



**NATURAL HISTORY  
MUSEUM OF UTAH**

Rio Tinto Center | The University of Utah

# Observation Pops

<b>Field Trip</b>	<b>Enduring understanding:</b>  Each person can make observations that are valid and lead to new knowledge.	<b>Alignment to Utah Core Curriculum</b>
Grade Level: 1		<b>Objective 1 Generating Evidence:</b> Using the processes of scientific investigation.
Process Skills: <ul style="list-style-type: none"><li>• Communicating</li><li>• Inferring</li><li>• Observing</li><li>• Questioning</li></ul>		<b>Objective 2 Communicating Science:</b> Communicating effectively using science language and reasoning. <b>Objective 3 Knowing in Science:</b> Understanding the nature of science.

## Field Trip in a Flash

Students will use pictures of objects mounted on popsicle sticks to actively engage with the exhibits through conversations, observations, questions, and inferences.

## Before the Museum

### Do a Science Process Lesson

Do the “Igniting Inquiry” Lesson found at the Natural History Museum of Utah’s website. Other lessons that would support this field trip are: Facts and Inferences, Wonder Why, and You Are a Scientist. They can be found at [www.nhmu.utah.edu/lessonplans](http://www.nhmu.utah.edu/lessonplans)

### Select a Gallery or Galleries

Decide how you are going to divide your students for research. Will you have groups select one gallery to engage with? Will you randomly assign a gallery to engage with? Will the groups engage with one object in each of the galleries, or several objects spread throughout multiple galleries? Will the students select the objects they look for and discuss, will you select the objects, or will you use a prepared set of objects provided by the Museum?

Discuss the exhibits at the Museum- introduce their names and their content. The permanent exhibits are:

**First Peoples-** The story of Great Basin’s prehistoric peoples is told while putting visitors in the shoes of archaeologists who use science to interpret the past. Explore Median Village, a reconstruction of an actual archaeological dig site excavated in the 1960s in Sevier County, Utah. Stop in the Dry Caves Learning Lab to learn more about what makes Utah so spectacular for preserving archaeological evidence.

**Gems and Minerals-** Rough mineral forms are juxtaposed with elegant cut gemstones, all in brilliant colors. Peer in to see minerals that fluoresce and take in 12 vertical feet of minerals suspended before you.

**Lake-** The compelling narrative of the Great Salt Lake, a remnant of ancient Lake Bonneville is brought to life through hands-on interactives, sounds, smells, and a spectacular view of the Lake itself. Take a “walk around” this large terminal body of water in the midst of a vast inland desert. Get an up-close view of some of the lake’s smaller inhabitants.

**Land-** A journey through three distinct physiographic regions formed over millions of years, the Land showcases Utah’s Middle Rocky Mountains, Basin and Range, and Colorado Plateau. While navigating the switchbacks, touch real rock specimens and explore interactive exhibits on earthquakes, plate tectonics, erosion and much more. Be sure to venture out onto the outdoor terrace for an up-close look at the foothills of Utah’s Middle Rocky Mountain region.

**Life-**The web of life is illustrated in a series of exhibits exploring complexity from DNA to Ecosystems, with a focus on Utah’s extraordinary biological diversity. This exhibition is rich with images, sounds of the landscape, hands-on experiences, live animals, and research stories.

**Native Voices-** The traditions of Utah’s five native nations—Shoshone, Goshute, Paiute, Ute, and Navajo—are featured in this circular gallery nestled in the hillside at the top of the building. Designed in consultation with Utah’s Indian community, this exhibition depicts Native American art and culture and interprets the deep memory and contemporary presence of Utah’s indigenous people. Visit the Storytelling circle where you can listen to stories of origin and connection to the land.

**Past Worlds-** A sequence of snapshots in time spanning 500 million years depicts a range of Utah’s ancient environments and their changing life forms. Utah’s Late Cretaceous and Eocene are brought to life in displays that capture plant and animal diversity, sights, sounds and smells of the time. Participate in the Cleveland-Lloyd Dinosaur Quarry mystery by “casting your vote” on the theory you agree with most, be a paleontologist for a day in our dinosaur dig, and be a guest at an Ice Age dinner party. In this gallery there are over 30 skeletal reconstructions on display, including a Gryposaurus (duck-billed) dinosaur made of original fossil material, and the world’s only display of 14 Ceratopsian (horned) dinosaur skulls.

**Sky-** Weather, climate, astronomy, and the sun are interpreted in this gallery with its adjacent rooftop terrace. Check out the views of the Salt Lake Valley and learn about some of the Museum's "green building" features from the Sky terrace.

**Utah Futures-** This thought-provoking environment—the Museum's crystal ball—is a place to explore pressing contemporary issues with local and global implications for the future. You are encouraged to participate in an engaging interactive game where you can see the results of your everyday individual choices play out and learn more about how they might affect Utah on a broad scale.

Have students record on the flaps of their organizer, on their field trip papers or in their science journals the gallery or galleries they need to visit.

### **Introduce the Field Trip Plan**

**Explain** that you will be going to the Museum and that the students will be practicing being a scientist, just like they did during the pre-activity. They will have to observe specimens and artifacts, ask questions, make guesses/inferences and discuss ideas with a team. They are going to have special tools to prompt them- Museum popsicles. Show them how the popsicles and/or organizers work.

### **Prepare the Pops**

Once you have determined the area of study or galleries you want your students to focus on, you can make your Museum pops! These are images of objects from the Museum mounted on popsicle sticks. They have visual prompts (an eye, a nose, an ear, a question mark, etc.) and words (see, smell, wonder, etc) on the back to stimulate scientific discourse while at the Museum.

To select the images for your class look through the online database at [www.nhmu.utah.edu/collections/browse](http://www.nhmu.utah.edu/collections/browse) and select items on exhibit in the galleries. Do this as an individual or as a class. Select objects that seem the most interesting.

Or, you could select a group of specimens prepared by the Museum that feature the highlights of the entire Museum or of specific galleries. The highlights are found at the end of this lesson, you can prepare them with your class, so that you can use them back at school, or you can check out a set at the Museum. If you are interested in reserving a set of Museum Pops, you will need to notify us at least 48 hours in advance at [fieldtrips@umnh.utah.edu](mailto:fieldtrips@umnh.utah.edu).

If you want to use organizers to keep track of the images, you can make or have your students make, an organizer. The students can fill their organizer prior to the visit, or the chaperone can carry all of the images, and give them to the students as they are found and discussed.

### **Logistics**

Divide your students into groups in any way that seems to make sense for your class- it could be based on exhibit selection, peer choice, or teacher assignment.

Prepare your chaperones:

- communicate the purpose of the field trip to them
- provide them with a chaperone sheet with the names of the students in their groups
- make sure the chaperone has the set of Museum Pops for their group

### **At the Museum**

Make sure students are with their chaperones.

Determine a meeting time and space, and communicate that clearly to the students and chaperones.

Go off and explore the Museum. Be on the look out for the objects you are going to discuss, but in no way does this mean you cannot discuss other interesting things that you find along your way. When you find one of the objects, use the prompts on the back of the image to help facilitate discussion. If helpful, you can determine that students only get to share when they are holding the pop. Make sure everyone gets a chance to make observations, inferences, connections, and ask questions. Enjoy listening to each other, making guesses, and looking for details others missed.

### **After the Museum**

Have the students select one Museum pop to talk about. Give them time to share about the interesting things they observed, inferred, or questions they have regarding that object. You can do this in small groups or as a whole class. If you have enough pops, you have students take them home to share what they experienced with their family.