

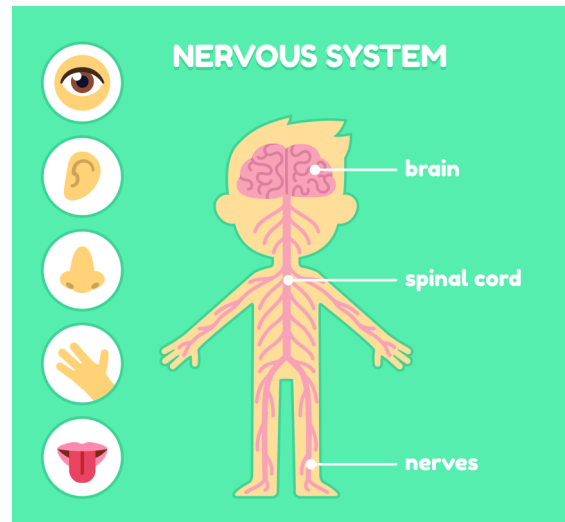
SCIENCE OF THE SENSES: TOUCH

IN THIS ACTIVITY YOU CAN LEARN MORE ABOUT THE SCIENCE BEHIND YOUR SENSES. HAVE A GO AT MAKING A FEELY BOX USING ITEMS AROUND YOUR HOME.

HOW DO WE FEEL THINGS?

Your skin is covered in lots of tiny **touch receptors** that can sense **temperature**, **pain** and **pressure**. You have them all over your body, but have even more on your fingertips, which is why they are so great at feeling things!

When we 'feel' something, these touch receptors get excited and send a signal via our **sensory nerve cells**, through our **spinal cord** to the part of the **brain** responsible for touch: the Somatosensory Cortex in the Parietal Lobe.



YOU WILL NEED:

- Cardboard box
- Scissors/craft knife (adult supervision needed)
- Pencil
- Material for the hand holes, e.g. a flannel, towel, sheet or t-shirt.
- Interesting items to put in your feely box

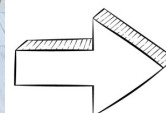


1

Firstly, draw two circles on the side of the box - one on each side.

These will be hand holes so make sure they are big enough!

Then with an adult's help, carefully cut out the circles.



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2

Next, attach a piece of material to the top of the box to cover the two hand holes - this is so there is no peeking at the items later!

You could use a flannel, towel, sheet or t-shirt. Use a piece of sticky tape to secure it to the box.

This is also a good time to decorate your box if you want to - wrapping paper, pens, paint or fabric all work well.



3

Now it's time for the fun part! What items are you going to put in your feely box to test your family?

Here are some ideas to get you started:

- Clean washing up sponge
- Spoons: metal, plastic and wooden
- Elastic band
- Wooden lollipop stick
- Pen
- Roll of sticky tape
- Christmas decoration
- Cotton bud
- Clothes peg
- Balloon
- Piece of fruit

You really could choose anything! Just make sure it's clean and not sharp, because remember the other person won't be able to see, so it needs to be safe.



EXTRA CHALLENGES

- What happens if you put gloves on, then try and feel the objects? Is it easier or harder to work out what the items are? Why do you think this is?
- When feeling the items and trying to guess what they are, use 3 words to describe the texture, e.g. smooth, rough, bumpy, hard, soft, rubbery, rigid, brittle
- Once you've guessed all the items correctly, turn it into a memory game - can you remember all the items in the box without touching them again?

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MORE ACTIVITIES TO DO WITH TOUCH

1

CORNFLOUR AND WATER (OOBLECK)

Start with a cup of cornflour in a bowl and add a little water at a time until it makes a thick mixture. You will need to stir it slowly with either a spoon or your fingers. Keep adding water or cornflour until the consistency is right - part liquid, part solid!

The mixture is called a non-Newtonian fluid and acts as a solid when pressure is applied to it, but then acts as a liquid when poured. It's really cool stuff and great fun to play with!

Try squeezing it in your hand - what happens? Then let go and see if it goes back to liquid.

There are even videos of people getting the mixture to dance as they pass sound vibrations through it!

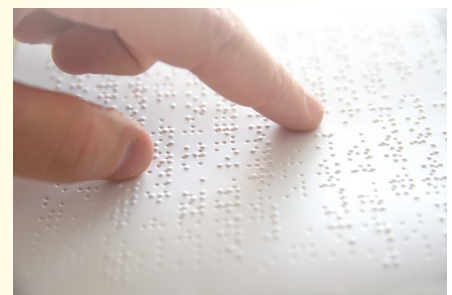


2

READ WITH YOUR FINGERS: BRAILLE

Braille is used by people who are blind or partially sighted so they can read using their sense of touch. The system involves different patterns of raised dots to represent the letters of the alphabet.

Have a go at writing your name in Braille using the alphabet below - you could use stickers, gems or blobs of liquid glue to create the 3D effect.



A B C D E F G H I J K L M N O P Q R S T U V W X Y Z



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