

PEBBLES, SAND, & SILT: Using Rocks
Making Sand Sculptures and Bricks
(FOSS Teacher Guide)
2nd GRADE SCIENCE DOCENT

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Pebbles, Sand, and Silt FOSS Teacher Guide

- 1. Sand Sculptures: Investigation 3 (Using Rocks), Part 3—pgs 126-129**
- 2. Making Bricks: Investigation 3 (Using Rocks), Part 5—pgs 134-139**
- 3. “Center Instruction Card” pg 216**

Objective/California Standards for Science:

1. Review pages 114-115 (“Teaching Children About Using Rocks”) to familiarize yourself with the teacher’s goal in this lesson.
2. Students should know that rock, water, plants, and soil provide many resources, including food, fuel, and building materials, that humans use.
3. Students will gain an understanding of how rocks can be used as building materials through various experiments.
4. Students will follow oral instructions for a scientific investigation.

Unit Preparation (“GETTING READY”):

1. Read “GETTING READY” for each part BEFORE the day of the lab!!! (see page 127 and 135-136)
2. The sand matrix for the sand sculptures is to be made the night before the lab!
3. Clay soil needs to be dug up or made using soil and dry powdered clay.
4. All steps do not need to be included, such as step 2. Plan Assessment (pgs 127 and 135), step 11. Read *Science Resources*. (pg 136), step 10. Assess Progress: Notebook Sheet (pg 139). **(These are noted on the MASTER COPY.)**

5. Practice each demonstration or activity prior to the lesson so that you are familiar with everything that is going on.

Introduction (5 minutes):

1. Split the class into 2 groups.
2. Briefly explain that they will be learning about using “rocks” to build things. Each activity center has its own introduction.
3. Half will learn about **Sand Sculptures** for 20 minutes.
4. Half will learn about **Making Bricks** for 20 minutes.
5. Switch groups after 20 minutes.

Hands-On Activities (“GUIDING THE INVESTIGATION”) (40 minutes)

Activity Center One: “Part 3: Sand Sculptures” (pg 128-129)

1. Materials needed: See page 126
2. Not Needed: Assessment Sheet no. 1, *Anecdotal Notes* (**These are noted on the MASTER COPY.**)

Activity Center Two: “Part 5: Making Bricks” (pg 137-138)

1. Materials needed: See page 134
2. Not Needed: Science Notebook Sheets 12 or 13, *FOSS Science Resource* books
3. Do not complete step 2: Go to Brick-Making Site. (**These are noted on the MASTER COPY.**)
4. The bricks will be saved and used in the next science docent lesson to make a structure with mortar (sand matrix).

Conclusion: (“WRAPPING UP” section from each activity) (10 minutes)

1. Sand Sculptures (page 129)
2. Making Bricks (page 139)
3. There is no “Word Bank” or “Content Chart.” This information can be written on the teacher’s white board in class or gone over orally.