

# Wattle and Daub

## (KS2)



How did people build houses in the Stone Age? Let's go back in time and build one!



Trees have been used to build houses for thousands of years. Wattle and daub are building materials used to make these houses in the Stone/Bronze/Iron Age across Britain and Western Europe.

### What you'll need

- Wattle and daub kits (can be loaned from City of Trees)
- Air dry clay
- Hay
- Water
- Mixing bowl

### Subjects

**History, Science,  
Art & design**

## Learning Objectives:

- Ability to address and devise historically relevant questions
- Understanding of Stone/Bronze/Iron Age life
- Ability to note connections and trends between Stone/Bronze/Iron Age technologies

## Lesson Plan:

### Warm up/Introduction

Role-playing: Find the right materials to build a house. The children must first find a strong oak tree for the long posts of their house, then willow, hazel, or birch for the structure of the walls and then mud to complete their walls. A full script for this role-playing activity is in Appendix A.

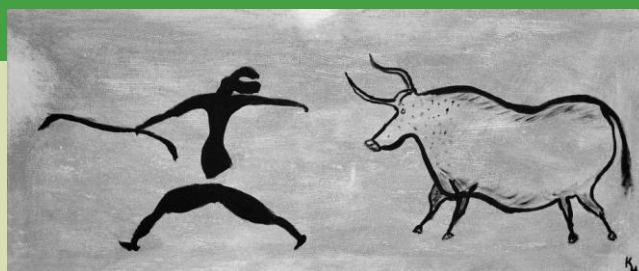
### Main Learning

1. Split children into groups of 4 or 5
2. Half of the groups will make the 'wattle' and the other half the 'daub.'
3. Step by step instructions for each of these two components are in Appendix B
4. Once all the groups have finished making their wattle or daub, each daub groups will pair up with a wattle group to complete the build together as show in Appendix B.

### Additional Activities:

#### Cave painting or Celtic runes

If you build the wall in the morning using air dry clay, pop it on the windowsill or another warm place to let it dry. By the afternoon you can use your wall to paint a cave painting or write initials in Celtic runes! Cave paintings use a lot of white, orange, and brown paints and there are lots of online resources to create Celtic runes.



## Add in some science!

Why not use your wattle and daub house to undertake a few experiments? You could test the structural protection and weatherproof properties of the wattle and daub. Ask the children to make a hypothesis (e.g. adding daub to wattle stops water getting through) and come up with the best way to conduct and notate the experiments, such as:

- Use various size toy animals and check if they can pass through the wall at its various stages of construction
- Use a spray gun filled with water to test the weatherproofing ability of the wall

## Other resources:

Tree ID sheets, along with other great activities, can be downloaded from the City of Trees Go Wild resources: <http://www.cityoftrees.org.uk/gowildfamilies>

We would love to see your children learning more about trees! Share your photos with us on Instagram or twitter /cityoftreesmcr



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## Appendix A: Role-play script

Your children are now Stone-Age hunter gatherers OR Celtic farmers. If they don't want to be attacked by wild beasts OR by a rival tribe (or worse Romans) they need a strong, secure home. To build one they first need strong, sturdy wood. So, it's time to go into the woods/your school grounds to look for some oak! Below are the instructions to give to the children. Those written in bold are for you, the teacher, to do:

Stand up and hold your stone/bronze/iron axe in your hand.

Search the forest for a strong tall oak tree.

When you are ready shout 'OAK!'

Use your axe to chop the oak down! Shout 'timber!'

Now move your axe from side to side to slice off the oak's branches. Then move up and down the fallen oak and chop it into long posts. Pick up a post. Walk in a circle, placing the posts into the ground as you go.

It's time to set the scene again. You have the foundations for your Stone/Bronze/Iron Age house but you have no walls! And so it's time to go back into the woods to find another type of tree as we carry on our role-play:

Hold up your axe.

Search for a willow/hazel/birch tree (the use of the tree was very much site specific – use one of these or even all three, it's up to you). When you're ready shout 'willow/hazel/birch'

Use your axe to chop down the willow/hazel/birch. Shout 'timber!'

Now move your axe from side to side to slice off the willow/hazel/birch branches. We don't chop the tree into posts this time because we want the tree to be long and bendy. So pick up the tree. Walk in a circle, weaving in and out of your oak posts as you go. This structure is called the wattle.

It's time to set the scene one more time. You have a strong circular wall for your house but there are holes in it which means the wind and rain can get in. We need to weatherproof the wall so that it stays warm and dry inside. Let's role-play again:

Pick up a big bowl. Put inside some sticky mud.

Then put in some manure, that's right, some horse and cow poo!

Mix it all up in the bowl.

Now we need something to bind it all together, so cut off some hair from your horse and collect some straw and put it in the bowl. Mix it all up in the bowl.

This is called the daub.

Throw the daub onto the wall and spread it across. Do this for the outside and inside of the house.

As the daub dries on top of the wattle, it becomes hard and strong and most importantly keeping the wind and rain out of the house. With the addition of a straw roof – you have made a Stone/Bronze/Iron Age house!

### GOOD TIP:

During the role-play, ask the children questions such as:

- What were Stone/Bronze/Iron age houses made from?
- What shape were their houses
- What trees do you think they used in making their houses?
- What do you think it would smell like inside these houses?

## Appendix B: Wattle and daub making

### Wattle making:

The wattle making group must work together to horizontally weave pliable withies through vertical bamboo poles. The bamboo represents oak and the withies represent willow, hazel or birch.

To help them complete their task you can print out the following instructions:

1. Make sure you have all your materials ready; one wattle frame, five bamboo poles and several withies.



2. Place the bamboo poles VERTICALLY inside the frame.



3. Weave the withies in and out of the bamboo poles HORIZONTALLY. Keep going until the frame is full.



4. A lovely completed wattle!



**GOOD TIP:** Why not get the children to test the strength of the wattle by carrying a different number of books on top of it?

## Appendix B continued

### Daub making:

The daub making group must work together to mix air dry clay, water and hay into the correct sticky consistency. The clay represents the mud and manure (we thought it best not to work with poo!). The children can follow the following, printable instructions. This is enough daub to cover approximately half of the wattle; therefore, children should work through the instructions twice.

1. Make sure you have all your materials ready; hay, air dry clay, water and a mixing bowl.



2. Take four handfuls of clay and break them up into smaller pieces. Put them inside the bowl and add a little bit of water



3. Squash, squeeze and mix the clay and water. the clay should be wet and sticky. If it's too dry or not sticky enough then add a little more water.



REMEMBER you can always add more water, but you can't take it away!

4. Add a big handful of hay and mix with the clay. The hay should keep the clay together, but the clay should still be sticky. This is the daub!

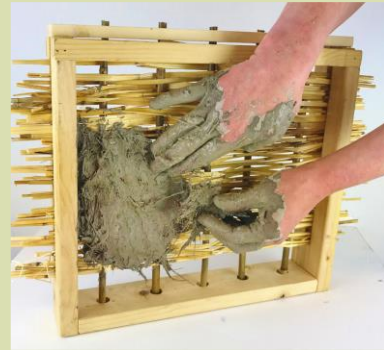


## Appendix B continued

### Adding the Daub to the Wattle

The wattle making and daub making groups should now come together and complete the wall. If they run out of daub, then they can always make more. As mentioned, the instructions above should make enough to cover one side of the wattle (when undertaken twice). If you have the time/energy why not make enough daub to cover both sides of the wattle?

1. Scoop up a small amount of daub (just enough to fit between your fingers and thumb). Press and squish the daub into the wattle – making sure it sticks! If you find the daub falls off the wattle, then add a little more water into the bowl and mix again.



2. Well done! You have built, from scratch, a real Stone/Bronze/Iron Age wall.

