

## ***Lesson 12 - Grades 3-5 - Beyond Stone Walls Curricula***

### **Fossil Hunt (Two 45-minute lessons)**

Grade level: 3-4

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### **National Content Standard Alignment**

Science (NSTA):

- Content Standards A, C & D

English Language Arts (NCTE):

- Standards 7 & 12

### **Learner Background**

- Students should have a thorough understanding of what fossils are, where they can be found and why they are important. Prior lessons on fossils are recommended.

### **Student Learning Objective(s)**

- SWBAT understand the difficulties paleontologists face when reconstructing a fossil to form a coherent story.
- SWBAT reconstruct a popsicle stick fossil
- SWBAT understand that archeologist analyze fossils to give us clues about the past, which effect the present and future

### **Assessment**

- Formal – Students will complete an assignment in their journal, which will be revised by the teacher and returned with comments.

### **Materials/Resources**

- Primordial ooze (sand and dirt)
- 10 popsicle sticks for each student
- Markers, crayons, colored pencils
- Journals
- Pencils, pens
- Clipboards

## **Learning Activities (Day 1)**

### **Initiation**

(5 minutes) The teacher begins the lesson by describing the planned activities which will take place over the next few days.

### **Lesson Development**

1. (15 minutes) Teacher has students each take ten popsicle sticks. Students tape these popsicle sticks together so that they are lined up together, top to bottom, creating a palette to draw on. The students must now choose a “fossil” or other artifact to draw on the popsicle sticks.
2. (10 minutes) When the students are done drawing the picture on their popsicle sticks, they must make a similar drawing for their own records in their journals. Students should include an explanation of why they chose that particular “fossil” and why it would be found in the ground to be dug up by archeologists.

### **Closure**

(10 minutes) The teacher ends the class with a discussion about archeologists and the processes of their jobs. The class discusses ways that archeologists search for clues to the past, and how they are able to determine what they have found. The teacher will now take all the popsicle sticks, except for one of each student’s fossil, and put them in the box of Primordial Ooze and shake it up, simulating Earth processes. The teacher should explain that next class students will try to find one fossil.

## **Learning Activities (Day 2)**

### **Initiation**

(5 minutes) The teacher hands out the remaining popsicle sticks to the students. No student should receive his/her own popsicle stick. Teacher informs students that they are now archeologists, and are going to search for fossils in a section of Primordial Ooze that has been discovered.

### **Lesson Development**

1. (15 minutes) The teacher now dumps out the Primordial Ooze on the ground outside, in a pre-dug area (if possible) to simulate a real archeological site. Students are instructed to search through the Primordial Ooze to find the missing pieces to their fossil picture and put them together in some logical fashion. When the fifteen minutes are up, the students must leave the rest of the popsicle sticks that they have not found and go inside.

2. (5 minutes) Students try to piece together their popsicle sticks and determine what fossil they have found. They must record the picture to the best of their ability in their journals.

3. (10 minutes) When they are done, they will attempt to find the original owner of the fossil and compare what they found with what the person had originally created. Students must discuss why their pictures are different. If time permits, students may go back to the Ooze and search for more parts of the fossil.

### **Closure**

(10 minutes) Students will now write an entry in their journal describing their day, including how they tried to piece together their fossil and the problems that they encountered. Students should also connect their process to that of real life archeologists.