

# Soil Searching

## LCM Informal Loop

<p><b>LCM Lesson Plan: <u>Soil Searching</u></b></p> <p><b>Standards:</b>          Science: A-7, B-1, Language Arts: B-3,          Cultural: B-1, B-3</p> <p><b>Science concept:</b>          Soil contains many different materials</p>	<p><b>Name:</b> Angie Taggart  <b>Grade Level:</b> 2nd Grade  <b>School:</b> Houghtaling Elementary School</p>	
<p><b>Gear- Up:</b>          *Have students brainstorm what they know about soil and record their ideas on the board in a concept bubble/web.          *Read the book(s): <u>Dirt: The Scoop on Soil</u> and/or <u>Dirt</u>.</p>	<p><b>Process Skills:</b></p> <p>Communication           Observation</p>	<p><b>Materials:</b></p> <p>-White Board          -Dry Erase Marker          -Book(s)  <u>Dirt: The Scoop on Soil</u>          By: Natalie M. Rosinsky          and/or <u>Dirt</u>. By: Steve Tomecek</p>
<p><b>Explore:</b>          In small groups, of three, students will go outside and dig up a soil sample from three different locations around the school. Students will have three baggies that will have labels on them. They can then record their name and location that they found their soil.</p>	<p>Observation           Collection of Data</p>	<p>-Garden shovel          -Plastic baggies</p>
<p><b>Generalize:</b>          -Why is the soil the same/different in each of the areas we collected from?          -Why do you think the soils contain different materials?          **Pair share</p>	<p>Observation           Collection of Data           Communication</p>	<p><b>Vocabulary</b></p> <p>Rough    Small          Smooth    Shiny          Fine    Dull          Gritty    Sharp          Large    Colors          Medium    Sticky          Dry/Wet    Sediment</p>
<p><b>Apply/Assess:</b>          Students will glue their soil samples with a glob of Elmer’s glue onto teacher generated worksheet. Wait for a day to dry. As a class create a soil word bank for students to choose descriptive words from. They will then write down the different materials that they find in each of their samples using the descriptive words from the soil word bank.</p>	<p>Observation           Collection of Data           Communication</p>	<p><b>Materials:</b></p> <p>-Teacher generated worksheet          -Pencil          -Markers/Crayons</p>
<p><b>Extensions:</b> *Students can use a three-circled Venn diagram to classify their soil samples: Gritty/Fine/Smooth etc.          *If garbage is found in soil sample students can write in their journal how they think it will effect the soil          *Homework: Students can gather soil from around their home and record observations to share with the class.          ***Dirt Dessert: Students can create a delicious dessert demonstrating the many different materials soil contains.</p>	<p>Observation           Collecting Data           Communication</p>	<p>***Dirt Dessert recipe on next page. . .</p>

\*\*Pair share: Students turn to their partner and share information about what they collected and observed.

# Dirt Dessert Recipe

## (Snackin' on Soil)

### Materials needed per eight snackers:

- \*2 Oreo cookies for each snacker
- \*4 cups milk
- \*2- 4oz. instant chocolate pudding
- \*1 Gummy worm per snacker, chocolate rock candy, marshmallows, chocolate covered raisins or any other soil looking sweets
- \*clear 6-8oz. clear cup and spoon  
(1 per snacker)
- \*1 gallon size sealable plastic bag
- \*mixing bowl and spoon

### Directions:

1. Have snackers wash hands before touching ingredients.
2. Give one snacker the sealable bag and Oreo cookies. Have them place cookies in bag, seal bag and then using their hands have them crush cookies into small pieces. Discuss how the cookies will represent rocks.
3. Have the snack makers prepare ingredients as follows:
  - \*In a bowl: Beat the milk into the instant pudding.
  - \*In each cup:
    - To represent soil, place a thin layer of the pudding at the bottom of each cup. In between each layer of soil add a layer of crushed cookies, chocolate covered raisins, marshmallows, chocolate rock candy, and the gummy worm throughout the layers. These candied items will represent rocks, fossils, and animals that they may find in their soil.
    - \*\*Chill the cups of "soil" and eat later!

ENJOY!

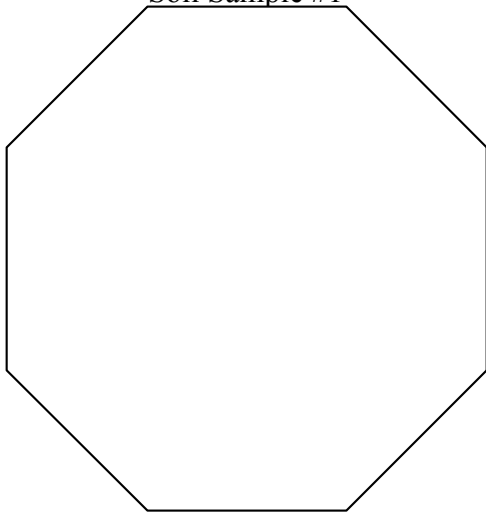
# Soil Sample Rubric

Question?	3	2	1
Does student demonstrate understanding of what is asked of them?	Student shows understanding by drawing all three soil samples and listing the different materials that were observed in the sample.	Student shows understanding by drawing only two of the three samples and listing some materials that were observed in the sample.	Student shows understanding by drawing one of the three soil samples and listing only a few materials that were observed in the sample.
Does student complete what is asked of them in lesson?	Student completes all of their work and one of the extensions listed on LCM.	Student completes all of their work but does not complete an extension.	Student completes some of their work and does not complete an extension.
Does the student participate in the activities?	Student participates in observing, data collecting and discussions.	Student participates in at least two of the activities: observing, data collecting and discussions.	Student participates in at least one of the activities: observing, data collecting and discussions.

Name \_\_\_\_\_ Date \_\_\_\_\_

In the circles below draw a picture of each of your three soil samples that you collected. Next list the different materials that you found in each soil sample.

Soil Sample #1



Materials in Soil Sample #1

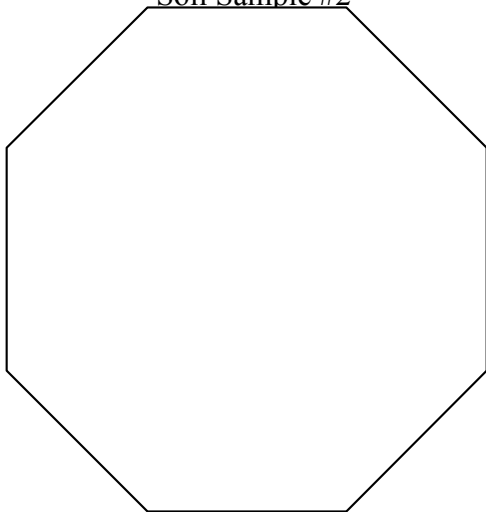
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Soil Sample #2



Materials in Soil Sample #2

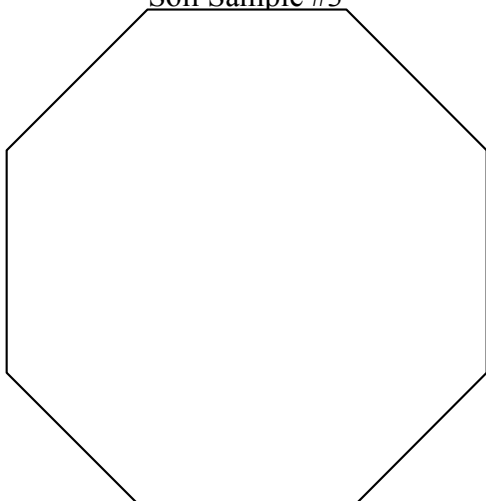
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Soil Sample #3



Materials in Soil Sample #3

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