Aaa chhee!
Ashima was sitting near the window and reading. It was windy and there was a lot of dust in the air. Suddenly Ashima sneezed loudly—aaa chhee!

Ashima’s parents were sorting out vegetables in the kitchen. Her mother said, “She sneezes just like you do. If you were not here, I would have thought it was your sneeze.”

Fill in the table

- Ashima sneezed just like her father. Do you have any such habit or trait which is similar to that of someone in your family? What is it? Whom is it similar to?

<table>
<thead>
<tr>
<th>Your special habit or trait</th>
<th>Whom is it similar to?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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Teacher’s Note: In Class III we had drawn attention to the similar traits children share with the immediate family members. Discussion can now focus on how some traits/features which are also similar in distant relatives in the extended family. This should be done through children’s own experiences.
Tell

- Does your face or anything else look similar to that of someone else in your family? What is it?
- Did someone tell you this or did you find it out yourself?
- How do you feel when people compare you with someone else in your family? Why do you feel so?
- Who laughs the loudest in your family? Laugh like that person.

Who is whose aunt?

Nilima had gone to the house of her nani (mother’s mother) in the school holidays. She saw someone coming and went to tell her mother, “Amma, a mausi (mother’s sister) has come to meet you.” Her mother came out to see who had come. She told Nilima, “No, this is not your mausi! She is your sister Kiran. You know your eldest nani? Kiran is the daughter of her elder son. Kiran is your cousin sister. In fact, you are her cute son Samir’s mausi!”

- Make a list of all the family members from Nilima’s nani to little Samir. How are they all related to Nilima? Write.

Find out

- In your family are there any such examples of uncle-nephews or brother-sisters, where there is a big difference in the age? Find out from your elders.
How we are all related!

Nilima started playing with Samir. Her mother called Kiran and said, “See, my Nilima’s hair is a lot like yours – thick, curly and black. It’s good she does not have hair like mine – straight, limp and brown!” Nilima’s nani laughed and said, “Yes, isn’t it strange? We sisters had thick curly hair and now our second generation has similar hair.” Nilima was listening to all this. She thought, “We are called ‘distant’ relatives, but, how closely related we are in many ways!”

Find out and write

- Does Nilima have curly hair like her nani’s? Now you look for some special trait in your sister or brother (could also be cousins). Like the colour of eyes, dimples in cheeks, height, broad or sharp nose, voice, etc. See if this trait comes from the father’s side or the mother’s side. Make this table in your notebook and fill it. An example is given.

<table>
<thead>
<tr>
<th>Special trait</th>
<th>Whom does it resemble?</th>
<th>From whose side?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nilima’s</td>
<td>her nani (grandmother)</td>
<td>Mother’s</td>
<td>Father’s</td>
</tr>
</tbody>
</table>

- Have you seen a very young child in your (or any other) family? Whom does the child’s eyes, nose, hair or fingers look like in the family? Write their names.
- Nimila’s hair is like her nani’s – thick and curly. Nilima’s mother has straight, brown and limp hair? What type of hair do you have – black or brown, oily or dry?
• What is the colour of your hair? Measure and write the length of your hair.
• Is your hair like that of anyone else in your family? If yes, then name the person.
• Measure the hair of other members of your family.
• Who has the longest hair in your family?
• How many people do you know whose hair is longer than one metre? Does having long hair run in their family?

• Do you know how to measure your height? Measure yourself from head to toe and write how tall you are.
• How tall do you think you will be when you grow up? Is anyone else in your family of the same height?
• Measure the height of your family members and write it down.

Is this a mirror?

Look at the next page. Is Saroja standing in front of a mirror? No, this is her twin! Did you get confused? Their mother’s brother (mama) also gets confused when he sees them together. At times Saroja gets scolded for mischief done by Suvasini. Sometimes Suvasini tricks her mama and says, “Suvasini has gone out.”

Teacher’s Note: Encourage children to think of some ways of measuring hair and height.
But now *mama* has learnt a trick. He says – Sing a song in *Marathi*! Why this funny trick? Read about them and you will understand.

The sisters were just two weeks old when Saroja’s (father’s brother’s wife) *chachi* adopted her and took her to Pune. Everyone in *chachi*’s house is very fond of music. Mornings begin with music in the house. Saroja knows many songs in both the languages – Tamil and Marathi. At home everyone speaks Tamil and at school most of the children speak in Marathi.

Suvasini stays with her father in Chennai. Her father is a karate coach. Since she was three, Suvasini started doing karate with the other children. On holidays, both father and daughter start practicing in the morning.

Saroja and Suvasini look alike but are also quite different. Do you now know why *mama* has his way of finding out who is who?

**Discuss**

- What is similar between Saroja and Suvasini? What is different?
- Do you know any twins? What is similar in them? How are they different?
- Do you know of twins who don’t look the same?

Saroja and Suvasini look a lot like each other yet are different. For example, Saroja knows two languages. If Suvasini’s family also talked in two languages she could also learn both. We learn many things like language, music, love for reading, or knitting, when we get a chance and an environment to do so.

**Teacher’s Note**: Discuss with children that we acquire certain traits at birth from our parents. Certain things we learn from our environment.
This from the family

Do this interesting survey in your class. Write how many children can do this:

1. Without touching your teeth fold your tongue towards the back of your mouth.
2. Roll your tongue by lifting it from the sides.
3. Open all the toes of your feet. Now without moving the others, move the little toe.
4. Touch the thumb to your wrist.
5. Make a ‘V’ by separating two fingers of your hand to each side.
6. Move your ears, without holding them.

Those children who could do any of these should ask their family members also to do so. So, how many children have got this trait from their family?

But not this from parents...

Satti was only a few months old when one of her legs was affected by polio. But she never let this come in the way of her work and her life. Walking long distances and climbing many stairs has been a part of her work. Now Satti is married. Some people tell her not to have any children. She is also worried that her children may also get polio. She spoke to a doctor about this.

Like Father, Like Daughter

No, no, don’t be worried! It is not that if any of the parents have polio, their child will also have it.
Experiments with peas – rough or smooth?

Gregor Mendel was born in a poor farmer’s family in Austria in 1822. He was very fond of studies but the very thought of examinations made him nervous (Oh! you too feel the same!). He did not have money to study at the University so he thought of becoming a ‘monk’ in a monastery. He thought from there he would be sent to study further. Which he was. But to become a science teacher he had to take an exam. Oh no! he got so nervous that he kept running away from the exam, and kept failing!

But he did not stop doing experiments. For seven years he did experiments on 28,000 plants in the garden of the monastery. He worked hard, collected many observations, and made a new discovery! Something which scientists at that time could not even understand! They understood it many years after his death, when other scientists did such experiments and read what Mendel had already written.

What did Mendel find in those plants? He found that the pea plant has some traits which come in pairs. Like the seed is either rough or smooth. It is either yellow or green, and the height of the plant is either tall or short. Nothing in between.

The next generation (the children) of a plant which has either rough or smooth seeds will also have seeds which are rough or smooth. There is no seed which is mixed – a bit smooth and a bit rough.

He found the same with colour. Seeds which are either green or yellow give rise to new seeds which are either green or yellow. The next generation does not have seeds with a mixed new colour made from both green and yellow. Mendel showed that in the next generation of pea plants there will be more plants having yellow seeds. He also showed that the next generation will have more plants with smooth seeds. What a discovery!
Some from the family, some from the environment

From a distance Vibha knows that her nana (grandfather) is coming – from his loud laughter. Nana also talks loudly and hears with difficulty.

- Are there people in your house who talk loudly? Is it their habit, or they cannot also hear very well?
- Are there times when you do not talk loudly in front of some people? When? With whom? Why? When can you speak loudly?
- Some people use a machine in their ear to help them hear better. Some use a stick or spectacles to help them in other ways. Do you know someone who does so?
- Talk to people who cannot hear very well. Find out if they had this problem from birth. When did they start to have a problem with hearing? What difficulties do they face?

We have seen that some traits or habits we get from our family. Some things and skills we learn from our environment. At times our abilities change because of some illness or old age. All these together make us what we are!

What we have learnt

What do you think – what all is a part of you that you got from your mother's side?

Teacher's Note: Discuss with children about polio which is caused by a virus and is not inherited. Many a times people have such misconceptions about some diseases like leprosy. Discuss, how and where these can be treated. If possible, invite a doctor to respond to the children's questions.