

Play Dough Earth: Layers Of the Earth



First Grade, Second Grade

Science,

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Use hands-on activities involving play dough to show your students the layers of the Earth!

Learning Objectives

Students will be able to identify the layers of the earth.

Materials and preparation

- Board markers
- Layers of the Earth worksheet
- What's the Earth Made Of worksheet
- Play dough
- Inside the Earth worksheet
- A boiled egg
- A butter knife

Key terms

- crust
- mantle
- core

Attachments

- Inside the Earth (PDF)
- Layers of the Earth (PDF)
- What's the Earth Made Of (PDF)

Introduction (5 minutes)

- Tell your students that they will learn about the layers of the Earth.
- Ask your students if they know the layers of the Earth.

Explicit Instruction/Teacher modeling (20 minutes)

- Draw a picture of the Earth on the board.
- Point to the **crust** and explain to your students that the crust is the thinnest layer of the Earth and makes up one percent of the Earth. Tell your students that we live on the hard crust.
- Point to the **mantle**, and explain that the mantle makes up two-thirds of the Earth's mass and is below the crust.
- Show the **core**, and explain to your students that the core consists of two parts. Tell your students that the outer core is solid and the inner core is liquid. Compare the core to a peanut butter sandwich and explain to your students that the outer core is like the bread while the inner core is like the peanut butter.

Guided Practice (20 minutes)

- Ask your students to complete the What's the Earth Made Of worksheet with a partner.
- Go over the worksheet as a class.

Independent working time (10 minutes)

- Ask your students to complete the Layers of the Earth worksheet.

Differentiation

- **Enrichment:** Ask your students to come up with their own analogies to the Earth and what it is made of. Have them give their examples to their peers. If your students have extra time, give them the Inside the Earth worksheet.
- **Support:** Have your students gather in the back. Get an egg and use a knife to create cracks in it. Tell your students that the outside of the egg is like the crust and has cracks. After that, peel off the egg and compare the white part to the mantle, as it takes up a lot of the mass. After that, dig through the yellow and compare that to the core.

Assessment (5 minutes)

- Walk around while your students are completing the worksheets, making sure that they are identifying the parts of Earth accurately.

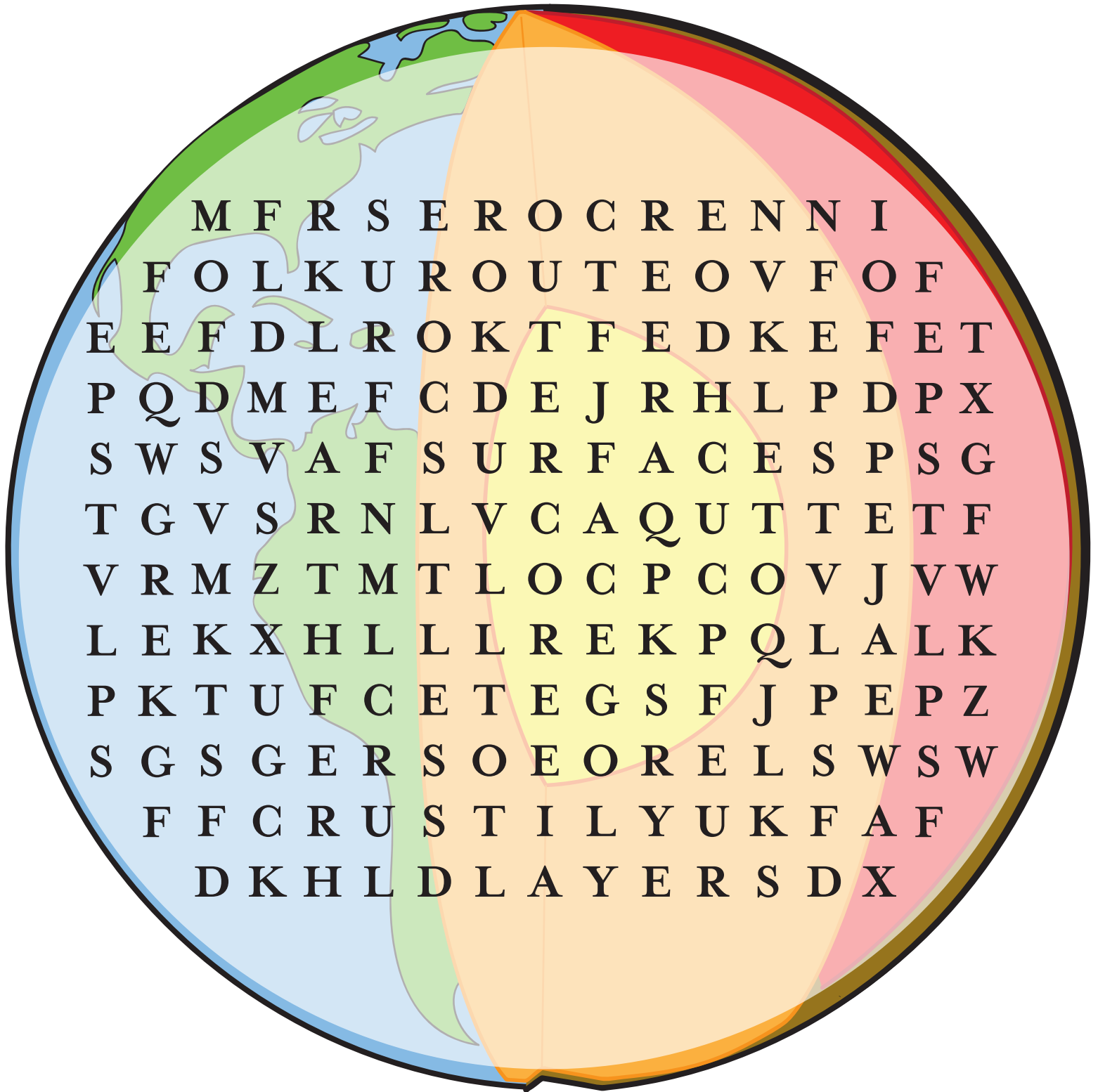
Review and closing (15 minutes)

- Divide your class into groups of three.
- Pass out three different colors of play dough to each group.
- Tell each group to construct the three layers of the Earth using play dough.

Name _____

Date _____

Inside the Earth



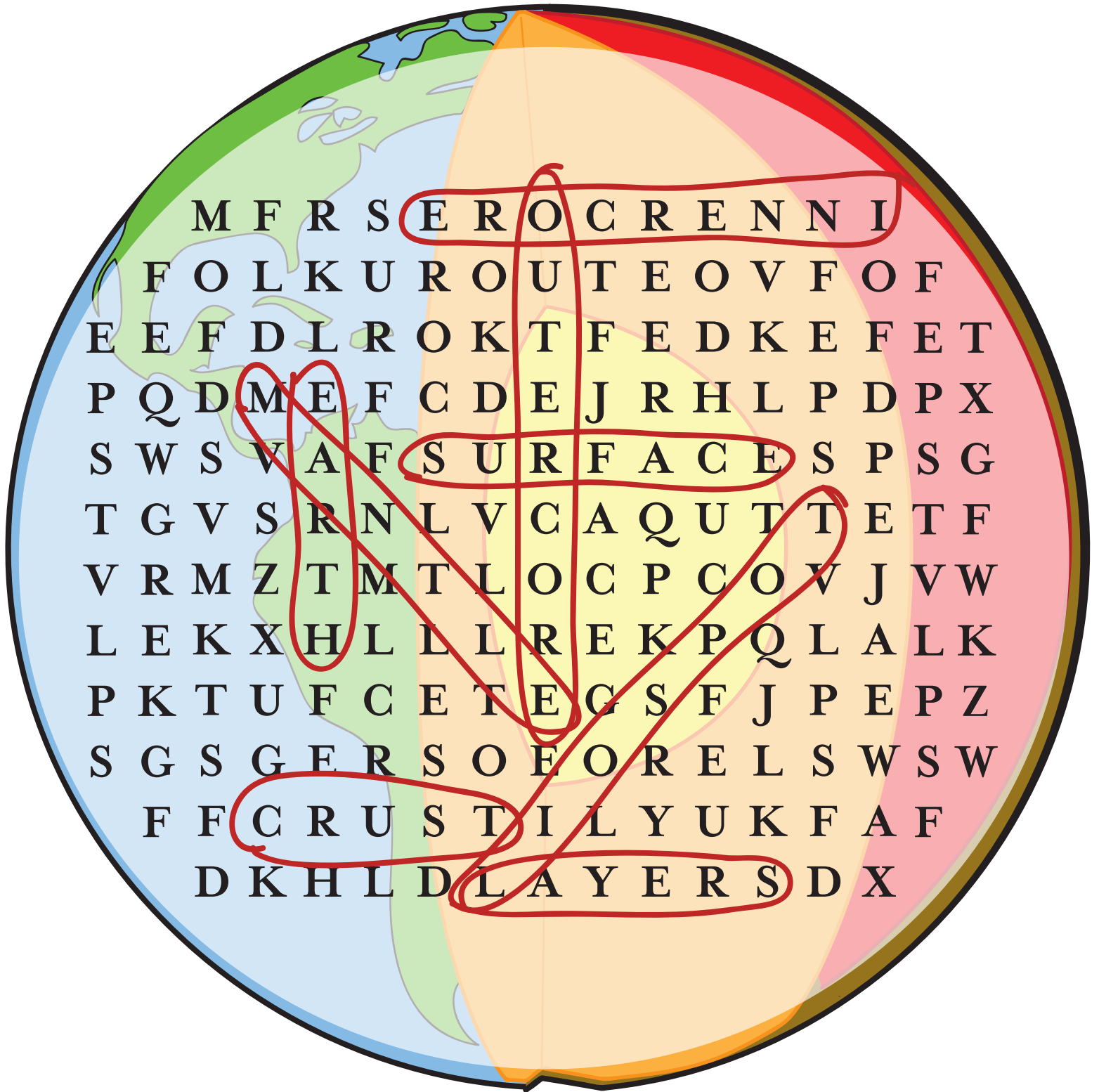
Search for the following words in the puzzle above.

**MANTLE • OUTER CORE • CRUST • INNER CORE
TOPSOIL • SURFACE • LAYERS • EARTH**

Name _____

Date _____

Inside the Earth



Search for the following words in the puzzle above.

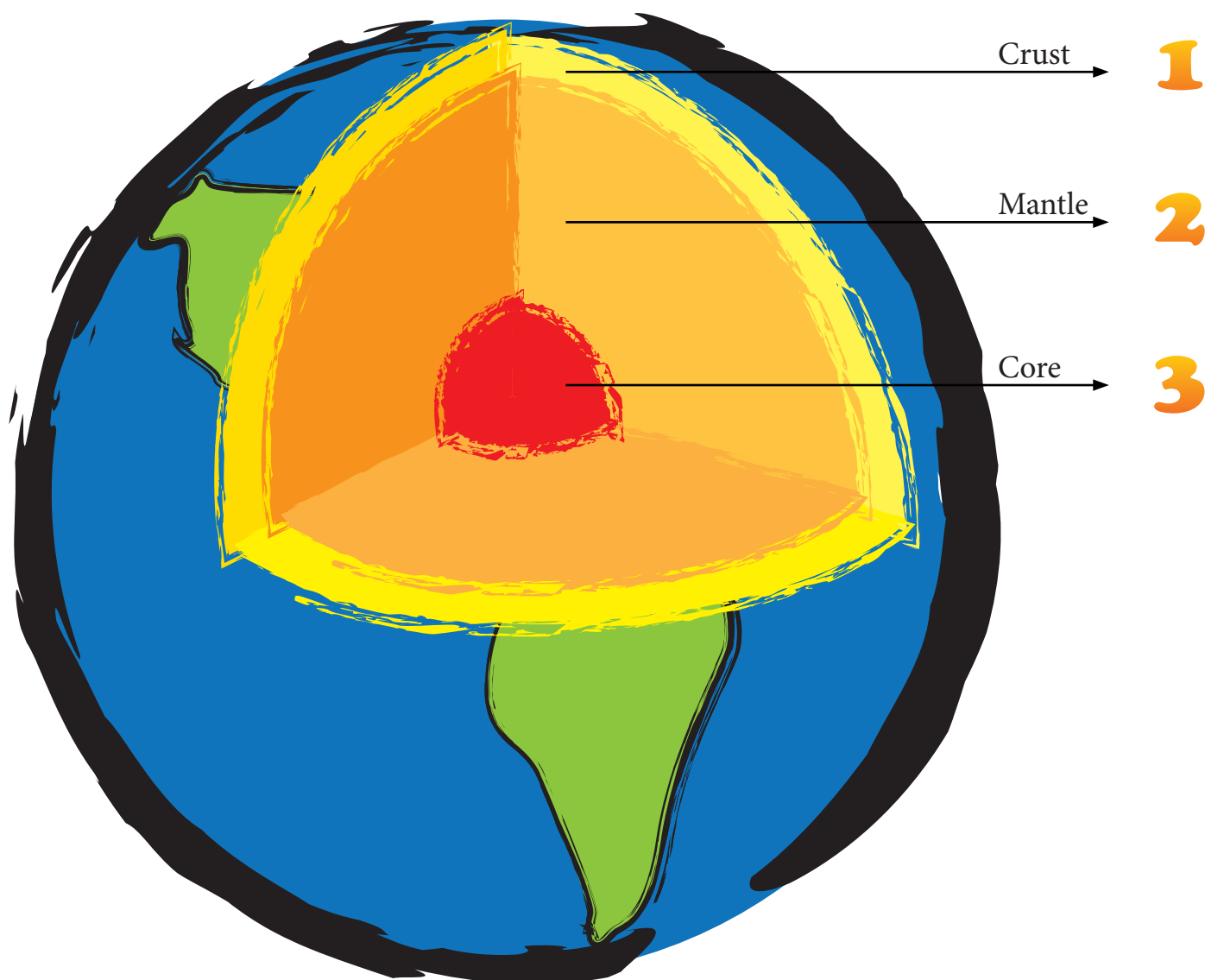
**MANTLE • OUTER CORE • CRUST • INNER CORE
TOPSOIL • SURFACE • LAYERS • EARTH**

Layers of the Earth

Can you guess the name of each of earth's layers?

Fill in the name of each layer of the earth, then number each description.

- The _____ is made of hot lava.
- The _____ is where we live, and where the continents and oceans are.
- The _____ is where most of the earth's heat is stored.



Answers: 3. Core 1. Crust 2. Mantle

WHAT'S THE EARTH MADE OF?



THE EARTH IS MADE OF FOUR LAYERS: the crust, the mantle, the outer core, and the inner core. The crust is only a few miles thick and is made of rocks. The mantle is the largest layer—about 1,800 miles thick—and is made of hot magma, which comes up out of the ground when volcanoes erupt. The core is even hotter, and is made up almost completely of metallic elements. Because it is made up of metal, scientists believe the core is what makes magnetism possible on Earth.

Label the layers of the Earth

