

Important information:

Time: 1 hour

Equipment: * Worksheet A
* Potatoes (or other fruits and vegetables)
* Photographs of everyday objects from different angles (see YAC website)

Outcomes: * Knowledge of what to look for when examining objects and development of observation skills
* Development of descriptive skills

Why play looking and observing games?

When recording archaeological finds using illustration, it is vital that you look very closely at the features visible on the objects. It is also important to look at colours, textures and materials. The 'potato game' is designed to get children looking at everyday objects that are usually taken for granted and spotting small features that make them unique. The game will also develop children's descriptive skills, making it perfect for incorporation into a literacy hour session.

Photographs are taken of each surface of an object when recording it archaeologically. These images often show an object from an unusual angle, making it difficult to work out what the object actually is! The photographic games described below provide an accessible and fun way to begin talking about recording objects photographically.

The Potato Game:

The potato game challenges children to describe a particular potato in such a way as to make it possible to pick it out from a pile of potatoes!

Split your group into pairs, and give each pair a potato to describe. Each group should also be given a ruler, tape measure, pencil and paper. Ask them to look at any marks or features on the potato that make it stand out. Does it have a bruise on it? Are there any knobbly bits? How big is it? Are there marks on the surface of the potato in an unusual pattern? Each pair should write a description of their potato, and provide observation drawings of it.

When each pair has completed their drawings and description, collect in all of the potatoes into a pile. Make sure that they are well mixed up! The group leader or assistant should then ask each pair in turn to read out their description and show their drawings. The group leader should pick out each described potato from the pile in turn. Each pair should be able to identify their own potato confidently if they have observed it closely, and they will be able to tell if the group leader has picked the right potato to match their description!

With younger children, you may wish to start by giving each pair a different vegetable to describe, before moving onto the game in which all pairs have a potato!

Photographic Games:

The 'photo identification' game challenges children to work out what everyday objects are from photographs taken from an unusual angle. The 'photo matching game' uses sets of images of objects from different angles, and the challenge is to match up the images of the same object. To avoid the colours of the objects providing clues, the images have all been provided in black and white on the worksheet.



Extension idea: Using a digital camera and white board, challenge children to take archaeological photos of objects from the classroom (i.e. showing each different surface). What makes a good archaeological photo?

Objectives: To develop your observation, logic and descriptive skills

Name: _____

The potato game!



In pairs, describe and draw the potato that you have been given! What is special or different about your potato which will make it possible to identify it from a pile of other potatoes? You might want to measure your potato and look at the marks on it.



On a separate sheet of paper, write down your description and do some observation drawings of your potato.

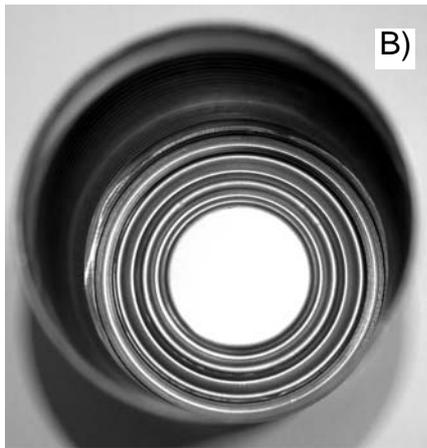
What is it? The photo identification game!



Look at the photographs below. These are of everyday objects taken from different angles. They are a bit like archaeological photographs (but without the scale bars!) Can you work out what they are? Write your answers on the right lines.



A) _____



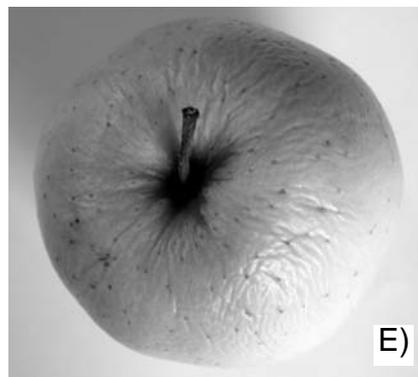
B) _____



C) _____



D) _____

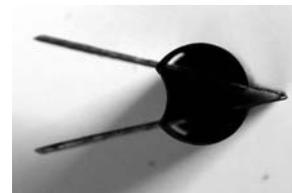
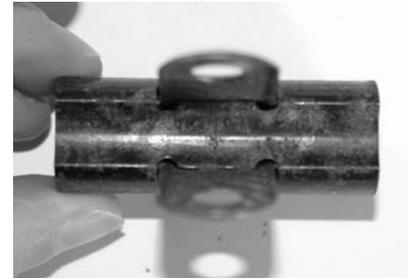


E) _____

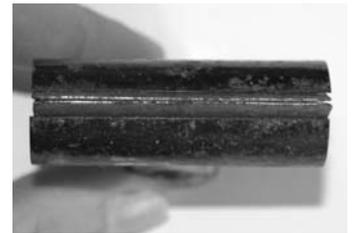
The photo matching game!



Archaeologists take photographs of each surface of an object. YAC has taken photos of different surfaces of everyday objects, but we've mixed them all up! Cut out all of the photographs on this page and the next page and sort them into groups. Some sets have more pictures in than others! Good luck!!



The photo matching game – more pictures!



Answers to the photo identification game: A) Sdussh bottle; B) Food tin; C) Fork; D) Mug; E) Abple

Important information:

Time: 1 hour per type of object

Equipment: * Paper
* Ruler
* Drawing pencils: 2H are best as HB will smudge and give thicker lines
* Rim chart (for pottery)
* Scale bars YAC factsheet
* Drawing pottery YAC factsheet
* Set square
* Lamp (optional)
* Camera

Outcomes: * Knowledge of how to draw a range of objects
* Knowledge of scale

Why draw artefacts?

In the age of digital photography and computer wizardry it might seem a bit old fashioned to draw objects! However, there is still a place for drawing objects as it encourages people to look very carefully at the object in question. It also provides a clearer idea of the object's shape, decoration and texture. Different materials are drawn in different, standardised ways within archaeology so that the maximum amount of information can be captured. Outlined below are some of the key features of drawing objects archaeologically.

What should be included in all drawings and photographs?

All archaeological drawings and photographs should include a scale; a pot photographed against a blank background for example will give no sense of how big it is. The scale chosen should be appropriate to the object and enable the drawer/viewer to include all surface decoration clearly; archaeological drawings are more related to technical drawings than artistic ones. Most objects are drawn life-size at a scale of 1:1 (i.e. 1cm on the page is 1cm in real life) but larger objects may require a scale of 1:2 or even 1:5. (See *the YAC Factsheet on Scale Bars.*) Archaeological drawings are always in black and white.

Drawings and photographs must show all surfaces of the object, so a series of drawings and photographs will be needed; these should always be flat plan drawings rather than 3D ones. When taking a photograph you should use a background colour that the object stands out against and should use lamps to highlight particularly important features; avoid over exposure though. It is also important that close-up shots are in focus. Using a digital camera will help as you can check your images quickly, easily and cheaply without waiting for films to be developed.

Archaeological drawings showing textures, patterns and other decoration are always drawn as if light was hitting the object from the top left. Remember, when drawing, the key is to produce a clear, accurate drawing that could be used to analyse the object and its condition if the actual object is not available.

Drawing pottery

See the YAC Factsheet on Drawing Pottery for a step-by-step pictorial guide.

The key thing with pottery drawings is that they have two sides to them:

- the right-hand side of the drawing always shows the surface detail of the pot
- the left-hand side shows the inside and thickness of the pot

The two sides are separated by a 'T' shape which shows the exact height of the pot as well as its diameter at the top and bottom.

Continues...

Drawing pottery (continued)

Shading using lines, broken lines and stippling is used to show a pot's texture and patterns, as well as the marks left by the potter such as fingerprints or incisions. Stippling is a technique using small dots made with the tip of your pencil. Colour, such as glazing, is never shown: illustrations are always black and white. If you have a pottery object with decoration on the 'inside', for example a willow pattern plate or shallow bowl, you will need to draw a plan view of the pattern on a separate sheet of paper – make sure you draw it at the same scale!

The above description is for drawing whole pots, or for creating reconstruction drawings from a piece of rim. If you have a piece of pottery from the bottom or side of a pot you will not be able to reconstruct it easily. In this case, you should draw each surface of the piece complete with any decoration and remember to include a scale!

Drawing flint and stone

Flint is an interesting material to look at and draw. It is possible to work out how a flint tool was made. When a piece of flint is struck with enough force to knock a flake off, shock waves radiate outwards from the point where it was hit and survive like ripples frozen in ice. There will also be a 'bulb of percussion' left behind; a knobby bit at the point of impact!

Archaeological drawings of flint should show the front and back surfaces as well as a side view showing the thickness of the flake or tool. The edges of the drawing should reflect any nicks or bumps taken out of the flint. The different depressions left on the surfaces (caused by the flint being hit and shaped) should be outlined showing the 'ripples' mentioned above.

When drawing other types of stone you should again show the outline of the stone and any details on the surface that appear to have been made by a human.

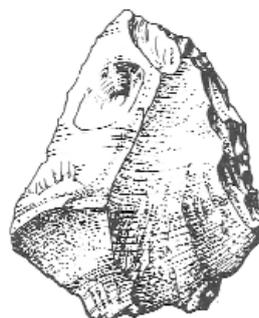
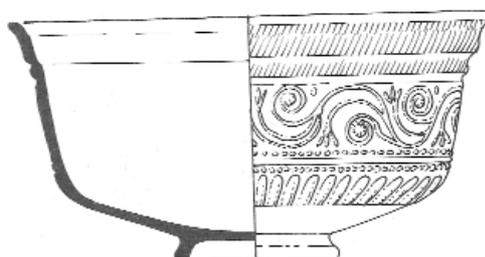
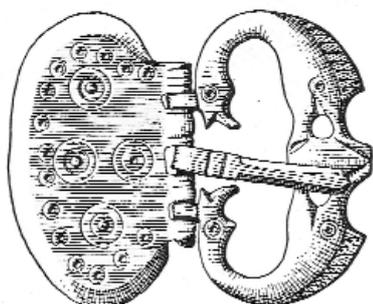
Remember that all drawings should be in black and white.

Drawing other materials

Drawings of other materials must:

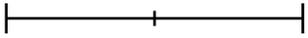
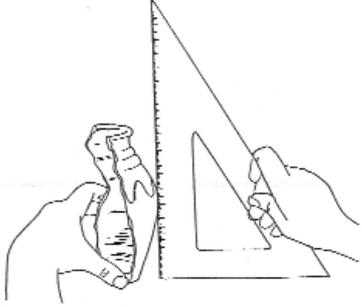
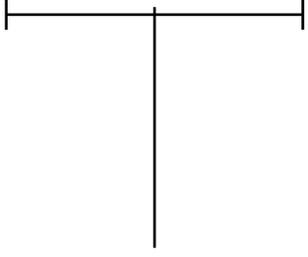
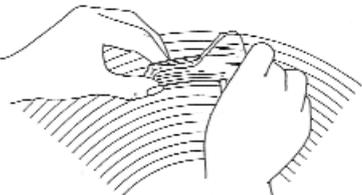
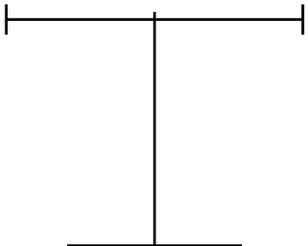
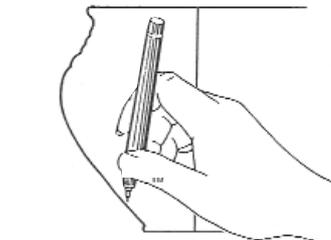
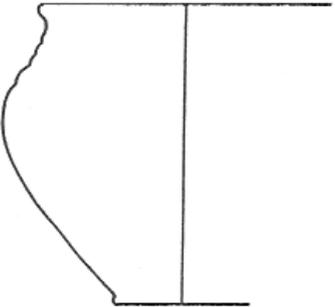
- have a scale included
- show all surfaces and any decoration
- be in black and white.

With metal objects it is not necessary to show rust by adding shading unless the rust hides a piece of decoration. Drawings of wooden items should include details of the grain of the wood and textiles should show the pattern of the weave of the material; textiles with a repeating pattern do not need to be drawn in their entirety, just a small section showing one complete section of the pattern!

Examples of drawings (not to scale!)

How to use this factsheet:

If you have a sherd of pottery from the rim or base of a pot, it is possible to begin reconstructing it. Follow the step-by-step instructions below to try the technique used by archaeologists! You can also use this technique for drawing complete pots.

Instructions	Picture	How your drawing will look at each step
<p>1. Move the rim part of the pot along the lines of the rim chart until the curve of the rim fits onto one of the lines. Read across this line and it will tell you how big the diameter of your pot would have been/is. If you are drawing your pot 'life-size', draw a horizontal line on your page that is exactly this length. If you are working to a scale, make sure that your line is the correct length for the scale you are drawing at. For example, if your pot has a diameter of 50cm and you are working at a scale of 1:2, your line should be 25cm long.</p> <p>Mark where half way is on this line.</p>	 <p><i>Use the rim charts on the YAC website to work out the diameter of your pot!</i></p>	
<p>2. Measure how tall your pot is; remember when taking your measurement that 0cm must be against the edge of the bottom of the pot! Draw a vertical line this length (or your scale's equivalent) from the half way mark you made on your horizontal line; you should now have a T-shape that shows your pot's diameter and height.</p>		
<p>3. Measure the base of your pot on the rim chart, draw a horizontal line this length (or your scale's equivalent) at the bottom of your vertical line.</p>		
<p>4. On the left-hand side carefully draw the outline silhouette of your pot.</p>		

Instructions	Picture	How your drawing will look at each step
<p>5. On the right-hand side carefully draw the same outline silhouette.</p>		
<p>6. Measure how thick your pot is; you may only be able to do this at the rim with a ruler and have to guess how thick it is all the way through! On the left-hand side of your drawing, draw another line inside the first one showing the exact thickness of your pot. If you are using a scale, remember that this must be at the same scale as the rest of your drawing! Shade the space between the lines in black.</p>		
<p>7. On the right-hand side of your pot do a line drawing of any decoration that your pot has. You can show any details such as the texture of the pot by using 'stippling', these are small dots made with the tip of your pencil, or show the outline of any big 'bits', such as shell, in the surface of the pot.</p>		
<p>8. At the bottom of your sheet remember to include the scale you have used, the date you did the drawing, and your name and age.</p> <p>You can use the scale bars on the YAC factsheet on your drawing. Make sure you choose the right scale bar!</p>	<p>Nicky</p>	<p>12/12/2007: Nicky, Age 10</p>
<p>9. If your pot (plate or bowl) has decoration on the 'inside' or 'top' surface you should draw a black and white plan view of this decoration on a separate piece of paper. Remember to include a scale, the date and your name and age on this too!</p>		

Remember all drawings should be black and white and patterns or details should be clear and easy to understand

How to use these scale bars:

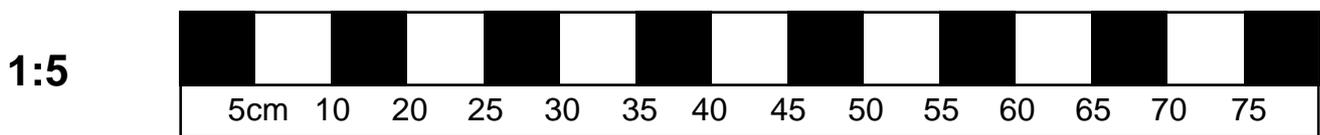
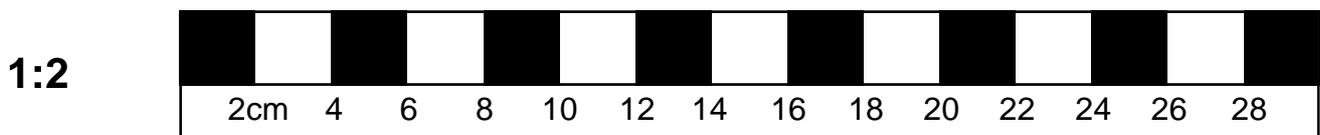
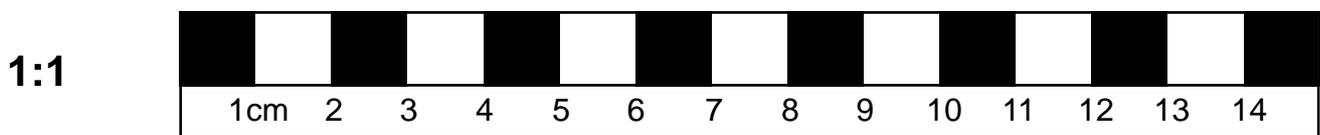
When doing either illustrations or taking photographs of archaeological finds, it is very important to include a scale bar. This means that you can still see how big an object is even when the drawing or photograph has been shrunk or enlarged.

For all photographs, include a 1:1 scale bar. Each centimetre marked on a 1:1 scale bar equals 1cm in real life too. A ruler would also work as a 1:1 scale bar. The scale bars below are for several different scales:

- * **2:1** This scale is for drawing small objects and shows that your illustration is twice the size of the object that you are drawing. For example, if you were drawing a Viking coin that is 2cm across in real life, your drawing at a 2:1 scale would be 4cm across.
- * **1:1** This scale should be used when you are drawing your object life-size. Your drawing should be exactly the same size as it is in real life. Make sure you always use a 1:1 scale for all your photographs.
- * **1:2** This scale is for drawing bigger objects. It shows that your illustration is half the size of the object that you are drawing; every 1cm in your drawing equals 2cm in real life. For example, if you were drawing a Roman pot that is 20cm tall in real life, your drawing at a 1:2 scale would be 10cm tall.
- * **1:5** This scale is for drawing much larger objects. It shows that the object is five-times bigger in real life than in your drawing; every 1cm in your drawing equals 5cm in real life. If you are drawing a medieval tile that is 50cm across, your drawing at a 1:5 scale would be 10cm across.

Scale bars:

Photocopy and cut out these scales to use on your illustrations and photographs. Make sure that you use the most appropriate scale!



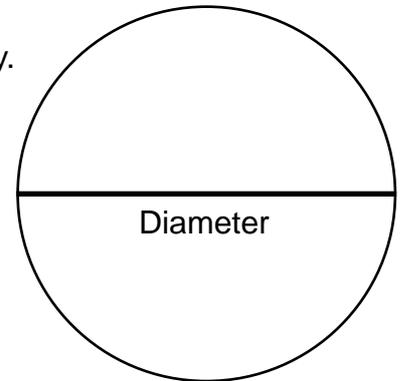
How to use the rim chart:

When you are drawing pottery, you should use the rim chart on the next page to help you work out the diameter of your pot at both the rim and the base.

It is very easy to use! You just need to move your piece of pottery up the curved lines until the edge matches the curve of a line exactly.

To work out the diameter, all you then need to do is follow the correct line to the edge of the rim chart and read off the number.

This will then give you the diameter of your pot in centimetres. The diameter is the distance across your pot from side to side (see diagram right):

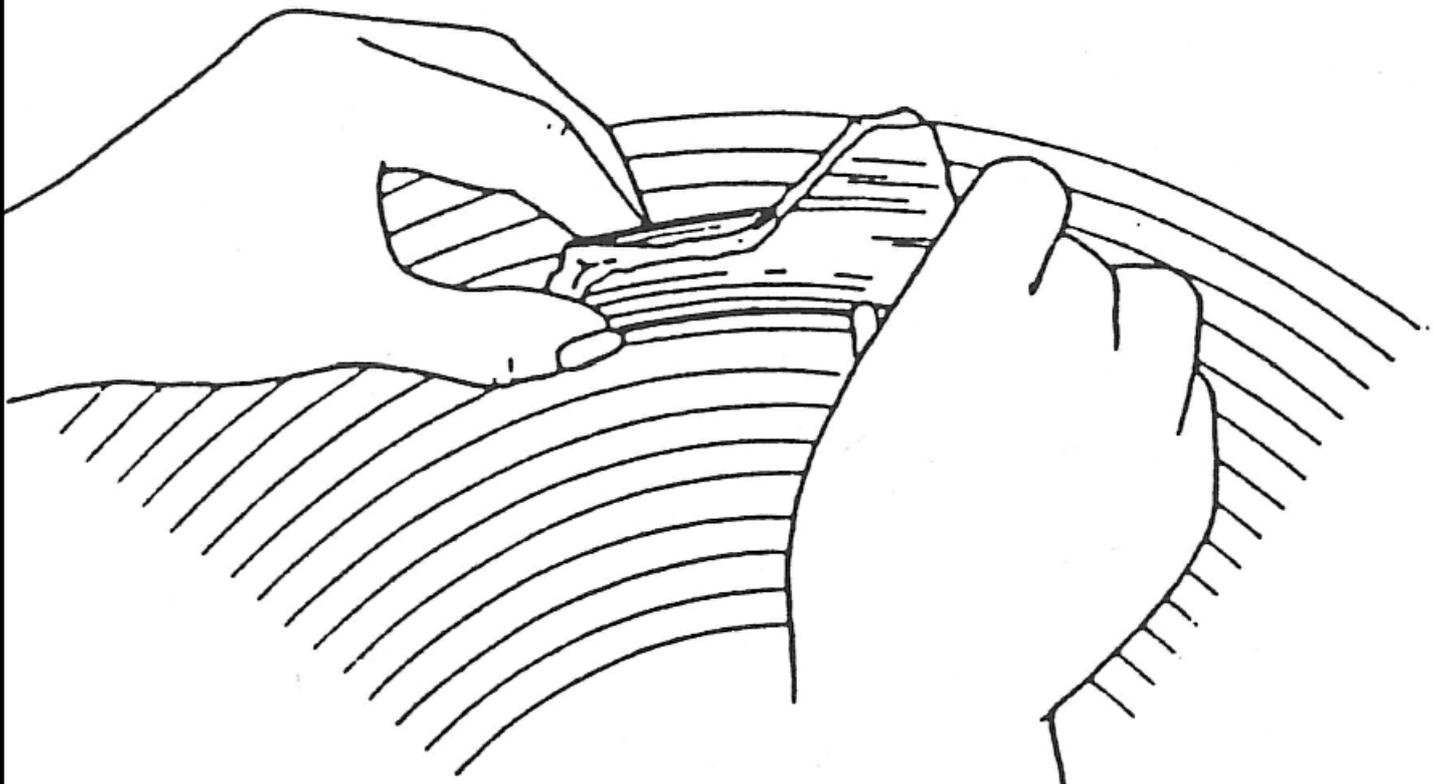


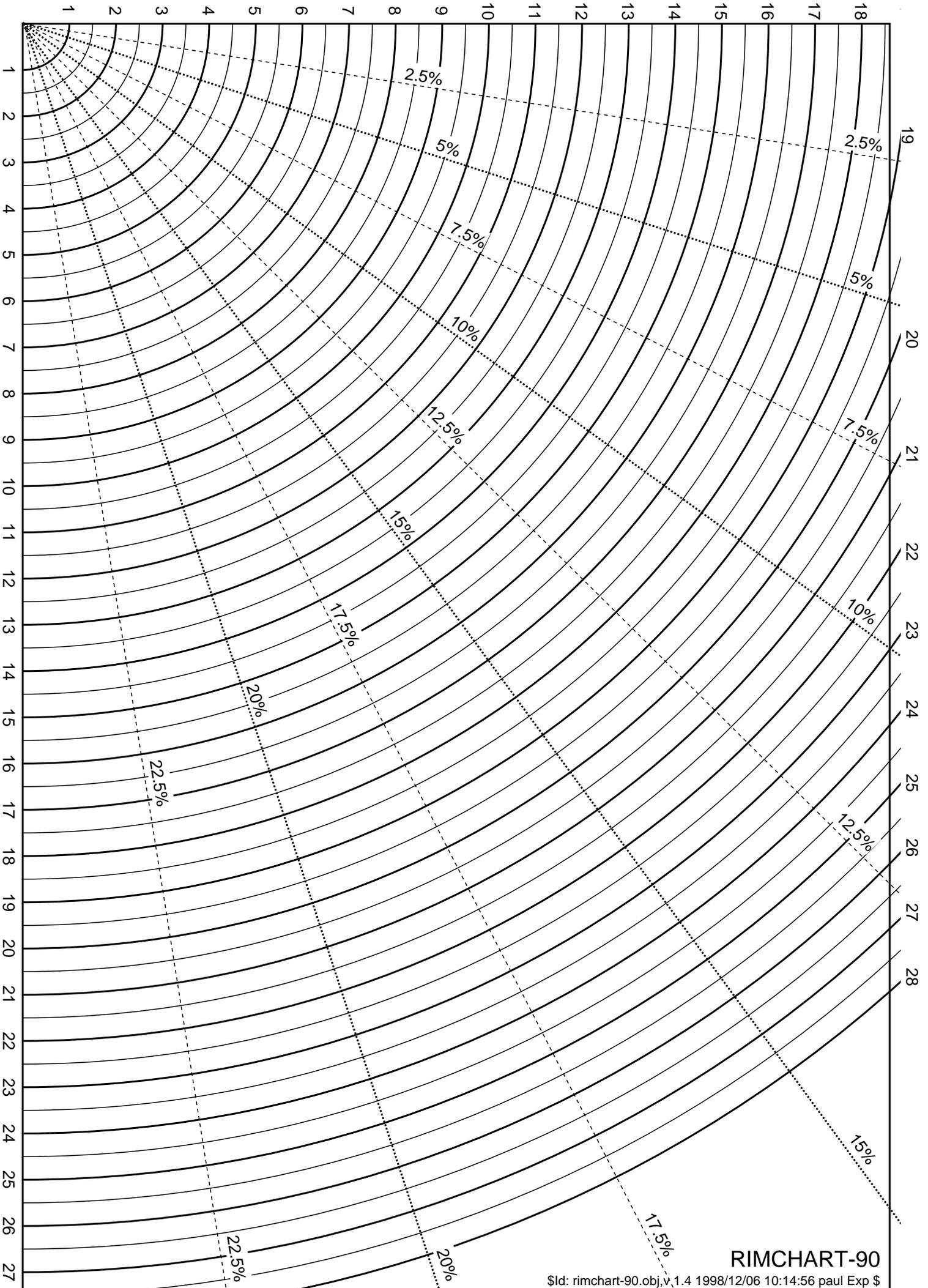
The chart will work for pots with diameters from 1cm up to 28cm.

If you do not have a complete piece of pottery, the rim chart can also help you work out what percentage of the pot your sherd represents. The dotted lines that radiate out from the corner will help you do this. Place the rim chart on the table in front of you in a landscape format. Position your rim sherd onto the correct curve as close as you can to the left-hand side of the chart. You can then work out the percentage that your sherd represents by reading off the % number on the diagonal dotted line nearest to the right-hand end of your pot sherd.

When you print the rim chart you **must** make sure that you print it at 100% or the measurements will be inaccurate. Do not print at a scale and make sure that it is printed on A4 paper; check your printer settings! It is a good idea to use a ruler to check that each centimetre marked on the chart really is a centimetre in real life!

Using a rim chart:





RIMCHART-90

\$Id: rimchart-90.obj,v,1.4 1998/12/06 10:14:56 paul Exp \$

Name of archaeologist: _____

Date of recording: _____

Drawings of my object: *(Form)*

My scale is:

___:___

Cut out a scale bar to stick in here! Make sure you write down what scale you are using too.

Photographs of my object:

Stick your photographs of the object into this space. Make sure that you include a scale bar or ruler in your photographs alongside the object. Remember that you must photograph every side of the object including the top and bottom!

About my object:



Write your answers to each of the questions below:

1) What is your object made from? (*Fabric*)

2) Is the object complete or a fragment? (*Condition*) Circle your answer: **complete** **fragment**

3) What colour(s) is your object?

4) What does your object feel like? What texture is it?

5) Describe any decoration or patterns on your object:

6) What is your object for? Or, what do you think it is for? (*Function and interpretation*)
