Lynn Ouellette
Plate Tectonics
Grade 6

	Brainwrite	Connect	Create	Elaborate
Continental Drift	Brainstorm a list of questions you would ask Alfred Wegener if he were alive today.	In what ways is Pangaea like a dog, Frenchville, a sailboat, and you?	Create a model showing the possible position of continents in the future using recyclable materials.	Elaborate on the effects of Pangaea on the ocean.
Plate Tectonics Theory	Generate ways to teach kindergarten students about plate tectonics.	In what ways is a plate movement like a cat, Long Lake, an apple, and you?	Create a model using materials of your choice that shows a new way for Earth's plates to move.	Elaborate on the qualities needed for a hypothesis to become a theory.
Seafloor Spreading	Brainstorm what would happen if the United States had several plate boundaries located on it.	In what ways is seafloor spreading like a moose, Kmart, a railroad track, and you?	Create a new invention that would stop the seafloor from spreading.	Elaborate on the qualities of being a good scientist.
Earthquakes	Generate ideas on what your family could do if they lived in a building that was not earthquake-safe.	In what ways is an earthquake like a cow, school, a chocolate bar, and you?	Create a new instrument for predicting earthquakes.	Elaborate on the job of a scientist who predicts earthquakes.

	Creative Problem Solving
Continental Drift	Solve the problem of convincing other scientists to believe in your new scientific findings as a scientist.
Plate Tectonics Theory	Solve the problem of learning about plate tectonics if you can't read.
Seafloor Spreading	Solve the problem of volcanoes erupting in the ocean.
Earthquakes	Solve the problem of earthquake damage in California.

Teacher's Name: Lynn Ouellette Grade level: Grade 6

LESSON PLAN

DIMENSIONS OF CURRICULUM:

Content: Plate tectonics
Process: Experimentation
Product: "connect" graphic organizer
Research: None

LEARNING OBJECTIVE:

In their study of plate tectonics, students will perform the snack tectonics experiment, will connect plate movement to a cat, Long Lake, an apple, and you and present their ideas in a "connect" graphic organizer.

PLACEMENT IN UNIT:

Introductory **Midway** Follow-up

INSTRUCTIONAL STRATEGY:

Type: creative thinking ("connect" graphic organizer)

INSTRUCTIONAL ACTIVITIES/THE TEACHER WILL:

1. Review the three different plate movements with students in a class discussion. Remind students to refer to their notes.

2. Provide students with the snack tectonics experiment procedure.

3. Have students perform the experiment in small groups, and fill out the laboratory report together.

3. Have students return to their seats. Discuss that the experiment provides a visual model for plate movement.

How can we compare the snack tectonics model to actual plate movement

4. Show the "connect" graphic organizer that was filled in the previous day on the SmartBoard. **?**

5. Review how to fill in the "connect" graphic organizer.

6. Ask students to connect plate movement to a cat, Long Lake, an apple, and you by filling out a "connect" graphic organizer independently. Provide a rating scale so students know what is expected of them.

7. Have students hand in their graphic organizer.

MODALITY PROVISIONS:

Process delivery:	oral	pictorial/labels	written	**kin**	**vis**
Product delivery:	oral	pictorial/labels	**written**	kin	vis

GROUPING ARRANGEMENT:

Process delivery:	total group	**small group**	individual
Product delivery:	total group	small group	**individual**

MATERIALS:

Type: frosting, graham crackers, fruit roll-ups

ASSESSMENT:

Type:	grades	checking system	**rating scale**	observ/anec	none

Teacher's Name: Lynn Ouellette Grade level: Grade 6

LESSON PLAN

DIMENSIONS OF CURRICULUM:

Content: Plate tectonics
Process: Creative thinking
Product: Class discussion
Research: None

LEARNING OBJECTIVE:

In their study of plate tectonics, students will brainstorm (brainwrite) what would happen if the United States had several plate boundaries located on it and present their ideas in a class discussion.

PLACEMENT IN UNIT:

Introductory Midway **Follow-up (Review for test)**

INSTRUCTIONAL STRATEGY:

Type: creative thinking ("brainstorm" graphic organizer)

INSTRUCTIONAL ACTIVITIES/THE TEACHER WILL:

1. Review plate tectonics in a class discussion. Remind students to refer to their notes.

   What is the plate tectonics theory? What is seafloor spreading? What is convection and how is it involved in seafloor spreading?

2. Show students a globe and discuss the location of plate boundaries on different continents including North America and in particular the United States.

3. Show "brainstorm" graphic organizer that was filled out on the SmartBoard recently.

4. Review how to fill out the "brainstorm" graphic organizer. Remind students that the goal is to come up with a variety of ideas whether they are silly or not.

5. Ask students to work in small groups to generate multiple ideas about what would happen if the United States had several plate boundaries located on it by using a "brainstorm" graphic organizer.

6. Discuss student responses in a whole class discussion.

MODALITY PROVISIONS:

Process delivery:	oral	pictorial/labels	**written**	kin	**vis**
Product delivery:	**oral**	pictorial/labels	written	kin	vis

GROUPING ARRANGEMENT:

Process delivery:	total group	**small group**	individual
Product delivery:	**total group**	small group	individual

MATERIALS:

Type: frosting, graham crackers, fruit roll-ups

ASSESSMENT:

Type:	grades	checking system	rating scale	observ/anec	**none**