



Into the Field: Archaeology Field School Abroad

Teaching Tip

Archaeology: Field Bag

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During this activity, your students will learn about the Chavin de Huantar archaeology site in Peru. They will also learn how archaeologists use a coordinate system, referencing a single point, to get an exact location for the material excavated. Detailed maps and notes are also produced for each excavation site to document the findings.



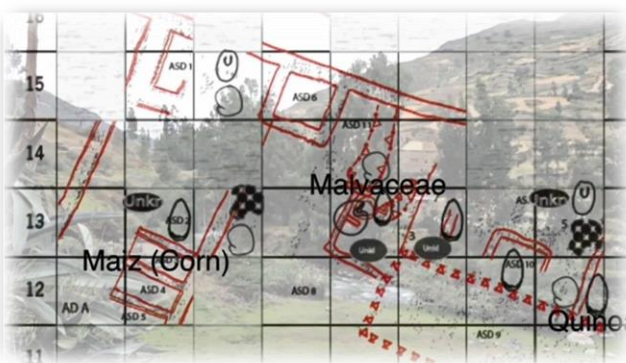
Still from Film

Then your students will perform an interesting hands-on activity in which they will use measurements and a coordinate system to document a staged excavation site. The students will also learn how to reference known substances to identify unknown substances.

Getting Started:

Introduce the activity by viewing the following [video](#) ([photos](#)) about the Chavin de Huantar archaeology site in Peru. The video clip describes the process involved in documenting an archaeology site, including how archaeologists use a coordinate system, referencing a single point, to get an exact location for the material excavated. The materials are cataloged, detailed maps are drawn, and notes are written to document the findings.

Optional: [Entire video](#)



Next, your students will perform an interesting hands-on activity in which they will use measurements and a coordinate system to document a staged excavation site. The students will also learn how to reference known substances to identify unknown substances.



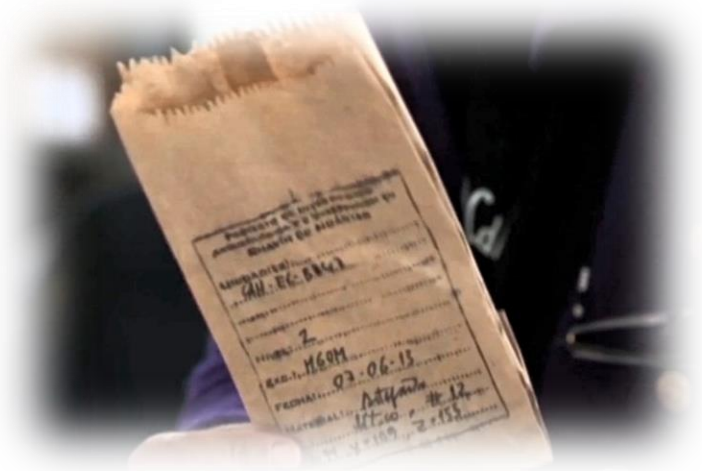
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Process:

- Materials (for each group of 3):
 - Paper lunch bags (multiple)
 - Pencil
 - Tape measure/meter stick
 - String with plumb bob
 - Small plates or containers
 - Spoons
 - Gym or large room
 - Elevation platforms
 - Boxes
 - Chairs
 - Tables
 - Etc.
 - Knowns/Unknowns
 - White flour
 - Wheat flour
 - Salt
 - Baking soda
 - Granular sugar
 - Powdered sugar
 - Pepper
 - Etc.
- Setting up the excavation sites:
 - Multiple excavation plots will need to be constructed by the teacher. Depending on the size of each plot, approximately 2 groups could work at each. Each plot should be large enough to allow for group movement and measurements.
 - The unknowns should be placed at various locations (levels) throughout each excavation plot. A numeric or alphabetical reference should be assigned to each unknow. An answer key should be completed for each plot. Example excavation sites are shown on the following page.



Note: Your materials may be different. The materials listed to the left are for the example described below.

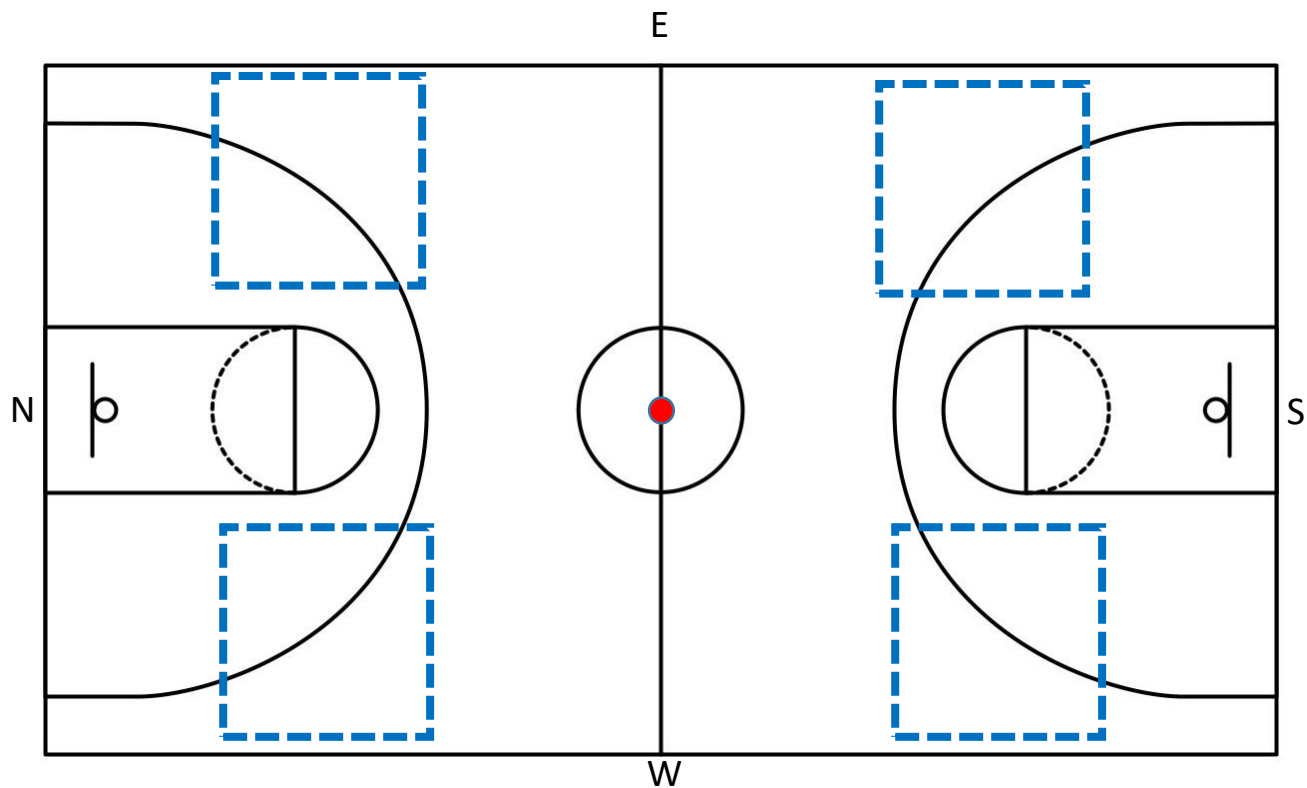




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Excavation site with 4 plots (common reference point for measurements is shown in red)



Example plot in classroom (unknowns located at distinct levels above floor)

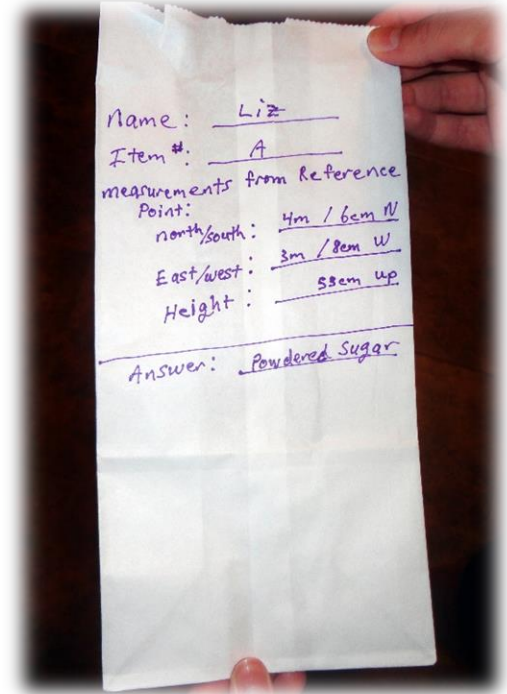


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- Gathering the data:
 - A separate paper bag should be used for each unknown.
 - The assigned reference number or letter should be recorded on the bag.
 - Measurements (from the reference point to the unknown) should be recorded on the bag.
 - Identify cardinal directions.
 - Use a plumb bob lowered from the unknowns to establish cardinal measurements from the reference point.
 - Measurements should include height above the floor (the video shows depth below the surface).



Taking it Further:

- Identifying the unknowns (3 possible solutions below depending on age):
 - Compare and contrast physical characteristics of unknowns in collected bags to known substances at the front of the room.
 - Calculate the density ($D = m/v$) of each substance and compare to known densities.
 - Test how unknowns react to different substances like water and vinegar.
 - Draw a detailed/scaled map.
 - Etc.
- Determine unknowns and record results on bags.

What to expect: The students should learn the importance of record keeping and accuracy when taking measurements. The students should also understand that mapping a 3-dimensional space is difficult, but it is essential to document the location of items at an excavation site.

Into the Field: Archaeology Field School Abroad. Director Kate Simerly, Produced by Matthew Sayre & Nicholas Wieland, USD, 2015, <https://sdpb.pbslearningmedia.org/resource/47fe9f17-8c9a-4632-abe6-10dcab937ca7/into-the-field-archaeology-field-school-abroad/>



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