

Grade 4 Science
Week of October 5 – October 9

Taste, Touch, and Hearing

Taste

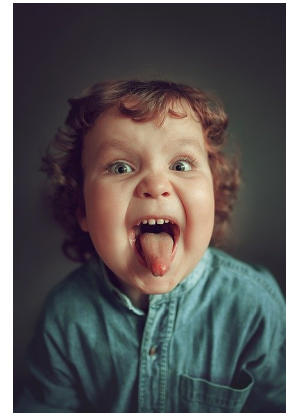
Did you ever wonder why your favorite foods taste so good?

Well, you can thank your **taste buds** for letting you appreciate your favorite food!!!



Watch this video about how we taste our food!

<https://youtu.be/C4rdqXXzPGU>



Taste buds that are found on your tongue allow you to experience tastes that are sweet, salty, sour, and bitter.

If you look at your tongue, you will see bumps. Those are called **papillae**, and they contain taste buds. Taste buds have very sensitive microscopic hairs called **microvilli**. Those tiny hairs send messages to the brain about how something tastes, so you know if it's sweet, sour, bitter, salty, and umami.

Your nose and mouth work together to give you flavours.

Did you know:

- An average person has about 10,000 taste buds
- Taste buds are replaced about every 2 weeks
- Your sensitivity to bitterness may protect you from being poisoned because most poisons have a bitter taste

Try This:

Try holding your nose the next time you eat something. You'll notice that your taste buds are able to tell your brain something about what you're eating — that it's sweet, for instance — but you won't be able to pick the exact flavor until you let go of your nose.



Complete the following fill-in-the-blanks.

1. You can thank your _____ for allowing you to taste your favourite foods.

2. The 5 main flavours our tongue can taste are called _____, _____, _____, _____, and _____.

3. The bumps on our tongue are called _____.

4. Taste buds are found on the _____.

5. Both your sense of _____ and _____ work together to help you taste the food you are eating.

6. Our _____ get replaced every two weeks.

7. Sensitivity to _____ can protect us from poison.

8. What is one interesting fact about our taste sense?

Touch

We all have skin. It covers our entire body and keeps the good stuff in and the bad stuff out. But what exactly is skin? We'll get into the details below, but for starters the skin is an organ. Just like the heart or the brain. It's an important organ that performs many functions to enable us to live.

The skin also houses one of our five senses: touch. In our skin are thousands and thousands of sensors or receptor cells. Skin protects us from the weather, regulates our temperature and gives us our sense of touch.

These sensors send information to the brain about things we touch. They can tell the brain if it's hot, cold, rough, smooth, or painful.

Different areas of our body have more receptor cells than others. Our hands, feet, and lips all have extra receptors making those areas even more sensitive. There are actually different types of receptor cells for each type of sensation.

Did you know:

- The skin has three layers Epidermis, Dermis and Hypodermis
- Your skin lasts for your whole life time
- Goosebumps help keep us from losing heat



Watch this Bill Nye and respond to the questions below: <https://dai.ly/x3cppvb>

1. Our _____ is the largest organ in our body.

2. Your skin weighs twice as much as your _____

3. Your skin is _____ on your eyelids

4. When the water _____ off the skin it carries the heat away with it.

5. Your skin is _____ on your feet.

6. _____ keep us from losing heat.

7. It takes 200 000 _____ to produce 1 wrinkle

8. What three things does our skin do for us?

a.

b.

c.

9. What are the three layers of our skin?

a.

b.

c.

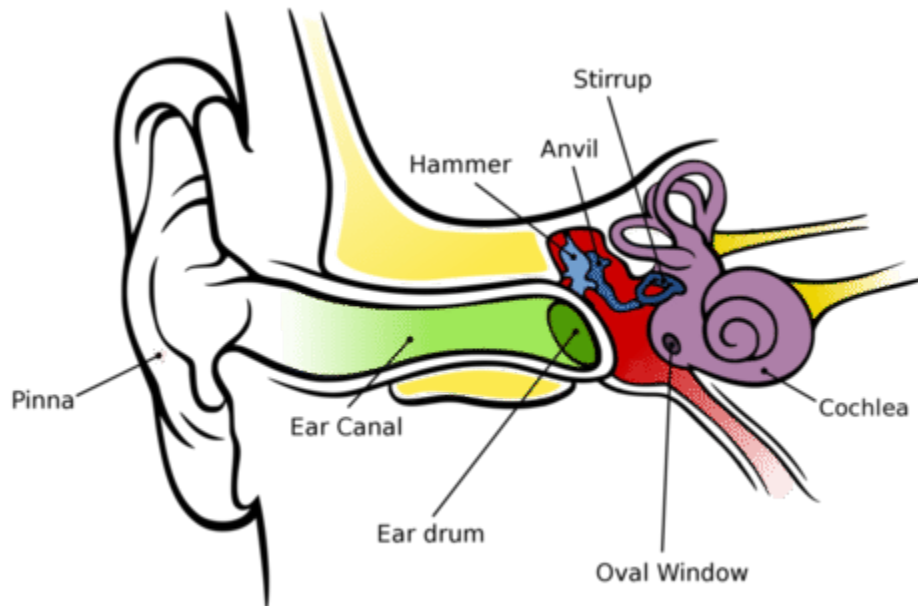
Hearing

Hearing is how we perceive sound. It's how our ears take sound waves and turn them into something our brain can understand.

The pinna or auricle: this is the part of the ear on the outside of our heads. The part we usually are referring to when we say ear. It helps to gather sound and vibrations so we can hear more sounds.

The ear canal: This is a tube that helps sound to travel further inside our ear and to get to the next stage of hearing

The ear drum: The eardrum is a thin sheet that vibrates when the sound hits it. Your eardrum is very sensitive and fragile. It's never a good idea to put anything in your ear, even something that seems safe and soft can damage your eardrum.



Did you know:

- an echo bounces back
- sound travels in waves



Watch this Bill Nye and respond to the questions on the next page:
https://youtu.be/BwRi_N6Nq8E

1. Sound travels in _____.

2. Draw below what a high frequency sound would look like and a low frequency:

High Frequency (high pitched)	Low Frequency (lower in pitch)

3. An _____ is caused by sound waves bouncing off an object.

4. The _____ or auricle is the part of the ear outside of the head.

5. The _____ is a thin sheet in your ear that vibrates when sound hits it.

6. Label the hammer, anvil, stirrup, eardrum, ear canal, and pinna.

