

Thank you for taking part in our collaborative art project “I’ve got yer back”. Our plan is to have lots of different people reproduce a vertebra using needle felting. These vertebrae will then be constructed into a spinal art project for National Back Week in October 2023 and International Anatomy Day.

**Please get your vertebra back to us by September 15<sup>th</sup> at the latest.**

Your pack contains

- A plastic vertebra the specific size and shape of which you need to recreate
- Enough wool to make your vertebra
- 2 needle felting needles and a small foam block
- Instructions
- A return slip which should be returned with your felted vertebra
- Return address slip

**Needle felting needles are very thin and sharp. Due to the 3D nature of the vertebra you may sometimes felt with the object in your hand. Please be aware of where your fingers are in relation to the needle. Where possible felt into the foam block but move the felt after every 10-12 stabs or you will fix it to the foam block.**

**You must push the needle in and take it out of the wool in the same direction. If you twist the needle whilst it is in the wool then it will break leaving sharp bits of metal in your felted wool.**

**Wool shrinks in the direction in which you stab it with the needle – you will use this principle to shape your model. It is always easier to add more wool than try to take some away (although scissors work if needed).**

Each vertebra is different – these are general instructions to create a vertebra. The individual shape of your vertebra can be recreated by adding small amounts of wool in the areas where your vertebra has bumps and lumps. You should aim for your felt model to look like the plastic model in your kit rather than looking like the pictures in these instructions.

Thank you so much for taking part in this collaborative felting project. Progress of the project can be followed on the ‘I’ve got yer back’ section of [www.anatomyfundamentals.com](http://www.anatomyfundamentals.com) or on twitter by following @anatomyfound. If you are posting progress of your felting then please tag @anatomyfound and #Ivegotyerback

1 - Take a small amount of wool to make the body of your vertebra. Please be aware that the body of the vertebra does not have a hole in it – this is an artifact of the plastic model so do not recreate this hole.

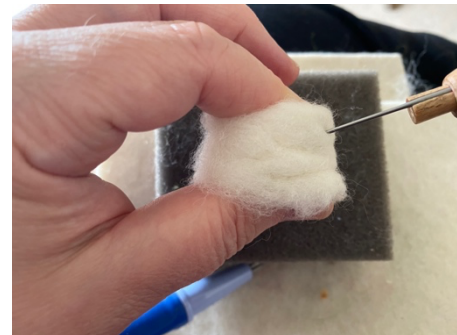
Roll it into a solid cylinder shape and stab it a few times to hold the shape. By continuing to stab the wool create a cylinder the size and shape of the body of your vertebra.



2 - Following the principle that the wool shrinks in the direction in which you stab it, you can stab this cylinder from the top and bottom to reduce it to the size of your vertebral body.



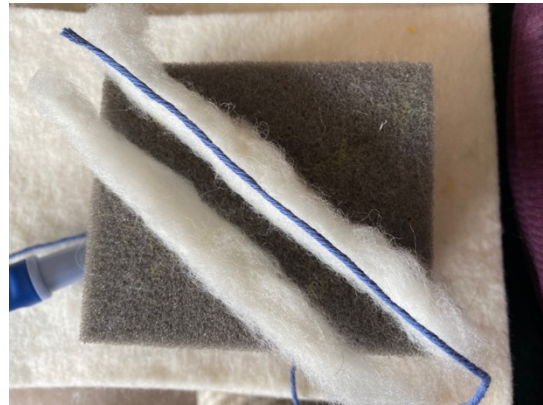
3 - By applying pressure at the top and bottom of the cylinder the wall will fold in and the concave shape of the body wall can be created. Check your vertebra as this concave shape increases as you progress down the spine. A slight dimple in the top and bottom surface of the vertebra can be achieved by continuing to needle felt the surface without going all the way to the edge.



4 - Once the body is formed use a piece of string to measure from the body of the plastic vertebrae, along the transverse process and down to the end of the spinous process.

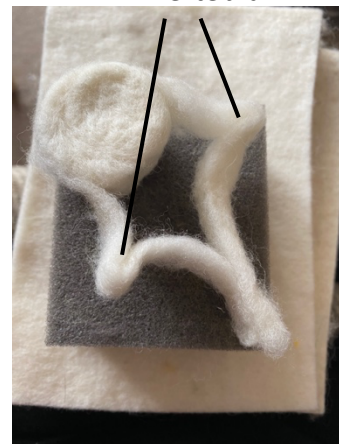


5 - Create two thin strips of wool this length. They will be used as the foundation for constructing the rest of the vertebra.



6 - Once these two strips are fairly solid, needle felt them onto the body. Double back the section to create the transverse process and then join the two ends together to create the spinous process. If you are creating a cervical vertebra then you need to have holes in the transverse processes. You can either poke these through with an awl when you have finished or you can position a thick needle or a small plastic straw into the transverse process now so that this is trapped between the wool layers now as you double them back. You can felt around this object and the wool will hold the shape when the object is removed.

Insert objects here and trap between two wool layers if making a cervical vertebra



7 – Firm up the two strips so that they hold the shape you need for your vertebra. Do not forget that you can felt both sides to form the shape.

The angle of the spinous process can be changed by holding the felt in the position you want it to be and needle felting in that shape. If you have joins that you do not like then wisps of wool can be added and felted over the top.



8 – the pedicle is the piece of bone that connects the vertebral body to the processes. You need to make sure that this is firmly felted to hold everything in shape.



9 - The articulating processes can be felted as small pieces of felt and then added onto the frame. Take a pinch of wool and fold it over to create a tip that can be felted into a little ear-like structure. You can felt this tip quite firmly and leave loose ends so that you can attach it to your frame. Remember that the angle that you attach these on at is quite important.





10 – From here it is a case of adding on extra bits of wool to build up the shape of your vertebra. The lamina is the piece of bone that connects the transverse processes and the spinous process. Its depth can vary considerably between the vertebrae so make sure you check your model. Wool can be added to this area by felting extra fibres onto the frame that you have created.



Areas of the bone can be built up by adding small bits of felt onto the frame and needle felting them into place.

The more the wool is felted, the firmer it will become and then the easier it is to sculpt into shape.

To smooth the surface you can change the angle at which you felt. The shallower the angle of the needle to the wool, the smoother the surface will be. Alternatively, you can trim with scissors.



Your vertebra will become part of a larger art installation where we will be recreating the shape of the spine so it is important that your felt is as close to the plastic model as possible to ensure it all fits together.

**When you are happy with your model please return the felt (and the plastic model – they will be used to teach future generations of anatomists/ medics). There is a return address label in your pack. It will cost just under £4 to return it to us, second class. Once the piece is finished and unveiled at the National Back Week event we will send you a digital photo of the art work. Your name will be credited along with all the other contributors. If you want the photo and details of the National back week event then please enclose your email with your felted piece\*.**

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\*Your email will only be used for the purpose of contacting you about this felting project and associated event. It will be stored on a secure server and deleted once the event is over and the photos sent out. It will not be passed on to any other parties.