#### Lesson Plan: Atlatl

Field Trip Program: Stories in Stone (Archaeology)

Location: Celebration Park

### Intended Grade(s): 4th

**Overview and Purpose:** Engage with an ancient hunting technology; understand how this technology impacted Native American hunting strategies, and how it relates to other hunting technologies.

| Idaho State Standards                                    | Next Generation Science Standards                     |
|--|---|
| 3-5.PE.2.1.1. Demonstrate knowledge of critical          | 3-PS2.A. Each force acts on one particular object     |
| cues and simple biomechanical principles to provide      | and has both strength and a direction. An object at   |
| feedback to self and others.                             | rest typically has multiple forces acting on it, but  |
|  | they add to give zero net force on the object. Forces |
|  | that do not sum to zero can cause changes in the      |
|  | object's speed or direction of motion.                |
| 3-5.PE.2.1.2. Transfer concepts to new skills/games      |   |
| (e.g., offensive and defensive strategies, center of     |   |
| gravity and stability, rhythm and timing, aim            |   |
| adjustment, placement, accuracy, scoring strategy).      |   |
| 3-5.PE.2.1.3. Identify ways to improve performance       |   |
| (e.g., appropriate, practice, learn techniques, positive |   |
| self-talk, visualize performance, positive specific      |   |
| feedback).   |   |
| 4.SS.3.1.1. Describe and analyze how American            |   |
| Indians and early settlers met their basic needs of      |   |
| food, shelter, and water.                                |   |

### **Key Concepts:**

- Students will learn how to use an atlatl and dart, how this technology was used by ancient cultures, and that it is still in use today in competitions and hunting seasons in some regions of the United States and the world.
- Students will understand how atlatl technology relates to other projectile weapon technologies, such as the bow and arrow, and the spear.
- Students will learn that safety is a key component of responsible use of hunting weapons.

#### **Enduring Understandings:**

- The atlatl is an ancient technology, predating the bow and arrow by thousands of years.
- Atlatl technology allowed ancient cultures to procure food and resources by hunting prey animals in their environments.
- Native American cultures created tools to help obtain things they needed to survive, such as shelter, fire, and food.
- Tool use and survival strategies changed over thousands of years, as cultures adapted to changing climate and resource availability.
- An atlatl dart remains at constant velocity until acted upon by other forces such as friction (contact with air), other matter (such as a straw bale, or the ground), or gravity.

## **Essential Questions:**

- Why are tools important to human survival?
- How did Native American cultures use tools, and how did tool use change over thousands of years?
- How can the availability of resources impact what kinds of tools are made and how they are used?
- How have safe hunting practices kept hunters alive throughout human history?

# Critical Vocabulary: These are terms that students should hear during the lesson.

| Atlatl and Dart   | Potential Energy | Fletching      | Lever     |
|-------------------|------------------|----------------|-----------|
| Mammoth           | Acceleration     | Kinetic Energy | Weapon    |
| Bow and Arrow     | Force            | Pleistocene    | Safety    |
| Projectile Weapon | Megafauna        | Hunting        | Gathering |
| Inertia           | Projectile Point | Prey           |           |

| Legend   |  |
|--|--|
| Standards that have been previously used are in plain type |  |
| New proposed standards are bolded                          |  |
| Standards whose language has changed are red               |  |