

# Introduction to sense: Touch

Humans and animals use **touch receptors** in their skin to understand the different sensations they feel. Touch receptors can help us to know whether we are too **hot** or **cold**, for example, or whether a stone is **smooth** or **rough**.

There are different **types** of touch receptors. Some receptors detect **vibrations** and **movement**, while others can detect different **textures** and **temperatures**, or if something is **wet** or **dry**. Touch receptors can also tell us if something is **hurting** us (for example, if someone is standing on our foot!).

Touch receptors are **very sensitive** and send **messages** to the **brain** to help understand the environment and how we are interacting with it. The brain only **takes notice** of **some** of these messages though, for example, it doesn't keep reminding us that we are wearing clothes unless they become uncomfortable!



A human's **hands, feet** and **lips** are the body parts **most sensitive** to touch, as they have a very high number of **touch receptors**.



Humans use their hands to **feel** all the time when picking things up or reaching out to touch something. These sensations help to keep us **safe and well**.

## Spiders!

**Spiders** are different to us when sensing touch. They have a large number of **special hairs** on their **legs** called 'trichobothria'.



Spiders can feel different sensations using these hairs on their legs. **Messages** are then sent to their **brain** to tell them if something is on their web. Their sense of touch is **so sensitive** they can even tell exactly **what** and **where** something has landed on their web!



## Humans and animals also use touch to communicate

Some examples include:



*Elephants linking their trunks to show each other that they are there.*



*Monkeys hugging and kissing to greet one another.*

*Humans shaking hands, hugging, kissing and high-fiving with others.*



Using touch in this way shows others that **we care about them** and it makes us **feel better** too!

### What have you learnt so far?

**Why** is touch so **important** to humans and animals?

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What kind of **sensations** can we **feel** through our **skin**?

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**What** are the most **sensitive parts** of our bodies?

.....

**How** do humans and animals use **touch** to **communicate**?

.....

# Try it at Home - Make a Mystery Bag

This activity is for children ages 3-11. Young children will need help preparing the materials in the activity whilst older children can create them with very little support or even independently.

You will need: A bag or box with a lid, large enough to put your hand in; some small pairs of objects to put in the bag. Find two of each object and vary the material they are made from, such as coins, dice, two matching plastic animals.

If using a box, have a grown-up help you cut a hole in the side of the box big enough to put your hand through.

1. Put all the objects in the bag or box.
2. Before you begin, prepare your fingertips by dipping them in some warm water, then gently drying them off with a soft towel.
3. Without looking, reach into the bag or box and select an object. Pull it out of the bag or box.
4. Reach in again and using your sense of touch, find the matching object in the bag or box.
5. Try to find all the matching pairs of objects using only your sense of touch.
6. For a bigger challenge, try matching objects with only subtle differences, like different varieties of dried beans, or small squares of different types of fabric.

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**What is Montessori?**

# Try it at Home - Make a Mystery Bag

## Questions to think about

Did the different **materials** the objects were made from help you find the match?

How did the different **shapes** of the objects help you make a match?

How do you think animals use their **sense of touch** to stay safe?

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