

Innovation Project

Archaeologists use the archaeological process to reconstruct and understand the artifacts they have unearthed. Whether they are excavating a site or studying materials in a laboratory, it takes people

working together with technology to find the clues needed to understand how past generations lived, learned, and celebrated.

In the UNEARTHED™ season, your team's challenge is to identify a problem faced by archaeologists and propose a solution that can help.

Start here . . .

Identify and research a problem faced by archaeologists.

Use the Project Sparks page to guide your selection of an archaeological problem.

Conduct research to explore the existing solutions to that problem. What has already been tried? What challenges remain? Try to use a variety of sources to support your work.

You may want to create something new, apply existing technology from another field of study, or improve on an existing solution; that's what innovation is all about.

Develop a plan to improve your ideas. It may be necessary to change or update parts of your solution as you learn more from testing your ideas or sharing them with others.



Think about . . .

Review the rubrics and the judging flowchart.

At the event, you will have a limited amount of time to share how you developed your solution, including what you learned in research and testing. The rubrics help your team understand what to focus on when presenting to the judges. They will be interested in the progress you and your team have made this season, even if the work is still underway.

Create a prototype model or drawing that represents your innovative solution to help explain it to others and to the judges. Keep in mind that whether your problem is big or small, the impact of your solution could be huge.

Before the event . . .

Prepare a live presentation to communicate your solution.

Think about how your team will summarize your work. The judges will ask questions when they want to know more and will provide the team with feedback. Your presentation should explain the problem you selected, the research you did, and how you developed your solution.

To help the judges understand your team's journey, highlight how you used Core Values to make progress and solve challenges along the way. Finish by sharing how your innovative solution would help archaeologists piece together the stories of the past.

Make sure your whole team is involved in sharing your progress. Check out our event preparation video found in the season resources to learn more about the judging session.

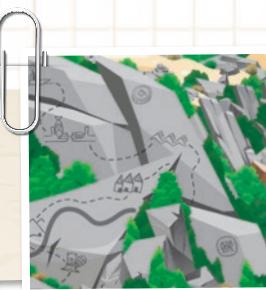
Project Sparks

Archaeological Process

Identify Site

During an excursion, the team discovers an ancient map leading them to believe more artifacts will be found nearby.

How will the archaeology team identify where additional artifacts are located?



Survey & Map

Members of the excavation team want to explore nearby caves and account for changes in the landscape that occurred over time.

How can the team use technology to create a modern-day map of the cave and full site?



Excavate

Once excavation begins, the team starts to find artifacts related to everyday life. Some are sturdy and large, like millstones used to process grains, and others are smaller, like coins and beads.

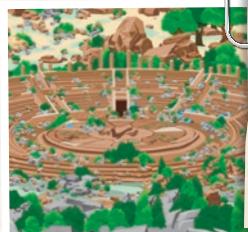
What tools can the team use to get these items out of the ground without damaging or losing any of them?



Reconstruct & Restore

The archaeologists have evidence that the people who once lived here were very connected to water and all it would provide. Parts of sculptures found near a forum depict animals from the water, but locating all the pieces and restoring them will be a significant challenge.

How can the team improve the restoration process?



Share & Publish

What solutions exist to solve the problems described in the field notes? Has your team encountered a different problem in the field of archaeology?

An artifact was discovered that has left everyone on the team wanting to know more, but not every mystery can be solved by one team on its own.

How can archaeologists work with teams in other careers to solve the mysteries together?



Challenge Story



Careers and Technology

Career
Resources



Archaeologist

Archaeologists are storytellers of the past. Archaeologists do lots of different jobs to help people learn about the past. They may do research, excavate or dig up treasures from underground, study in a lab, or manage collections of ancient artifacts.



Lab Technician

Lab technicians help organize the items that archaeologists find. They carefully clean and measure the objects, and sometimes they put broken pieces back together like a puzzle. Microscopes, cameras, and 3D printers are some of the equipment that may be used in the lab.



Anthropologist

Anthropologists are interested in how people lived in the past. They work closely with archaeologists to study human history and how people have changed over time. They study human-made artifacts and use clues from the site to interpret how the objects were used long ago.



Site Manager

The site manager makes sure everything runs smoothly at the dig site. They help keep the people and supplies organized so the team can work efficiently. If something exciting happens, the site manager might be the first person called.



Conservator

A conservator is an expert in fixing and protecting artifacts so they can be studied for a long time. When artifacts are found by archaeologists, they might be dirty, damaged, or in multiple pieces. Conservators may have to work quickly because some artifacts will fall apart if they are not treated carefully.



Geologist

Geologists help at dig sites because they are experts in rocks and soil. They can use technology to figure out how old the rocks are to help understand how the site has changed over time.



Team Journey



UNEARTHED™



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