

# Archaeology Summer Camp



## Lesson 2: What is stratigraphy?



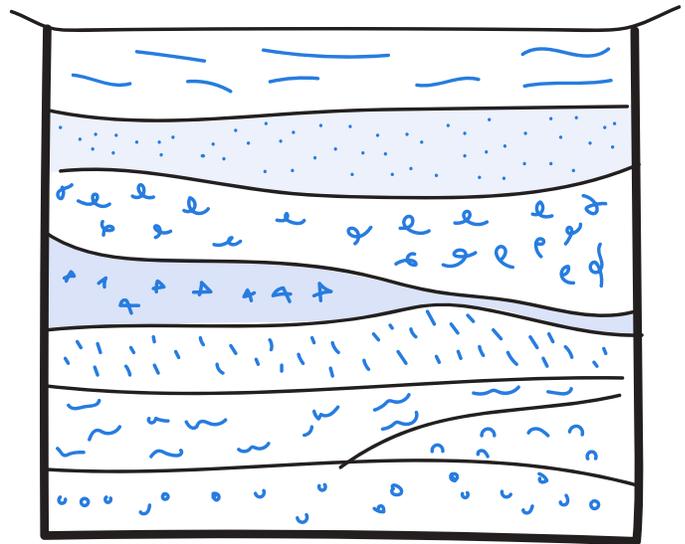
Now that you learned what archaeology is and how archaeologists work, let's learn a little bit more about how archaeologists gather specific information out of the objects they find.

**Stratigraphy** is the study of different types of materials that have formed layers in the ground over time.

These materials are called **strata** and it can be soil, dirt, rocks and anything that covered the surface of the ground over time.

As different materials pile up on earth's surface, different layers form. Along with these natural materials, objects left behind by humans are also buried within time. When an archaeologist finds these objects during excavations, they can then use stratification to find out more about those objects as well as about the whole site itself and the people that lived there.

Strata is used by archaeologists in order to date objects they find in the ground and to create a sequence of events in certain archaeological sites.



### Basic Laws of Stratigraphy

- Law of superposition: The oldest layer is always the bottom layer, and the youngest layer is always the one at the top, unless the site was disrupted.
- Sediment or materials will form as horizontal layers.
- If something cuts across an existing rock, this one is younger than the rock it cut across.
- Fragments or pieces found within a host rock are older than the host rock.

#### ► In archaeology:

All of the objects found in one strata or layer will be approximately the same age as the layer they are found in and the material in that layer. This helps archaeologists know how old objects are.

Objects in the bottom layer will be older than objects found in the top layer. This is the reason why it is important to protect sites. If a site is destroyed or excavated without an archaeologist exploring it first, all of this information will be lost.

The job of an archaeologist is to use the strata to put things in chronological order or the order in which things happened. By doing this we can put together the past and not only see how humans lived back then but who was here first and how we changed over time.

## Activity: Stratigraphy in a jar

Create a stratigraphy model in a jar in order to view different layers and study the objects buried.

### Materials:

- A clear plastic or glass jar with a lid.
- Bag of rice
- Bag of beans
- Bag of chia seeds
- Bag of sugar
- Bag of lentils
- Small items like colorful beads or buttons, these will be the archaeological objects.
- Spoon

### ► Steps (parent/guardian and participant):

- Decide the order you want the ingredients to go in the jar.
- One by one start pouring the ingredients using the spoon to smooth the surface before you pour the next ingredient. Be careful not to mix ingredients so each one can sit on top of the other horizontally. Some mixing will occur, but this is fine as long as you can tell each layer apart. Use the spoon to spread the layers in the jar. You can repeat ingredients if you want.
- As you pour different layers, decide where you want your objects to go and add them to the desired layers before pouring the next layer. Position the objects at the edges of the jar so you can see them from the outside. As you continue to pour layers in the jar, the objects will start to get buried deeper and deeper. Do this until the jar is filled to the top. Each layer represents a different type of material that has piled up over time on the earth's surface.
- Cover the jar with the lid to secure the ingredients.
- Try to answer questions about the objects; based on the location of the objects, which one is the oldest? Which one is the newest? Are there any that might be the same age? Which layers are older and which ones are younger?

