GRIDDING AN ARCHAEOLOGICAL SITE

Develop a site grid like an archaeologist to map locations of artifacts

OBJECTIVES

At the end of the lesson, students will be able to:

- Establish a grid system over an archaeological site
- Determine the locations of artifacts within each grid-unit
- Construct a hypothesis concerning the distribution of artifacts in the grid

MATERIALS

- Rulers or other measuring devices
- Pencils
- Copies of the Lakeside Site Artifact Scatter
- Copies of the Lakeside Site Artifact Location Record

GRADE: 5

Subjects: Social Studies, Math

Standards:

- CCSS.MATH.CONTENT.5.G.A.1
- CCSS.ELA-LITERACY.W.5.1

Skills: spatial analysis, identification, recordation, hypothesizing

Duration: two 30-45 minute lessons

Class size: 25

VOCABULARY

Cartesian Coordinate System: a method of plotting locations and distance in space (on a two-dimensional plane, like a map, using a horizonal x axis and a vertical y axis).

Artifact: any portable object made, modified, or used by humans. “The town museum has a collection of local artifacts on display.”

Archaeology: the study of people in the past using material remains (physical objects and other clues that have been preserved and discovered). “The people excavating the old house site have training in archaeology.”

Datum point: a point on the site from which all measurements are taken. “The feature is located 5 meters north of the local datum point.”

Flake: a piece of stone removed from a larger piece of stone. Making stone tools leaves behind a number of flakes.

Post-hole: an impression left in the soil where a wooden post once stood. “After removing the fence post, the farmer filled in the post-hole with dirt.”

Grid-unit: a designated square within a site grid.

Sherd: a fragment of a larger ceramic (clay) object. A clay pot will shatter or break into sherds.

BACKGROUND

Once a site has been excavated, it is gone forever. Because sites are destroyed during excavation, archaeologists are required to record the context of all material located on the site. One way to ensure the preservation of the location of items uncovered is by recording all materials excavated. The first step in this process is establishing a site grid. A site datum point is marked at a fixed point of elevation near the site. Two perpendicular axes intersecting at the site datum point are then drawn and a rectangular grid is superimposed over the entire site. Each grid square is marked on a map and then on the site. In this process, each grid is assigned its own number within the entire grid.

During excavations the locations of recovered objects are recorded in the appropriate grid square. When the archaeologist returns to the lab to interpret the objects excavated, the maps and data recorded can be used to make inferences about past events and human activities that took place on the site.

PROCEDURES

Day 1
Have students assume the role of an archaeologist who has just finished surveying a potential site. During the surface survey a number of artifacts were identified. They need to be recorded for future study.

Ask: How might the archaeologist accurately record any material identified during the survey?

1. Hand out printed copies of the resource sheet entitled: “Lakeside Site Artifact Scatter.” This is the site surveyed by the archaeologist.
2. Have students locate the site datum point, map key, and north arrow
3. Have students use their rulers and pencils to draw a grid system over the site map using the scale 1 square inch. Model the procedure with students.
4. Label the site map. Starting from the datum point, label the bottom of the site map 1-7 and up the left side of the site map A-H.

Day 2
1. Hand out copies of the “Lakeside Artifact Location Record.” Have students record the grid-unit designation and numbers of the types of artifact within that grid-unit in the chart provided.
2. Ask the students:
    - How could you account for the distribution of ceramic sherds in the site?
    - Explain the locations of other data recorded on the site map.
    - What do the data tell us about the activities conducted on site?

ASSESSMENT

Students will hand in their “Site Artifact Scatter” grids and “Artifact Location Record” charts. Check answer key against student’s chart. You can expect variations in numbers where artifacts lay on the border of two grid-units.

WRAPPING UP

As a whole group, have students discuss the following prompts:

- Why is a datum important?
- Why is knowing the precise location of an artifact important?
- How does the grid system help future archaeologists who are studying the site years after it has been excavated?
- Why is the grid square instead of round or another shape?

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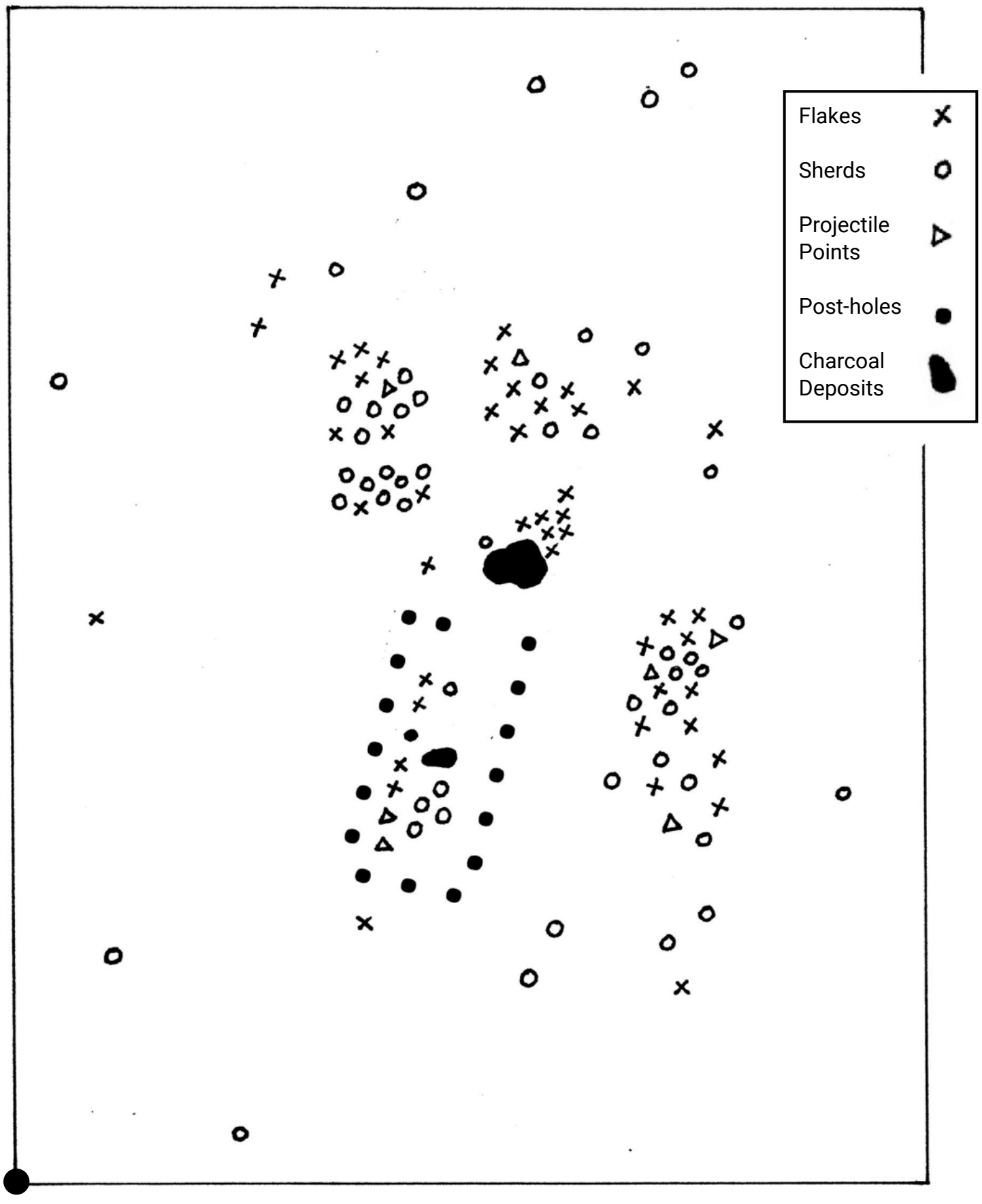
LAKESIDE SITE ARTIFACT SCATTER

NAME



LAKESIDE SITE ARTIFACT LOCATION RECORD

NAME _____

GRID-UNIT	FLAKES	SHERDS	PROJECTILE POINTS	POST-HOLES	CHARCOAL
1A	0	0	0	0	0
2A	0	1	0	0	0

LAKESIDE SITE ARTIFACT LOCATION RECORD

GRID-UNIT	FLAKES	SHERDS	PROJECTILE POINTS	POST-HOLES	CHARCOAL

ANSWER KEY

GRID-UNIT	FLAKES	SHERDS	PROJECTILE POINTS	POST-HOLES	CHARCOAL
1A	0	0	0	0	0
2A	0	1	0	0	0
3A	0	0	0	0	0
4A	0	0	0	0	0
5A	0	0	0	0	0
6A	0	0	0	0	0
7A	0	0	0	0	0
1B	0	1	0	0	0
2B	0	0	0	0	0
3B	1	0	0	0	0
4B	0	1	0	1	0
5B	0	1	0	0	0
6B	1	2	0	0	0
7B	0	0	0	0	0
1C	0	0	0	0	0
2C	0	0	0	0	0
3C	2	0	2	4	0
4C	0	4	0	4	1
5C	1	2	0	0	0
6C	2	2	1	0	0
7C	0	1	0	0	0
1D	1	0	0	0	0
2D	0	0	0	0	0
3D	0	0	0	2	0
4D	2	1	0	6	0
5D	3	1	1	0	0
6D	5	6	1	0	0
7D	0	0	0	0	0

ANSWER KEY

GRID-UNIT	FLAKES	SHERDS	PROJECTILE POINTS	POST-HOLES	CHARCOAL
1E	0	0	0	0	0
2E	0	0	0	0	0
3E	1	6	0	0	0
4E	3	2	0	0	1
5E	6	0	0	0	1
6E	0	1	0	0	0
7E	0	0	0	0	0
1F	0	1	0	0	0
2F	1	0	0	0	0
3F	6	5	1	0	0
4F	5	1	1	0	0
5F	4	5	0	0	0
6F	1	0	0	0	0
7F	0	0	0	0	0
1G	0	0	0	0	0
2G	0	0	0	0	0
3G	1	1	0	0	0
4G	0	1	0	0	0
5G	0	0	0	0	0
6G	0	0	0	0	0
7G	0	0	0	0	0
1H	0	0	0	0	0
2H	0	0	0	0	0
3H	0	0	0	0	0
4H	0	0	0	0	0
5H	0	2	0	0	0
6H	0	1	0	0	0
7H	0	0	0	0	0