



Nature-Watch Activity Kit

Archaeology Adventure

(Nature Watch Kit #104)

Kit Contents

| <u>Item:</u> | <u>Qty</u> |
|------------------------------|------------|
| Arrowheads | 25 |
| Necklace Cords | 25 |
| Dig Miscellaneous | 1 set |
| Beads | 2.5 oz. |
| Bag of Bones | 1 |
| Bag of Shells | 1 |
| Digging Screen | 1 |
| Dig Pots (1 small + 1 large) | 1 set |
| Instructor Manual | 1 |

Additional Items Needed:

Shovel
Digging Cups
Large Bins or Boxes

Next Generation Science Standards Alignment

K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

K-ESS3-1. Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.

2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly.

3-LS2-1. Construct an argument that some animals form groups that help members survive.

3-LS4-2. Use evidence to provide an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

MS-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

HS-LS2-8. Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.

**See Back for
STEM Extensions**

This page includes the Next Generation Science Standards (NGSS) mapping for this kit and Science, Technology, Engineering, and Math (STEM) extensions (on back) to use in adapting and extending this activity to other subject areas.

This Nature Watch Activity Kit contains an Instructor Manual and materials to implement the curriculum. The kit was designed to be used with adult supervision only. Unsupervised use is not recommended.



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STEM Extensions

Science

- Simulate the spread of infectious diseases, which contributed to the demise of many Native American populations. In a group, one person will be designated as being sick. This person should be given a sheet of stickers, which will represent the disease agent. Have everyone walk around the room, neither avoiding the sick person nor trying to get near him. The sick person should put a sticker on the arm of a classmate whenever he gets close enough to do so. That classmate is now infected. After 60 seconds, stop and count how many people got infected. Play four more rounds, giving a sheet of stickers to one newly infected person each round. Record how many people get sick each time and add up the numbers at the end to see how one person can spread an infectious disease to so many more people.
- What could you learn from a midden composed of today's garbage? Save your garbage for a week – just the packaging, not food or other things that will rot – and bury it in a bucket of dirt. Trade buckets with a classmate, do a dig on the bucket, and describe what you can infer about the person's lifestyle based on the "remains" in the "midden".
- There is a movement to find and eat wild plants in cities, called *urban foraging*. The idea stems from the history of past hunter-gatherer populations, specifically the gatherer part. Explore online to find out what kinds of plants people find, where they find them, how they prepare and cook them, and if perhaps there are some in your area.

Technology

- Currently, bison (buffalo) are considered "near endangered" on the Great Plains after a great reduction in their population. Go online to find out how GPS collars are being used to help with conservation of the species.
- There are some interactive archaeology digs that can be found online and followed through video, photos, and digital interaction. Choose one and immerse yourself in the dig, then present its findings and some background about the site to your classmates. Share some thoughts about the life of an archaeologist, too, based on what you see.

Engineering

- The first Native Americans used whatever they could find around them to make their houses, clothing, and tools. Go outside and look around for natural materials you could use. What can you imagine making with just the materials you see there? Assume that you can use fire and water to help you, too. Create a catalog with the various items you could make using the items found around you.
- Explore online some of the engineering feats achieved by early Native Americans. Their ideas are still being used even in the present day! Some examples you can look into are the canals built by Hohokam Indians, rock V-dams built by Native Americans in what is now New York State, and the ways that Native Americans built their homes.

Math

- Use a map to determine a route that the first Native Americans could have used to come from modern-day Russia, over the Bering Strait, to the modern-day USA. Take a look at the map's scale. If they started in the Altai region of Russia (where Russia, China, Mongolia, and Kazakhstan meet), how far did they travel to end up in what is now Alaska?
- Invent a shell-money system like the kind mentioned in the activity kit. You can use shells or other objects as money. Set prices for buying and selling with these objects and set up a shop for classmates to "buy" goods from you at the set prices.
- Make and illustrate a timeline of the events described in the activity kit. You will need to look up some dates, and feel free to add other events to the timeline.