I: Mapping an Archaeological Site and Surface Survey

- **Objectives:** As students apply a grid to an archaeological site they will be using a map and the Cartesian coordinate system. They will also be determining the location and number of artefacts within each unit. Students will be asked to make hypotheses concerning the distribution of these artefacts found at the “Homestead site”. There are two versions of this activity – version 1 is for younger students and version 2 may be more suited to older students or a smaller class where there is more help from a teacher.

As well, there is an “alternate” option that will follow these same procedures but will relate to a Precontact site – “Evergreen site”. This will be a more challenging project as there will be artefacts and features that require more critical thinking. (Note: The black line master copies for this activity are BLM09Alt-Evergreen_Site_Artefact_Scatter and BLM10Alt-Evergreen_Site_Artefact_Location_Record.)

- **Materials:**
  
  **Version 1:** One copy each of the BLM09-Homestead_Site_Artefact_Scatter and the BLM10-Homestead_Site_Artefact_Location_Record, ruler, pencil, and eraser.

  **Version 2:** Large nails or tent pegs to create a grid, string to complete the grid, a copy of the BLM09-Homestead_Site_Artefact_Scatter map for each group, a copy of the BLM11-Artefact_Record_Form for each group, graph and note paper for each group.

- **Vocabulary:** datum point, grid unit, feature, artefact

To teach the alternate “Evergreen” Precontact site option, be sure to pre-teach the following terms: projectile point, flake, tipi ring.

- **Background Information:** Once a site has been excavated, it can never be put properly back together where it was found. Therefore, as archaeologists are excavating, they are careful to take detailed notes and measurements of everything they find at the site in order to be able to reconstruct the site, virtually (on paper and computer). One of the things they record is the location of the artefacts found. To do this, a grid system is used to divide the site into equal portions, usually 1 x 1 metre squares. The position, or corner, at which this grid starts, is referred to as the datum point – a measuring point for the entire site (usually 0N 0E, which means zero metres north, zero metres east). Each square is then assigned its own number depending on how many metres north and how many metres east it is in reference to the datum point. Each artefact found within a particular square unit is recorded as being from that unit. Once the archaeologist returns to the laboratory he or she can make interpretations based on the location of the artefacts about human activity and events in the past.

- **Procedures:**
  
  **Version 1:** Allow the students to role play that they are archaeologists who are excavating at a site. There are a number of artefacts (and features/activity areas) found and they need to record them for future research.
Ask your students how they think an archaeologist would accurately record artefacts that they found in the field?

Have your students work on the BLM09-Homestead_Site_Artefact_Scatter. As a class, locate the datum point and discuss the importance of having this reference point. Also point out the north arrow and the map key. *Note: This sheet has two pages - the first is the site map and the second is a grid overlay. These can be made into overheads to superimpose the grid onto the site, if you wish.* Either use the grid overlay provided or else have the students create a grid over the entire site – the site should measure eight metres (8 m) north and six metres (6 m) east. Each square will represent a 1 m x 1 m unit. You can even create a scale bar to indicate this measurement relationship (the form has been designed so that 2 cm = 1 m on a standard, letter-sized piece of paper). Label each unit square according to how many metres north and how many metres east they are. For example, a square could be 5 m north and 4 m east of the datum point and you would write it as 5N 4E. Then have your students fill out the BLM10-Homestead_Site_Artefact_Location_Record, marking down how many artefacts of each type are located within each unit. *Note: If an artefact sits within more than one grid unit, the unit with the majority of the artefact can record it.*

**Version 2:** In advance, teachers need to set up the “site” somewhere on the school grounds. The size of your site will probably depend on how many students you have and how much time you would like to spend on this activity. Choose a location where there is usually foot traffic or another activity that occurs on a regular basis. Use a grid of 1 m x 1 m squares with the pegs to mark the corners. The area can include foot paths, vegetation, garbage cans, and benches. Indicate the location of the datum point. Take a look at the procedures for version 1 to get an idea about making a site map, the datum point, and numbering units.

Divide students into groups of two or three. Have the students conduct their surface survey by drawing a site map on graph paper that includes: the grid, unit numbers, datum point, north arrow, key, any features (human-made objects that cannot be moved, i.e. park bench or pathway), and vegetation. As the students examine each unit, have them record any surface artefacts they find. Do not remove them from the site, but simply record their location on the site map and issue each artefact a number (place a dot on the map and its corresponding number. Students can even develop their own “key”). Then record information about the artefact on the BLM11-Artefact_Record_Form.

Back in the laboratory (i.e. “classroom”), archaeologists will then write a report on their findings. The final report should include the following sections: (See the BLM12-Avocational_Archaeologist_Permit_Report as an example of the type of information that non-professional archaeologists in Saskatchewan have to include in their report. This is provincial government regulation).

Introduction - a few sentences briefly describing the location of the site, its name, and what was found (features and artefacts).
Methods - a paragraph that mentions how many square metres were surveyed, how each artefact was located, recorded, and mapped. None of the artefacts were collected.

Results - describe the units and what types of features and vegetation were mapped. Discuss the artefacts (amount, what they were, and describe each).

Interpretation - artefacts they found and the features that were recorded. Why would these artefacts still be here? Could there have been different artefacts here at one time? And why are they not seen anymore?

Conclusions - list any observations/conclusions/hypotheses and provide a short summary of their report.

➢ Closure:

Version 1: Ask the students how they would account for the distribution of the different types of artefacts? For example, what could they infer from the location of the ceramic fragments across the site – what might this indicate about human activity? What does the circle of stones represent? What are the charcoal deposits? What does each activity area represent? (Can they locate the fire pit, garbage area, house foundation, kitchen, recreation area, anything else? Now ask your students to explain the importance of establishing a grid at an archaeological site. Ask them what would happen if some of the artefacts were missing. Would they have come to the same conclusions? Then ask the students what would happen if they were excavating at a real archaeological site and some of the artefacts had been stolen. How would this affect an archaeologist’s interpretation of the site? Explain that it is important to help protect archaeological and historic sites to prevent things from being damaged or stolen. Vandalism and pot hunting can destroy the archaeological record. These acts will limit and alter our understanding of how people lived in the past.

Version 2: Discuss with students the types of artefacts they found at the site. Ask them what would happen if some of the artefacts were missing. Would they have come to the same conclusions? Then ask the students what would happen if they were excavating at a real archaeological site and some of the artefacts had been stolen. How would this affect an archaeologist’s interpretation of the site? Explain that it is important to help protect archaeological and historic sites to prevent things from being damaged or stolen. Vandalism and pot hunting can destroy the archaeological record. These acts will limit and alter our understanding of how people lived in the past.

➢ Other Options: Version 2: You can also have the students input their information into a computer database. They may want to include charts or graphs in their report.