

PLATE TECTONICS WITH AN ORANGE

Title: **Plate Tectonics With An Orange**

Level: **K-12**

Day/Time:

[Academic Expectations](#)

[Core Content for Assessment:](#)

Objective: To acquaint the student with the concept of plate tectonics.

Materials:

oranges
clay or play dough (optional)
toothpicks

Activity:

1. Have the students peel the orange without the use of a knife and in as few pieces as possible. This peel represents the earth's crust and the crust is in pieces just like the orange peel.
2. Have the students lay the orange peel on their work surface and record their observations.
3. Tell the students to replace the peel on the orange, securing the peel with toothpicks.

Discussion:

1. The earth is spherical like the orange although it is difficult to see the roundness of the earth except from space.
2. What did the students observe when the orange peel was laying on their work surface? Did they notice that the pieces flattened out. The pieces didn't appear to be as round as they were when attached to the orange.
3. Now that the peel is back on the orange, this better represents the earth's crust. The cracks are called faults and it is the shifting of the plates (orange peel) which causes earthquakes and volcanic activity.
4. How do the continents fit into this theory?

Follow-up Activity:

Since most of the fault lines on the earth's crust are not visible, the students may wish to roll out a thin piece of clay (or play dough) and cover the orange. They should carefully remove

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the toothpicks as the clay is placed.

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