PART 1: Life Science

What are talons? **The large, sharp claws of birds of prey.**

Name a bird with talons: (Answers may vary and include: eagles, hawks, ospreys, kites, buzzards, harriers, falcons, vultures, & owls. Ask students the various bird of prey they wrote down.)

Where do Mountain Lions live? In **large territories with tree cover, boulders, caves, and rocky outcroppings.** They are found in North and South America including: Utah, Arizona, New Mexico, Idaho, Wyoming, Colorado, Washington, Oregon, California, South Dakota, Texas, and Florida.

What is the habitat for a Golden Eagle? In **larger territories with mountainous areas, rolling foothills, or deserts, since they like to hunt over open areas such as grasslands, savannas, and deserts.** They are found in North America, Europe, North Africa, and parts of Asia.

Is a Golden Eagle a raptor? **A raptor is a bird of prey, which has talons.** Yes.

What is the name for the group of animals that make seashells? **Molluscs.**

What are the three classes (groups) of that phylum? **Bivalves, Gastropods, & Cephalopods.**

Why are live coral so colorful? From the colored algae that live with the coral.

What do coral make their shelters out of? **Limestone (also known as calcium carbonate) and other materials from the ocean.**

*What is Utah’s state fish? **Bonneville Cutthroat Trout.**

How many species of fish on display are native to the Weber River drainage? **13, all of them.**

Match these terms with their meaning: 
(Carnivore ✗ Plant-Eater)
(Hint: Think about the kind of teeth each type of animal has.)
(Omnivore ✗ Meat-eater)
(Herbivore ✗ Plant & Meat eater)

PART 2: Cultural Science

Where did the ancient Puebloan people (also known as “Anasazi”) live? **Around the Four-Corner’s area, which includes parts of Utah, Arizona, New Mexico, and Colorado.**

What are “mano and metate”? **Prehistoric milling implements (tools) used to carve and grind various kinds of foods.**

Where did the Fremont peoples live? **Central and Northern Utah, as well as parts of Nevada, Colorado, Wyoming, and Idaho.**

What is one fact about pottery that you read about? (Answers may vary. Ask students the fact they wrote down.)

What sharp artifact was used for spears or arrows during hunting? **Arrowheads or arrows.**

What is a Petroglyph? A **picture or image carved into stone.**

Draw your own pictograph (or one from the exhibit) in the space provided: (Picture)

Describe or name another artifact and what it was used for: (Answers may vary. Ask students the artifact they wrote down.)
### PART 3: Physical Science

What kind of light causes minerals to glow or fluoresce? **Ultraviolet light.**

Are rocks minerals? **No. They may have minerals in them, but a rock is not necessarily pure mineral.**

What is the hardest mineral? **Diamond.** The least hard mineral? **Talc.**

Name the three types of rocks: **Igneous, Metamorphic, and Sedimentary.**

What is the difference between intrusive and extrusive igneous rocks? The way they are formed. **Intrusive rocks are formed below earth’s surface from magma, which cools much slower under the Earth’s surface. Extrusive rocks are also formed from magma, but at or above Earth’s surface. Because of this they usually cool very rapidly.**

What is petrified wood? **Wood that has turned into rock due to petrification, much like how fossils are made.**

What causes petrified wood to form in different colors? The color depends on the type of mineral dissolved into the water that seeped into the tree cells during the petrification process.

What is a paleontologist? A person who studies past life on the Earth through fossils.

Was the *Smilodon* a carnivore or herbivore? **Carnivore.**

What did Saber-tooth tigers mainly prey on? **Mastodons and Mammoths.**

Is an *Allosaurus* a carnivore or herbivore? How can you tell? **Carnivore. The Allosaurus has sharp teeth meant for ripping and tearing prey. (Ask students what other indicators they may have written down.)**

List one fact about the *Ichthyosaurus* that you read: (Answers may vary. Ask students the fact they wrote down.)

### PART 4: Outer Museum Displays

Can minerals grow? **Yes.**

What is meant by the “faces” of a crystal? **A “face” is one side of a crystal. Each face has an opposite and parallel face to it.**

Approximately how many species of Orchids are there? **30,000**

What substance in plants can cattle digest that humans can’t? **Cellulose**

What is a cool fact about primates (which can include the gorilla) that you read about? (Answers may vary. Ask students the fact they wrote down.)

Look into the kaleidoscope. What is a “kaleidoscope” made of? **Many mirrors that create many images.**

![Light ray diagram](Picture)

Draw a picture of how light reflects off a mirror: **(Picture)**

Read the “Pipes of Pan” sign. Can you hear the differences in pitch in the tubes? Why do some pipes have a higher pitch than others? **Each tube has a different length which allows only a certain wavelength to vibrate inside it.**

How can you tell how old a tree is? **By counting the number of rings that the tree has.**

Draw and label a sound wave in a pipe: **(Picture. Can include nodes, antinodes, wavelength type, or pitch.) Example: Transverse or Sinusoidal wave**

![Sound wave diagram](Picture)
**BONUS:** Around the museum are orange tiles called “FUN FACTS”. They mark cool extra facts about different exhibits. When you find one write it down! Can you find them all?

1. Bobcats (Outer)  
   *(Ask the students what information)*

2. Red Fox (Outer)  
   *they wrote down for each FUN FACT!)*

3. Striped Skunk (Outer)

4. Ermine (Outer)

5. Beaver (Outer)

6. White-tailed Jackrabbit (Outer)

7. Bonneville cutthroat trout (Life Science)

8. Hermit crabs (Life Science)

9. *Allosaurus* (Physical Science)

10. Fossil record (Physical Science)

11. Magnetite (Physical Science)

12. Topaz (Physical Science)

13. Feldspar (Physical Science)

14. Red Beryl (Physical Science)

*Questions with an asterisk indicate information found in a FUN FACT.*