

Name: _____

Date: _____

STONE CIRCLES: ANCIENT MYSTERIES

A new stone circle has been found in Wales. As a group, your challenge is to compare this new archaeological site to the famous Stonehenge and decide:

- a) Which circle took longer and/ or more people to build; and
- b) Why it was built in the shape of a circle.



BACKGROUND INFORMATION

As far back as 4000 years ago, standing stones, often in the form of a circle, began to be built around the British Isles. At least 900 of them still exist, though many have been destroyed. The most famous, is Stonehenge.

A lot of claims have been made for the purpose of these circles, ranging from UFO landing pads to observatories for a highly evolved class of astronomer priests. In reality, they probably served as multi-purpose gathering places. Questions about how and why they were built are still debated today.

PART ONE: SKETCHING THE CIRCLES

Archaeologists often have to sketch the area that they are excavating, in order to maintain records and see new patterns. With your group, sketch Stonehenge and the Wales circles. Make sure to use a compass to make the circles as accurate as possible.

Calculations:

STONEHENGE:

Circumference: 105.0 m

Diameter: _____

Radius: _____

C =

WALES:

Circumference: _____

Diameter: _____

Radius: 16.5 m

C =

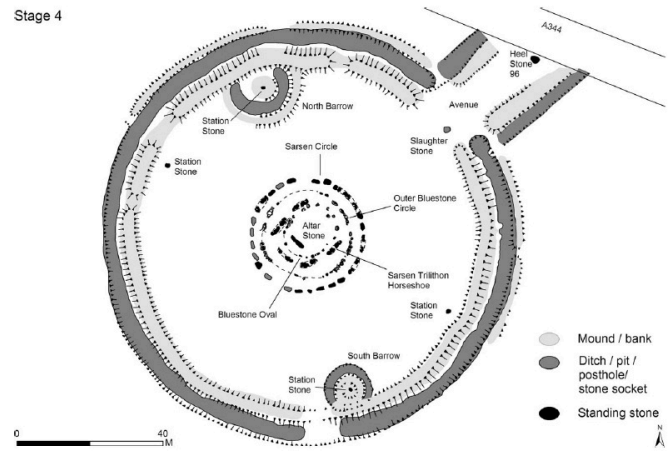
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PART ONE: SKETCHING THE CIRCLES (DRAWINGS)

Scale: 1m = 4cm

Stage 4



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PART TWO: COMPARING SIZES

Based on your drawings and the archaeologists findings, decide which circle took the longest and/ or more people to build. Use evidence (surface area, circumference) to support your opinion.

PART THREE: WHY IT WAS BUILT

Circles are an interesting shape, because they are actually the **most efficient**. They have the largest area for a given perimeter (in other words, if you wanted a shape with an area of 100 metres squared, a circle with that area would have a smaller perimeter than a square).

Using what you know about circles, why do you think the ancient groups building Stone Circles would have chosen that shape, instead of a square or an oval? Use evidence to back up your opinions.

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BONUS

a) *Try to disprove the theory that circles have the biggest area for any given perimeter, using examples.*

b) *Pretend you were a part of a prehistoric group, and have to create a palisade (a protective wall) around your community. Below, draw your design for the palisade, and give reasons as to why you chose that shape. How would you map your community within the palisade?*

