Cycle

