

Make a Medieval Great Helm

Helmets and armour changed a lot in the middle ages.

At the start of the middle ages, a warrior would look like this:



And at the end, they looked something like this!



What differences can you see between the two warriors?

The Great Helm

One of the most famous helmets from medieval times is the **Great Helm**, which was used in the 13th and 14th centuries.



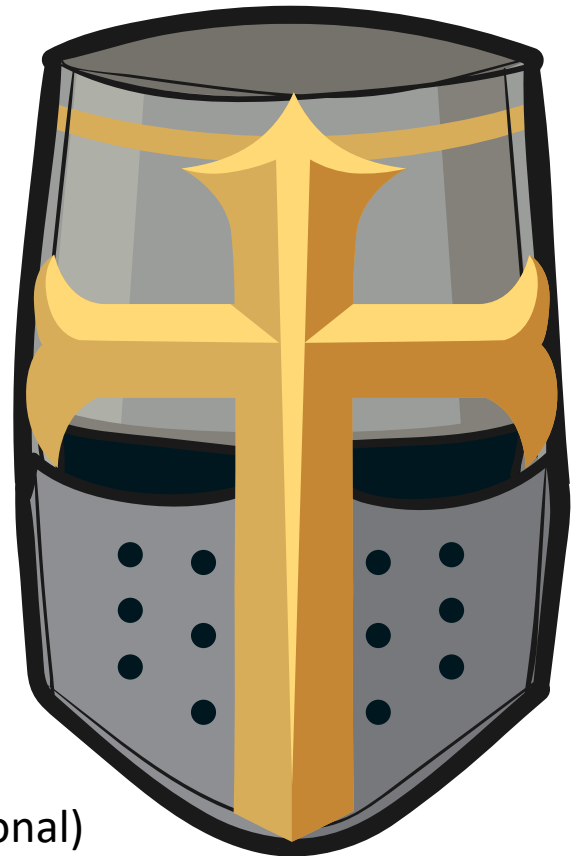
The Great Helm was essentially a steel bucket that you wore on your head, with a small slit for the eyes and some holes to breathe through.

Can you imagine how difficult it would be to fight in one of these? What kind of problems would you have?

You can find out how it would feel to wear a Great Helm by making your own from some stiff cardboard.

You will need:

- Two large pieces of cardboard. You need the kind that has two layers with a corrugated layer in between. A cardboard postal or supermarket delivery box is ideal.
- Strong sticky tape
- Scissors, or a craft knife and cutting board
- A tape measure, or some string and a ruler.
- A sharp pencil
- A lump of plasticine
- Scrap paper and PVA glue (optional)
- Paint for decoration



There is some measuring, basic addition and division involved in this activity, so have some note paper to write things down and make notes while you work.

Instructions:

1. Measure your head. Wrap the tape measure* around your head level with your eyebrows. To make sure your helmet won't be too tight, add another 5cm to your measurement. That will give you the **circumference** of your helmet. If your measurement is an **odd number**, round it up to the nearest **even number**.

Example: if your head measured 44cm, you would add 5cm to 44cm:

$$44\text{cm} + 5\text{cm} = 49\text{cm}$$

Then, as 49 is an odd number, you would round it up to 50. So your circumference would be **50cm**.

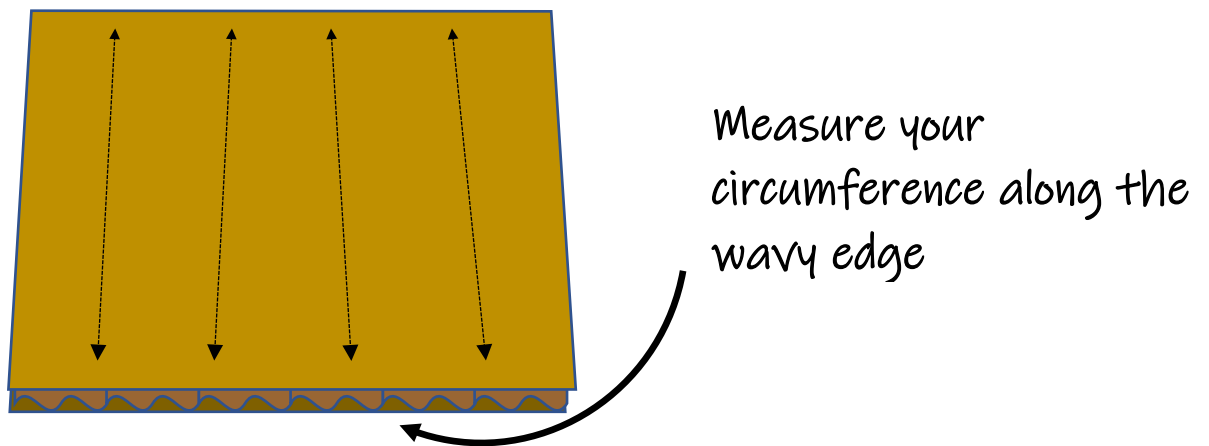
2. Then measure from the top of your head, to where your neck meets your shoulder. That will give you the **height** of your helmet.



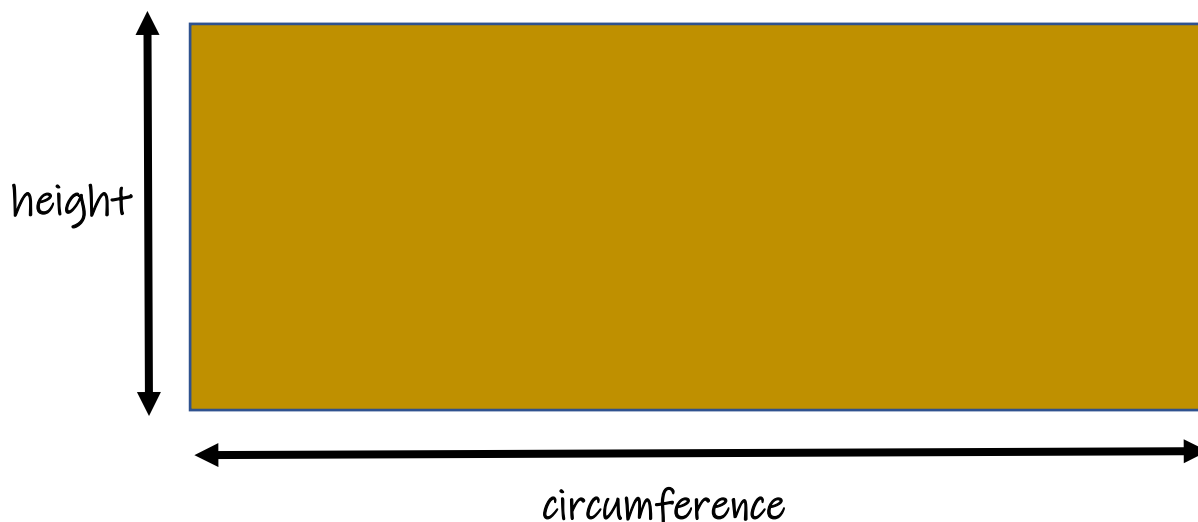
* If you don't have a tape measure, wrap a piece of string around your head and then measure the string against a ruler.

3. Make the body of the helmet

Place your cardboard so that the corrugations are **vertical** (up and down) **not horizontal** (side to side). You can tell by looking at the cut edge of the cardboard which way the corrugations run:



4. Measure the cardboard and cut with scissors or a craft knife (be careful!). You should end up with a rectangle:

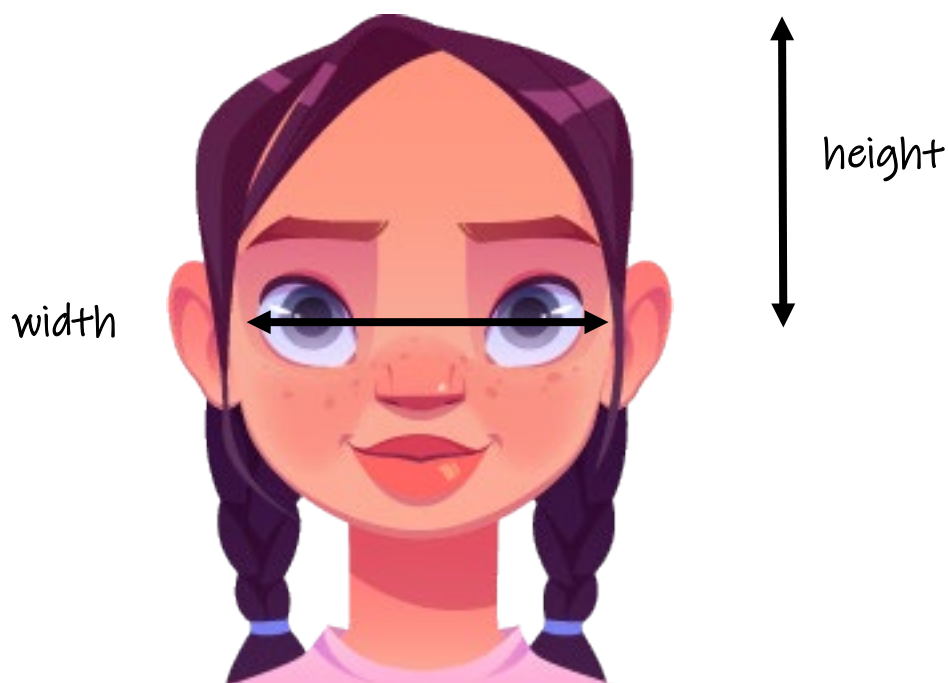


5. Make the eye slit:

It's time for more measuring!

To find out where to put the eye slit, you need to measure from the top of your head to your eye level. Be careful not to poke yourself in the eye!

Then you need to find out how wide to make the slit. Measure across from the outside corner of your left eye to the outside corner of your right eye.



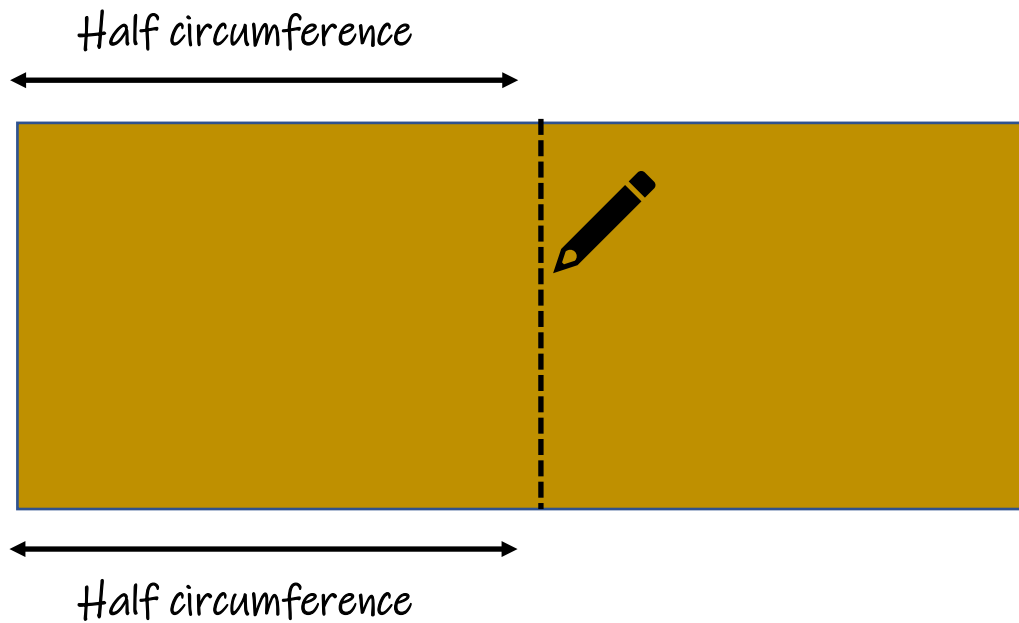
6. Now find the middle of your cardboard. Take the circumference measurement and divide it by two. Example: if your circumference is 50cm

$$50 \div 2 = 25$$

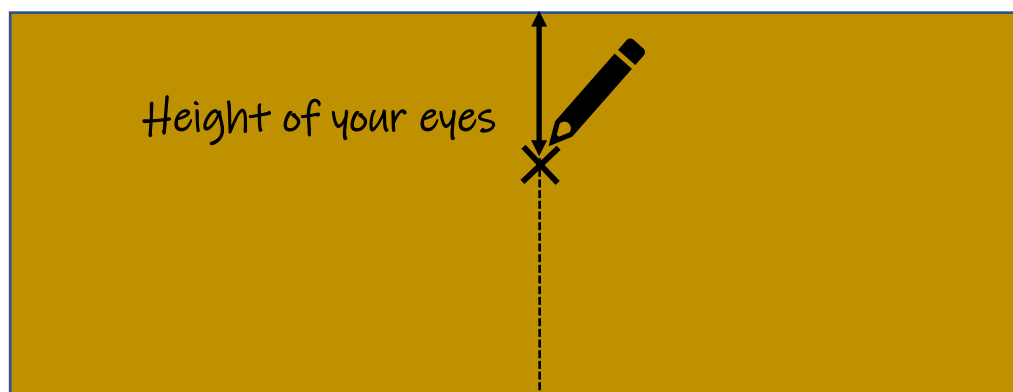
So the middle of your circumference would be 25cm from the edge of your cardboard.

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7. Mark the centre point of the cardboard on the top and bottom edges. Then draw a pencil line down the middle of the cardboard.



8. Now take the measurement you made for the height of your eyes. Measure from the top of the cardboard, down the centre line, and make another mark.

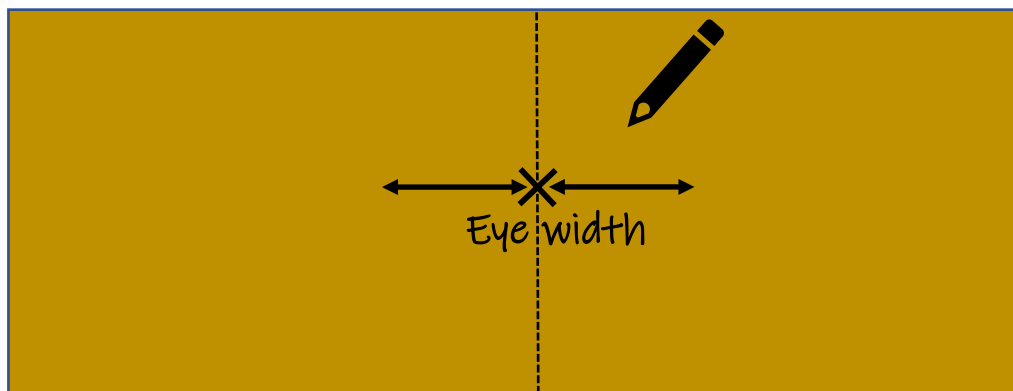


9. Take the measurement of the width of your eyes, and again find the middle. If the measurement is an odd number you can round it up to an even number to make it easier.

Example: If your eyes are 17cm wide, round it up to 18cm. Then divide 18 by 2 to find the middle:

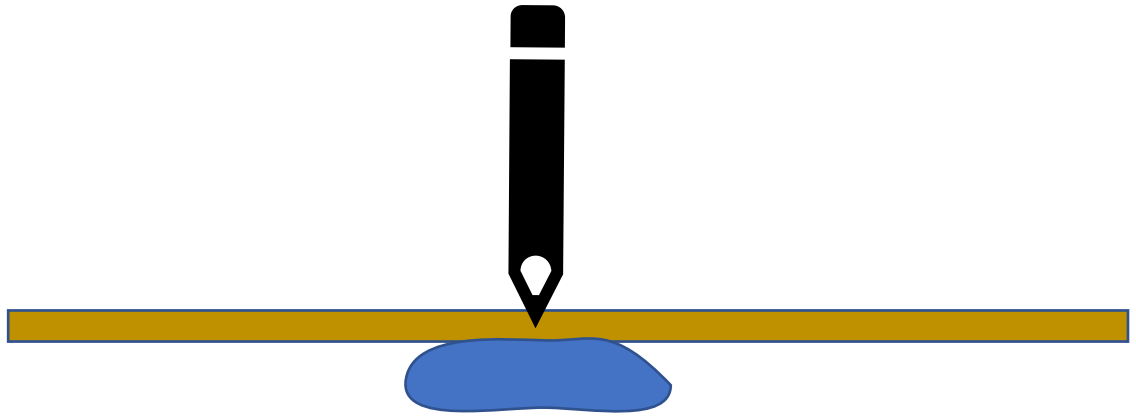
$$18 \div 2 = 9\text{cm}$$

10. From the mark you just made at your eye height, mark the centre of your eye width:



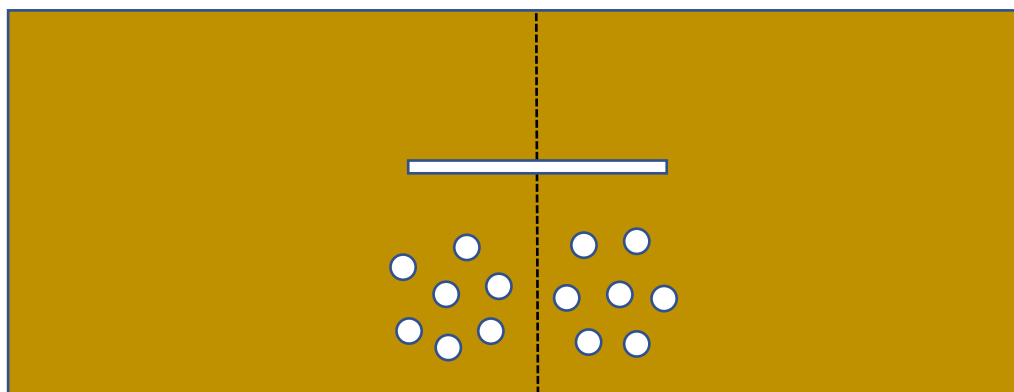
11. Using scissors or a craft knife and cutting board, cut a slit deep enough that you can see out of, but so deep that someone could shoot an arrow through it! Around 3cm is ideal.
12. **Make the air holes for breathing:**
Mark some points in pencil where you want your air holes to be. Don't mark them too close together in case the cardboard breaks up.

13. Take the sharp pencil and the lump of plasticine. Put the plasticine under the cardboard and stab the pencil through the cardboard into the plasticine. This should make a perfect air hole!



14. Sticking the helmet:

Your helmet should currently look something like this:

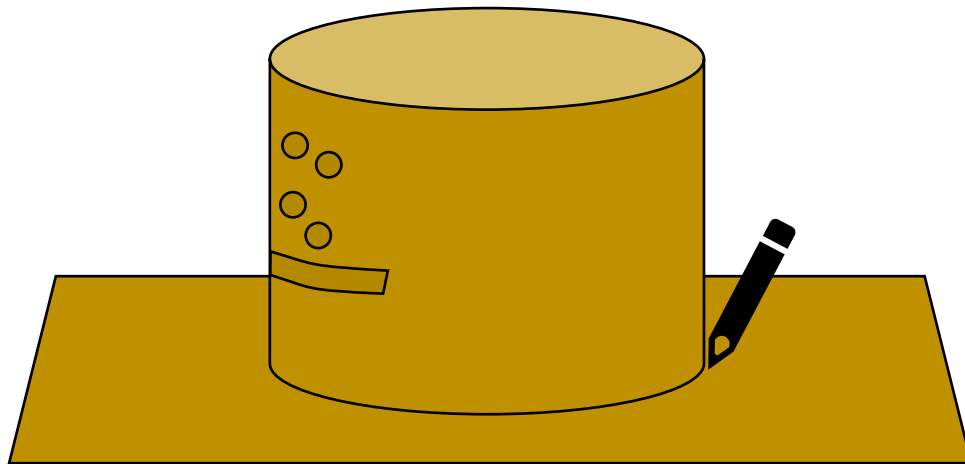


15. Now it's time to roll the helmet into the right shape. Starting at one end, carefully roll the cardboard into a tight tube. This will make it curve around your head. Once you've rolled it, let go and the cardboard should loosen into a nice smooth curve.

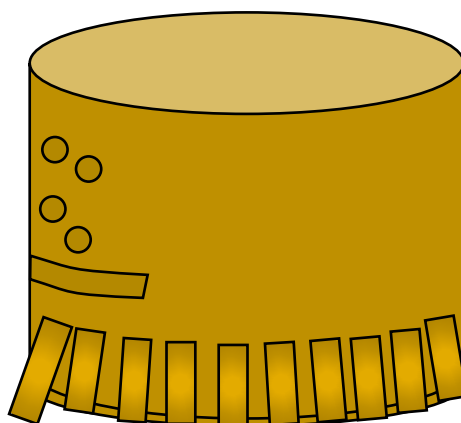
16. Tape the two edges together with the strong sticky tape, then try the helmet on to make sure it fits you!

17. **Make the top of the helmet:**

Turn your helmet upside down and place onto another sheet of cardboard. Draw around it and cut the shape out. You should end up with a rough oval.



18. Stick strips of tape all the way around the inside and outside to hold the oval in place.



19. If you are going to use poster paints on your helmet you can glue some scrap paper strips over the tape afterwards so that the paint sticks.
Alternatively if you want to make your helmet really solid, you can papier mache a few layers of newspaper over the helmet at this point, but you don't have to.
20. Paint your helmet silver or grey, and you may also like to decorate the front with a cross of a different colour.
21. Wear your helmet with pride!

