

SELF-LED ACTIVITY

BUILD A PREHISTORIC ROUNDHOUSE



KS2

KS3

Recommended for

KS2 and KS3 (History, Design and Technology, Maths)

Learning objectives

- Understand the stages involved in the construction of the Bronze Age roundhouse at Beeston.
- Follow instructions to build a model roundhouse.
- Consider some of the strengths and limitations of a roundhouse building.

Time to complete

Approx. 60 minutes



The reconstructed Bronze Age roundhouse at Beeston Castle and Woodland Park.

SUMMARY

The volunteer-led construction of the Bronze Age roundhouse at Beeston has been a wonderful piece of experimental archaeology. Using traditional tools and techniques, a core band of volunteers have built an experimental version of a Bronze Age hut, similar to those that would have been found on the site.

If you'd like to learn more about Beeston's prehistoric past, you might be interested in our Prehistoric Settlers Discovery Visit. This expert-led session based in the reconstructed roundhouse allows students to learn through hands-on activities including prehistoric-style crafts and using traditional tools in an authentic setting. **Search** 'Discovery Visits at Beeston Castle' for more information and to book.

TEACHERS' NOTES

The student sheet on pages 52–57, acts as a guide for each stage in building the roundhouse.

The activity gives students the chance to build their own model roundhouse in 10 steps. We've kept the basic approach simple but have made suggestions for a bit more challenge should students want or require that.

Materials needed:

Corrugated card, scissors, glue, sellotape, string or wool, paper straws, straw, clay (optional).

MORE LEARNING IDEAS

If your students have felt inspired by this roundhouse build, challenge them to try it with different materials. How about an edible roundhouse for example?! For a savoury version try a rice cake base with breadstick posts and Shredded Wheat roof. A sweet version could have chocolate fingers in sponge cake, topped with strawberry laces and a chocolate buttercream daub!

ENGLISH HERITAGE
EDUCATION

BUILD A PREHISTORIC ROUNDHOUSE

BE INSPIRED BY BEESTON

KS2

KS3

Follow these 10 steps to build your own model of a prehistoric roundhouse, inspired by the one at Beeston Castle and Woodland Park.

Need some help? Ask your teacher or a friend.



1 THE BASE

Cut out a base for your roundhouse. At least 10cm in diameter should give a good size.

MATERIALS YOU'LL NEED

Corrugated card.



The circular space and ground preparations ready for building the roundhouse at Beeston.

CHALLENGE TIME!



For a more realistic base, try **dry Oasis** – a foam-like block that is normally used for arranging artificial flowers!

DID YOU KNOW?



The roundhouse design is based on **archaeological evidence** of Bronze Age and Iron Age huts that have been found at Beeston.



The wall line and central posts being prepared ready to go into the ground.

2 THE WALL LINE

Create a wall line by inserting your 'posts' into your base. You'll probably need to carefully cut a hole before putting the posts in. Secure with a little (non-authentic) tape or glue. 7 to 11 posts, each around 8cm long, should be fine with approximately 3cm spacing between them (or 30 degrees if you're using a protractor). Don't forget to leave a bigger space on the south side for a main door.

MATERIALS YOU'LL NEED

Corrugated card or lolly sticks, glue or sellotape.

CHALLENGE TIME!



For a stronger wall line, try using **dowel** or for a more natural look use some straight **twigs** from outdoors.

DID YOU KNOW?



In the roundhouse at Beeston, the wall posts are responsible for taking two-thirds of the roof weight!

3 THE CENTRAL POSTS

The three central posts need to be inserted into your base, just like the wall posts. They should be around 20cm long. To do this mark the central point of your base and draw one vertical and one horizontal line, each around 3cm in length, through the central point to make a cross. If this were a compass, your posts should then be placed in holes north, south and west.

MATERIALS YOU'LL NEED

Corrugated card or lolly sticks, glue or sellotape.

CHALLENGE TIME!



Make sure that your central posts are bigger than your wall posts. This will give height to the roundhouse roof.

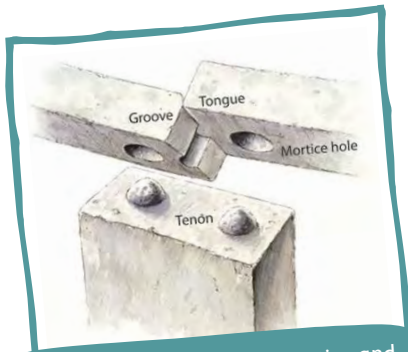
DID YOU KNOW?



Most of the material used to build the roundhouse at Beeston (such as the timber for the posts) came straight from the site!



A picture, looking south, of Beeston's roundhouse at this stage of its construction.



A diagram showing how mortise and tenon joints were used at Stonehenge.

4 THE PURLIN RING

The purlin ring joins the wall posts together and supports the middle of the rafters that make up the roof. Use some more lengths of card to add a purlin ring sitting on top of and joining your wall posts together (like the top of a T). At Beeston there is a small triangular purlin joining the central posts together. You might like to add one of those to your roundhouse too.

MATERIALS YOU'LL NEED

Corrugated card or lolly sticks, string or wool.

CHALLENGE TIME!

Mortise and tenon joints join the wall posts with the purlin ring. These were used at Stonehenge too! See if you can get one of these joints into your roundhouse build.



DID YOU KNOW?

Although not something prehistoric people had to do, English Heritage asked a **structural engineer** to check the roundhouse at Beeston to make sure it's safe.



5 THE WOVEN WATTLE

A tightly woven wattle wall will help make your roundhouse a strong structure. Using string or wool, start on one of your door posts and weave in and out around your roundhouse covering the sides completely, starting from the bottom up to the top of the wall posts. Don't forget to leave a gap for the door.



The wattle wall of the reconstructed roundhouse at Beeston. Note the window that was added to the design!

CHALLENGE TIME!

Take care to do this as neatly as possible. You could use lengths of willow or hazel but be sure to soak them overnight to make sure they're flexible.



DID YOU KNOW?

In the Beeston roundhouse, this woven wall directly takes one-third of the roof weight.



MATERIALS YOU'LL NEED
String or wool.



The rafters lying over the purlin ring (and triangular purlin) on the Beeston roundhouse.

6 THE RAFTERS

Next you need to lay long rafters over the top of the purlin ring (and triangular purlin if you've included it) so they come together at the top. Try to tie them together with string or wool (or else use a little glue or sellotape) at the top and where they touch the purlin ring too. Once secure, you can cut the length of the rafters so they overhang the purlin ring.

MATERIALS YOU'LL NEED

Corrugated card or paper straws, string or wool.

CHALLENGE TIME!



Try to position and shape the rafters carefully over your doorway so that it's easier for entering and exiting the roundhouse.

DID YOU KNOW?



There are 32 rafters on the roundhouse at Beeston. The roof pitch is set at 45–55 degrees to ensure there is enough 'run off' for rain hitting the thatch.

7 THE RING BEAMS

Ring beams lie horizontally in a circle around the rafters and make up a ladder that runs up the roof. The beams provide a point for tying off the thatching. Aim to add 3–5 beams on each section of roof.

MATERIALS YOU'LL NEED

Corrugated card or lolly sticks.



The ring beams making a ladder up the rafters, ready for the thatch roof to be added.

CHALLENGE TIME!



Try to tie these ring beams on but if you get stuck a little sellotape is fine!

DID YOU KNOW?



Ring beams can be woven, nailed or lashed (fastened securely with a cord) into position.



The layered thatch bundles on the roof of the Beeston roundhouse.

8 THE ROOF

The Beeston roundhouse uses thatch bundles, attached in thin layers to avoid putting too much weight on the frame. Create your own bundles of thatch using straw and tie them on using string or wool, moving up the ring beams.

MATERIALS YOU'LL NEED Straw, string or wool or glue.

CHALLENGE TIME!



Thatching a roundhouse involves working at height. Think about how challenging this would have been for people in prehistory without modern equipment.

DID YOU KNOW?



The Beeston roundhouse has around 1,000 thatch bundles forming its roof.

9 THE DAUB (OPTIONAL)

Daub is a mixture of soil with fibrous material to bind it together, such as straw. It's used to give a waterproof coating to the woven wattle framework. You may want to try mixing your own daub or for a (slightly) less messy option, you could use clay. Stick it carefully on top of the woven wattle.

MATERIALS YOU'LL NEED Clay or home-made daub.



Students working outside the Beeston roundhouse. Note the first stages of daubing around the door behind them and the uneven floor still to be completed.

CHALLENGE TIME!



To prevent shrinkage and cracks, daubing should be done by being pushed from both sides of the wall at the same time – see if you can get a friend to help you for this bit.

DID YOU KNOW?



The ratios of earth to fibre and water in daub are dependent on the type of soil in each particular place.

10 THE FLOOR

To finish your roundhouse, check it has a smooth floor by applying a layer of coloured paper or thin card.

MATERIALS YOU'LL NEED

Coloured paper or thin card.

CHALLENGE TIME!



Once you've finished your roundhouse, do some research to find out what might have been inside.

DID YOU KNOW?



A good roundhouse needs a hard-wearing floor with an even surface that isn't easily damaged.



A school group having a great time at the Beeston roundhouse.