Romans on the Don Worksheet 1 – Archaeology – Questions and Answers Pack

In preparation for Worksheet 1 download the worksheet (WORKSHEET 1.doc) and print one copy for each pupil. Either write summaries of each question on a white board or download to interactive white board. As suggestions are made by pupils they can be written on the board and, if preferred, the best answer or key word can be entered by the pupils on their sheet. You will also need to download two pictures, Worksheet 1 Q4 Geophysical plan.jpg and Worksheet 1 Q9 Crop Marks.jpg. These can be printed or used on the interactive whiteboard.

Q1. Ask who knows what an archaeologist does?

Archaeologists are like detectives, looking for clues to find out about, and tell the stories of, what happened in the past. Archaeologists dig in the ground to find clues but also use surveying to identify where to look and radiocarbon and tree ring dating to tell how old things are.

Q2. Ask what skills does an archaeologist need?

An archaeologist needs patience, investigative skills, drawing skills, and the ability to dig carefully.

Q3. Ask how things get buried?

By soil creation, soil movement, deliberate burial, and building.

Q4. Ask how do archaeologists know where to look?

It is impossible to excavate everywhere but clues for where to dig can come from:

- historic records and old maps (which might mention or show ancient sites subsequently built upon or ploughed over),
- geophysical surveys (see box Q5),
- crop marks (see box below),
- fieldwalking (where archaeologists walk ploughed fields and record any finds lying on the surface),
- trial trenching (digging small trenches to see if there is a pattern of finds),
- chance finds (artefacts or features discovered by chance such as during building, quarrying or whilst out walking).
Q5. Geophysical survey.

This is the method used on Time Team and referred to as “Geophys”. There are various “Geophys” methods. One measures where the soil is most magnetic. All soil has tiny magnetic bits in it and when it’s moved (e.g. by digging) the magnetic bits group together. People walk round an area with a machine that measures the amount of magnetism and draws a plan showing magnetic responses. The most magnetic bits are shown by dark lines. These may form patterns on the plan that depict buried archaeological sites.

Practical experience of lessons show children often suggest metal detecting as a way of finding sites and “Geophys.” can be cross referenced to this.

Q5. Show a picture of the geophysical plan ([Worksheet 1 Q4 Geophysical plan.jpg]). It has a series of dark lines of high magnetism that are probably old ditches that have been filled in. The pattern is typical of an Iron Age/Romano-British field system. Ask pupils where they would dig if they were archaeologists?

They should dig on the dark lines. These are where the ditches are thought to be. Artefacts found in the ditches can tell us how old the ditches are.

Q6-9. Crop marks – these are visible from, and are photographed from, the air. They can be simply shadows from raised ground, colour differences from different soils, or crop growth differences – see illustration on page 25.

Q6. Ask what buried things can make crops grow shorter?

How well plants grow can be affected by soil depth, and by how wet the soil is. Where part of the field crosses an old wall, buried just below the surface, the crops will not grow as well (shorter, paler).

Q7. Ask what buried things can make crops grow taller?

Where part of a field crosses an old ditch that has been filled in the crops will grow better (taller, greener). Where crops in a field can be seen to grow in different ways they are called crop marks.

Q8. Ask what can an archaeologist do to see crop marks better?

Archaeologists can see the differences by looking at them from the air, taking photographs which show the marks up better. These are known as aerial photographs.

As a practical example it is possible to get some pupils to sit behind some others who are standing. The sitting pupils are the shorter crops but cannot be seen because the taller ones hide them.
Q9. On the aerial photograph (Worksheet 1 Q9 Crop Marks.jpg) point out the crop marks – ask what they are?

The picture is of Rossington and shows marks from ditches of ancient field systems in the bottom green field and a droveway (marked by parallel lines) and fields in the central green field.

Ask where would you dig if you were an archaeologist?

Archaeologists would dig trenches over the crop marks because they think they would find field ditches which might contain dating evidence such as pottery.

They might also excavate at the end of the dark lines. These are the ends of ditches and often Romano-British people buried objects such as pots and metalwork in these locations. This was a way of saying the field belonged to them before property deeds were used.
Worksheet 1 Q9. Picture of crop marks of Iron Age and Romano-British fields in Doncaster