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FOR TEACHERS ONLY

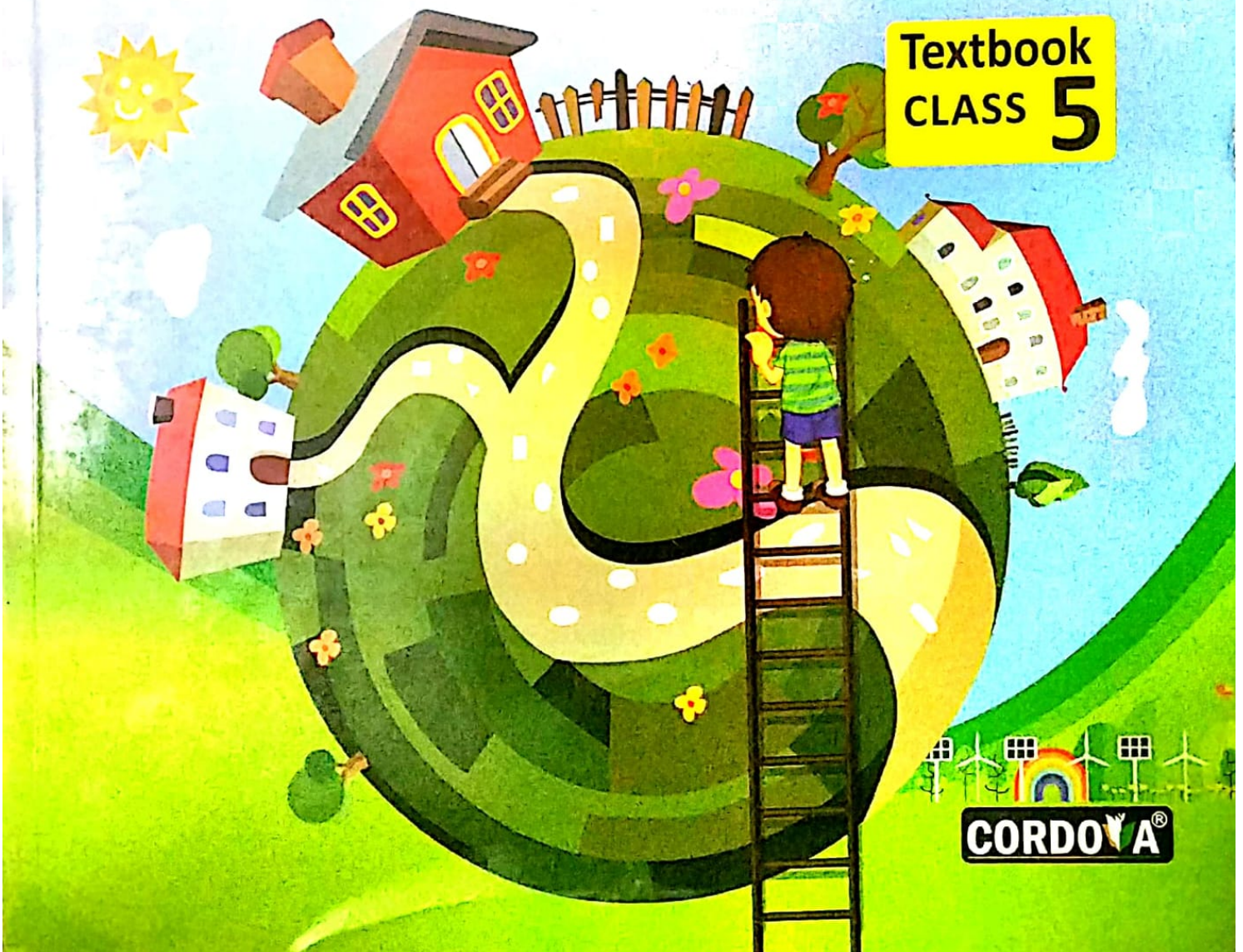
**As Per The Latest Rajasthan State Board Syllabus**

Exercises are strictly framed in accordance with the latest  
Sample Paper for Class 5 Board Examination,  
issued by SIERT, Udaipur, Rajasthan

# MY JOYFUL BOOK OF ENVIRONMENTAL STUDIES

Integrated with Environmental Education

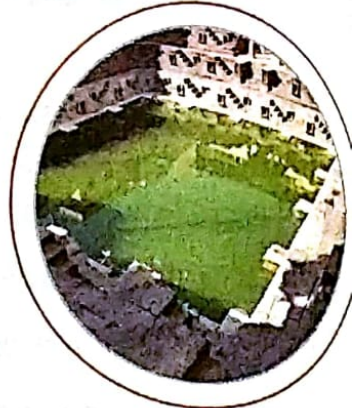
Textbook  
CLASS 5



**CORDOVA®**

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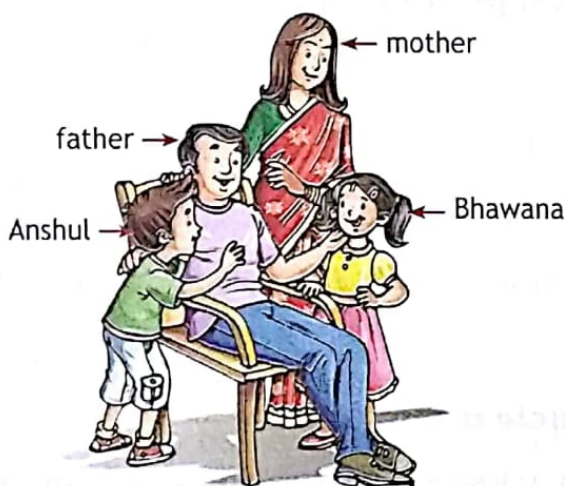


# Understanding Our Relations

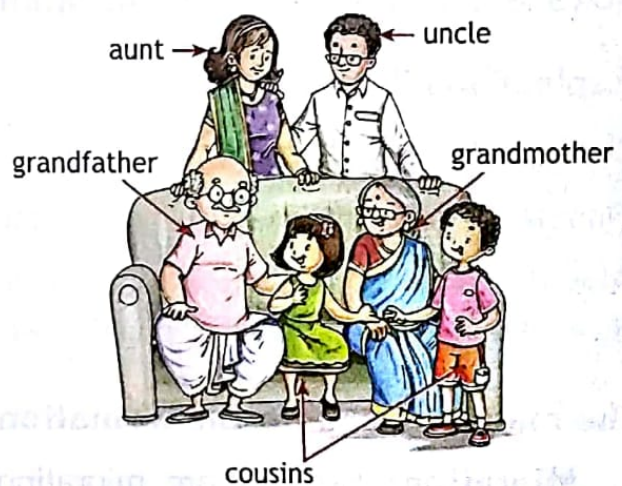
Use *Cordova Smart Class Software* on the *smart board* in class to make learning enjoyable.

Hello, I am Bhawana. I study in Class V. Anshul is my brother. We live with our parents. Ours is a **nuclear family**.

During this summer vacation, we visited our home town **Rajkot**, in **Gujarat**. My grandparents live there. My uncle's family also lives with them. My uncle has two children, Kanishk and Gauri. They are my cousins. Their family is a big joint family. They all live in a big house.



Bhawana with her family



Bhawana's extended family

We had a very nice time in Rajkot. We enjoyed the company of our cousins. We had a wonderful time living and playing together. We met many of our relatives whom we had never seen before. They were very eager to know about our experience of living in a place away from our home town.



Playing together

We learn many things from our family much before we learn from anywhere else. This is because we are close to our family. Our family is rightly called **our first school**.

**Priya** is my friend. Rahul is her brother. She lives in a house with her mother, father, brother, grandfather, grandmother, uncle, aunt and cousins. Her family is also a **big joint family**.



Priya's big joint family

In a joint family, all the members help one another with the household work.

So, we see that **in a nuclear family, there is only a mother and father and their child or children. In a joint family, there is a mother and father living with their children, father's parents and even father's brother and his family.**

Nowadays, we see more **nuclear families** than **joint families**.

#### Explore and Write:

Number of nuclear families in your neighbourhood : .....

Number of joint families in your neighbourhood : .....

Also, discuss in the class, how many members are there in each family and how do they divide the household work among themselves.

#### The main reasons for the formation of nuclear families are—

1. **Migration:** Families are migrating from villages to cities in search of better livelihood and higher education for children.
2. **Scarcity of space:** In cities, there are mostly small houses with few rooms. So, only a few family members can stay together. Therefore, joint families are divided into nuclear families. The space is so small that when a son gets married, he has to leave the house with his newly-wed wife.
3. **Other reasons:** Differences in the habits and behaviour of family members, economic conditions of earning members, capacity to spend and continuous changes in the ways of celebrating festivals, have led to the division of joint families into nuclear families.

With the passing time, there has been many changes in the ways of celebrating festivals. For example,

1. Diwali, the festival of lights, was celebrated traditionally with *diyas* and sweets. Nowadays, people burst lots of harmful crackers, which cause noise and air pollution and injuries due to fires.
2. Holi, the festival of colours, was celebrated by burning the evil Holika. Victory of good over evil was celebrated by playing with dry colours. Nowadays, people play with colours made from harmful chemicals and throw water balloons which can be dangerous to those they hit.

Instead of celebrating the festivals in traditional ways, new ways of celebrating festivals are bringing negative changes.

## Shifting From Place To Place

### 1. Migration

One day, all of us sat around our grandparents. We wanted to know more about our family. My grandfather told us that he was born and brought up in **Lahore** (now in **Pakistan**). He completed his schooling in Lahore. In 1947, India became **independent** and **partition** took place. The entire family had to **migrate** (i.e., leave their home and move permanently to a new place) from Lahore to Rajkot. They had to leave behind all their belongings and property in Lahore.



Migration

### 2. Immigration

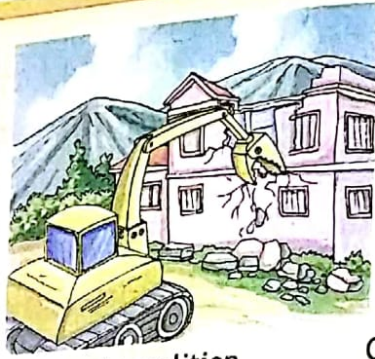
My youngest uncle is a doctor. He completed his higher education in USA. My aunt is also a doctor. They have one child— Nishant. They live in USA and often come to India to meet my grandparents and the entire family.

### 3. Transfer

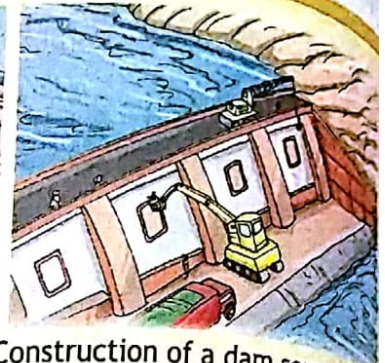
My father is a Central Government officer. He gets transferred every three years. So, we have to shift from one place to another. We have travelled to many places and received education in different schools.

## DO YOU KNOW?

Sometimes, during the construction of bridges, dams and highways, land is taken away from people. They are then given land somewhere else. This is called displacement. Sometimes, the government destroys houses and buildings built on unauthorised land. This is called demolition. People living in such places have to move to a new place.



Demolition



Construction of a dam sometimes leads to displacement.

## Foster Parents And Adopted Child

Nitika's uncle lives in Mumbai. Earlier, her uncle and aunt did not have any child. They love children. Nitika's father advised them to adopt a child. So, they went to an orphanage. They adopted a girl child. They named her Monika. They have become her foster parents. Today, she is nine years old. She is studying in class IV in a reputed public school. She is the centre of joy and happiness in her family. Nitika and Monika are cousin sisters. They play together when they meet. **When legal protection is given to any relative's child or any other child, it is called adoption.**



Monika with her foster parents



A newborn baby

## New Member In The Family

Vandana is very happy today. Her father is also happy. There is great excitement in her family. Her mother has given birth to a baby boy. Vandana's grandparents have come to stay with them to look after her mother. Every member of the family is overjoyed to have a baby at home. Vandana now has a brother. She has named him Ravi. He resembles her father and smiles like her mother.

Vandana loves her brother very much. She helps her mother and father look after him. She seats him in her lap. She helps in changing his clothes. Now, Vandana has one more family member. Her family consists of her newborn brother Ravi, father, mother and of course, Vandana herself. Vandana's family is a small family. It is a nuclear family. In contrast, Vandana's mother lived in a big joint family when she was young. She had three brothers and two sisters.

### Think and Answer:

1. If you live in a nuclear family and your mother goes out of station for 2 -3 days, then how would you feel?
2. For taking care of those children whose parents are not alive, the government has established schools/orphanages/hostels. Have a discussion with your teacher about the same.

### Tick (✓) the correct option

1. Which of the following is a reason for the formation of nuclear families?  
(a) migration  (b) strong bonds   
(c) both (a) and (b)  (d) none of these
2. People who adopt a child/children become  
(a) grandparents  (b) foster parents   
(c) aunt and uncle  (d) none of these

### Thinking And Looking Alike

I look very similar to my mother. I talk, walk and even smile like my mother. I sing just like my mother. Our voices are very similar. My brother looks like my father. My brother laughs just like my father. My relatives say that my mother behaved just like me when she was as old as I am now.

My uncle also looks very similar to my father.

My cousin brother resembles my uncle. My father and uncle behave like my grandfather.

Bhawana understands that we resemble our parents or other members of our family in terms of physical characteristics like resemblance in features such as eyes, nose, hair, ears and complexion. We also resemble them in terms of habits such as way of talking, walking and mannerisms.

**Physical characteristics (characters or features) are inherited by children from their parents. These characters are called hereditary characters. The transfer of characters from generation to generation is called inheritance.**

Some characters are acquired from the surroundings but these are not inherited.



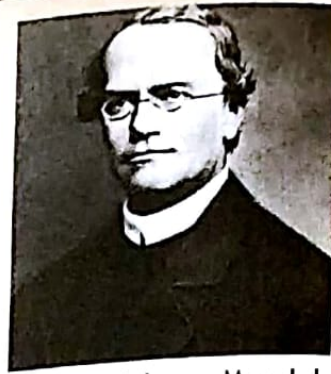
Looking alike in a family

## We Must Know



**Gregor Johann Mendel** worked with seven characteristics of pea plants (like pea plant's height, seed shape and colour) and formulated the 'Laws of Inheritance'. For his excellent work, he is known as the '**Father of Genetics**'.

**Dr Har Govind Khurana** was an Indian American scientist. He was awarded the Noble Prize for his role in finding out the genetic code that was responsible for the inheritance of characters. He was also responsible for the construction of the first artificial gene.



Gregor Johann Mendel



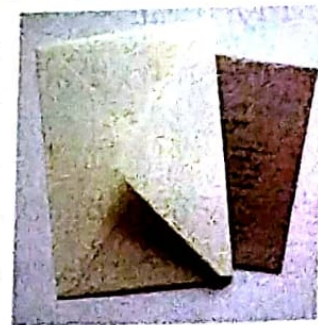
Dr Har Govind Khurana

The process of inheritance of characters exists in plants and other animals too. That is why a lion is able to recognise its cub and a cow recognises its calf. Actually, every organism inherits some characteristics from his/her parents but a few characteristics are different. Even in the case of twins, some characteristics are different. You will study about the reason behind this in higher classes.

### Explore and Answer:

1. Your physical characteristics resemble which member of your family? Write down in your notebook.
2. Your habits resemble the habits of which member of your family? Write down in your notebook.

After we came back home, I wrote **letters** to my grandparents and cousins in Rajkot. We usually communicate with them via telephone. We also exchange **greeting cards** with them on special occasions, such as Diwali, Holi and New Year. Another way by which we communicate with them is via **e-mail**.



Letter



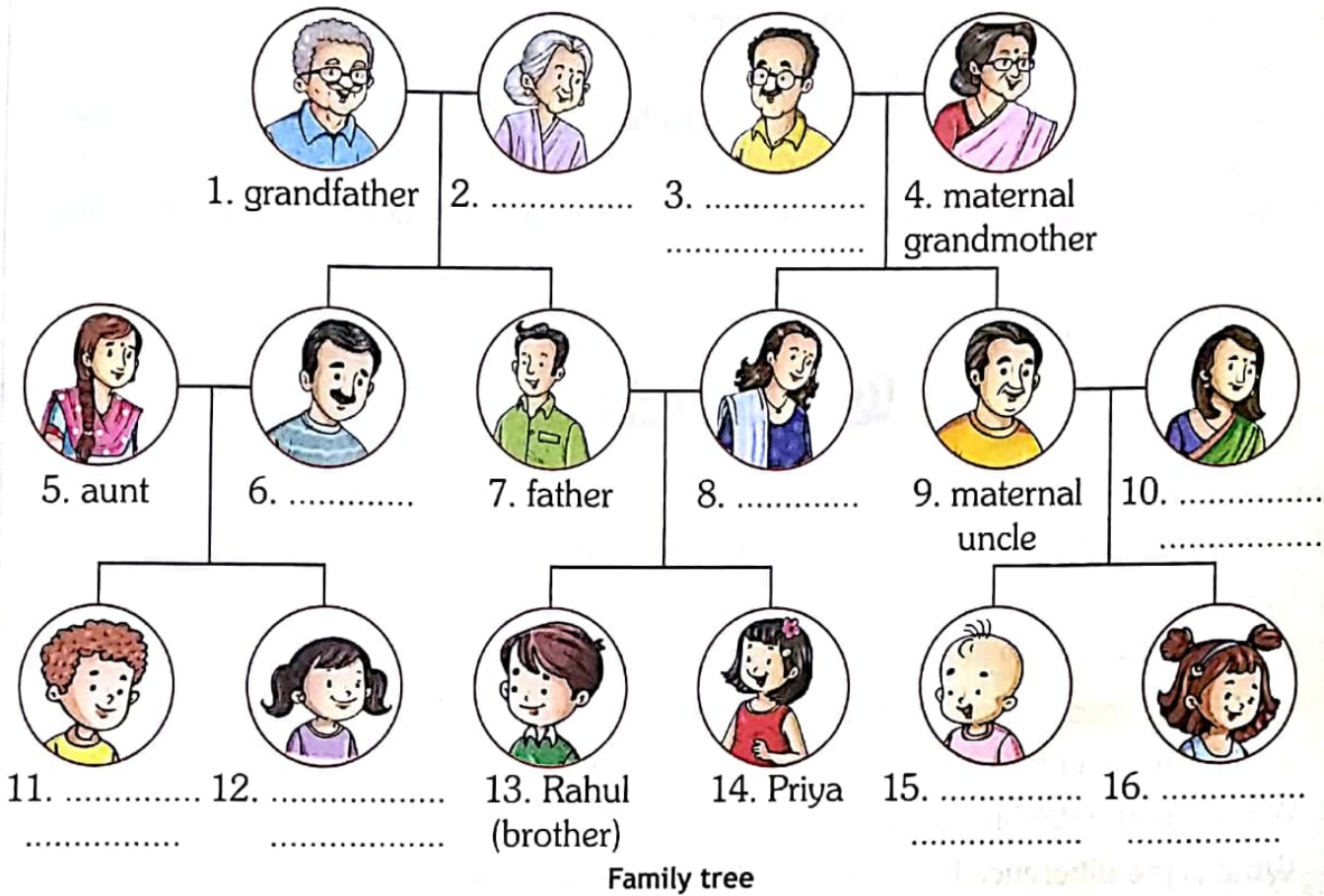
Greeting card

My father told me that we must try our best to strengthen the bond between our family members and us. He said that we can strengthen this bond by caring for our parents, giving due respect to our elders and loving our younger brothers and sisters. Above all, we must never hurt the feelings of our family members. We should cherish them. There are many ways to show that we are dutiful, thoughtful, grateful and loving children. Our foremost duty is to pay attention to our studies and do well in our class. When we study hard, our parents are very happy.





Look at this family tree. Name the relationship Priya has with the following members of her family.



**Points for Discussion:**

1. What are the reasons for the formation of nuclear families?
2. What is the difference between a nuclear family and a joint family?
3. With the passing time, what are the changes in the ways of celebrating festivals?
4. How does a cow recognise its calf?
5. How does your mother recognise you in a crowd?



**Let Us Revise**

1. In a nuclear family, there is only a mother and father and their child or children. In a joint family, there is a mother and father living with their children, father's parents and even father's brother and his family.
2. The main reasons for the formation of nuclear families are migration, scarcity of space, differences in habits, etc.
3. People shift from place to place due to migration, immigration and transfer.

4. The physical characteristics are inherited by children from their parents. These characters are called hereditary characters.
5. The transfer of characters from generation to generation is called inheritance.
6. Gregor Johann Mendel is known as the 'Father of Genetics'.
7. Dr Har Govind Khurana was awarded the Nobel prize for his work regarding inheritance characters.
8. We can communicate through letters, by exchanging greeting cards, through telephone or via e-mail.

## **Exercise**

### Learnt, Understood And Now Tell:

1. The transfer of characteristics from one generation to another is known as \_\_\_\_\_.
2. Write the names of any two scientists who worked in the field of genetics.
3. From where do we get the genetic characteristics?
  - (a) From grandparents (paternal)
  - (b) From grandparents (maternal)
  - (c) From parents
  - (d) All of these
4. What is your relation with your mother's sister?
5. What is the difference between a nuclear family and a joint family?

### Additional Questions for Practice

#### Observation and Recording

1. Study the given picture and tick (✓) whose picture is this. **(Picture based question)**



- (a) Gregor Johann Mendel
- (b) Dr Har Govind Khurana
- (c) Rakesh Sharma
- (d) G N Ramachandran

2. Make a list of any three ways to keep in touch with your relatives.

#### Communication (Expression/Discussion)

3. Why is our family considered our first school?
4. How do you spend time with your cousins during your vacations?

## Classification

5. Match column 'A' with column 'B' by drawing lines.

### Column A

- (a) Father's brother
- (b) Small family
- (c) Shifting to USA
- (d) Diwali
- (e) Festivals

### Column B

- (i) immigration
- (ii) festival of lights
- (iii) celebration
- (iv) uncle
- (v) nuclear family

## Explanation/Analysis

6. What is a big joint family?

## Questioning/Inquiring

7. Look at the picture of a big joint family and write three questions to obtain more information about it.



## Concern towards Justice and Equality

- 8. How is the celebration of festivals harming our environment nowadays?
- 9. Why should childless parents be encouraged to adopt a child?

## Honouring Each Other's Work and Appreciating Each Other's Qualities

- 10. How can we strengthen the bond between our family members and us?
- 11. How can you support your family members when they need you? Give an example.

## Things To Do

- Draw the following table in your notebook and complete it:

Family Members	They live with you or somewhere else (write the name of the place)
Grandfather ( <i>Dadaji</i> )	.....
Grandmother ( <i>Dadiji</i> )	.....
Elder Uncle ( <i>Tauji</i> )	.....
Elder Aunt ( <i>Taiji</i> )	.....
Father	.....
Mother	.....
Younger Uncle ( <i>Chachaji</i> )	.....
Younger Aunt ( <i>Chachiji</i> )	.....

- Collect information about adoption and the legal process of adoption in India. Prepare a write-up of about 300 words.



# Migration Of Families

Use *Cordova Smart Class Software* on the *smart board* in class to make learning enjoyable.

Nitika's family was living in Ahmedabad. Her father got transferred to New Delhi. Nitika had to shift to New Delhi and join a new school there. **Families shift from the place where they are living to a new place. This is called migration of families.** There are many reasons for migration. People migrate due to economic and educational reasons and for better facilities and rehabilitation.

## Economic Reasons

Jeetu's family lived in a village. His main occupation was agriculture. He had a small piece of land for growing crops. He was very poor. It did not rain last year and drought was declared in the village. The crops had failed as he did not have any irrigation facilities to water his field. He had no other means of earning. All the villagers were affected by the drought. He could not find any job in the village. His family was facing hunger because they did not have sufficient food to eat. Jeetu had no choice but to shift from his village and migrate to his elder brother's village, with his family and cattle. There, he rented a small house and started searching for a labourer's job. After a few days, he found work and started living in that village with his family. However, it was not at all easy for him to live there. He found himself isolated in the new village. He was made to work extremely hard and was paid very little. He lost his identity in the new village. He started missing his village. One day, he got a news that his village experienced good rainfall that year. Therefore, he returned to his own village along with his family and cattle.



## Education

Dhiren is working as a labourer in Santu's field in a village. He is getting less money. He has a son Mehul and daughter named Pooja. Mehul is studying in class 12 and Pooja in class 10. His village, like most villages in rural areas, lacks higher educational facilities. There are no colleges in the village. With all his hard work, Mehul passes the senior secondary examination with 95% marks. Mehul gets a scholarship from Rajasthan University in Udaipur. Dhiren decides to send Mehul to Udaipur for higher education. He wants Mehul to study hard and become a successful man one day. But, he thinks that if his son goes to the city away from his family for higher education, then the expenditure of his family would increase. He would not be able to afford the expenses. Ultimately, he decides to migrate to Udaipur. When he reaches the city, he first finds a small house away from the city. He also gets a job in the city as a labourer on daily wages. To earn more, his wife Sheena also starts working as a labourer at a construction site near their new house. Mehul joins the college and Pooja joins a nearby government school. The school gives free books, free education, free uniforms, free stationery to Pooja. Pooja is also happy in her new school. But, Dhiren is missing his village. So, he decides that once Mehul and Pooja complete their education in Udaipur, he and his family will go back to their village to spend the rest of their lives there.



A school in a village



A school in a city

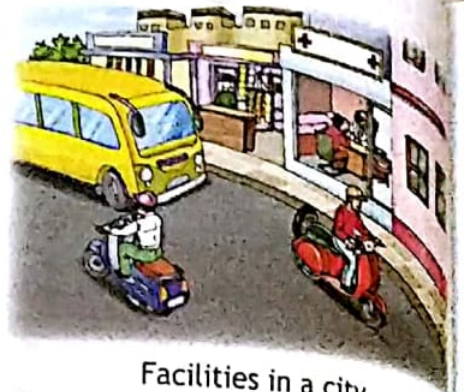
### Points for Discussion:

1. Is there any person in your family or in your vicinity who went out of his hometown or shifted in your area from some other place for his studies?
2. If you have to shift to some other place for studies, then what things will you take along with you?
3. If there are some students of your school living in a hostel for their studies, then gather information about them like what type of work do they have to do on their own, etc.
4. People migrate from one place to another. How do their children complete their studies?
5. What facilities/arrangements do people have to make, when they want to settle down at some new place?

### Better Facilities

Jariya and his family lived in a village near Kota. He had two sons. He had some

agricultural land. But, the village did not have proper roads, big hospitals and colleges. Hariya's elder brother worked in the city. Looking at the condition of the village and the poor facilities available there, he took Hariya's sons to Kota city. He assured Hariya that he would take good care of both his sons by providing them with the best educational facilities in Kota. Hariya's sons studied very hard. They completed their higher



Facilities in a city

education and ultimately, got good jobs in the city. They were paid handsome salaries. They bought a big new house with excellent facilities. They called their parents to settle forever in Kota. City life has excellent facilities in regard to transport, communication, trade and healthcare. But, the parents missed their parental village. Now, they visit their village on special occasions like marriages and festivals.

## Rehabilitation

There was a town named Galiakot in Dungarpur district. Due to the construction of the Kadana dam on River Maahi in Gujarat, this area became a low-lying area. Kadana dam was constructed to produce hydroelectricity, control floods, store river water for irrigation purposes and provide water during summers and droughts. As the construction of the dam proceeded, water started accumulating in the town. Therefore, the government asked the people to leave the town immediately because at anytime, the town could be submerged under water. The government constructed houses for these people at a distant place and also opened new schools and hospitals there. Today this place is known as a **Rehabilitation colony**. Sometimes, the government destroys houses and buildings built on unauthorised land. This is called **demolition**. The people living in such places have to move to a new place.



Demolition



Construction of a dam sometimes leads to displacement.

### Think and Answer:

1. Due to the construction of the dam, the people living in that area had to leave their homes. Why?
2. Why are the dams constructed?
3. If you are given a responsibility to rehabilitate people in a new place, which facilities will you provide to them?



**Tick (✓) the correct option.**

1. The shifting of families from the place where they are living to a new place is called  
(a) migration  (b) settlement  (c) immigration  (d) emigration
2. When the government provides a new house after demolishing the old house, it is called  
(a) rehabilitation  (b) demolition  (c) migration  (d) none of these

In the previous chapter, we learned how Bhawna's grandfather migrated from Lahore to Rajkot at the time of partition. They had to leave behind all their belongings and property in Lahore.

The entire family faced many problems after reaching Rajkot. They had to spend many days in tents and school buildings. There was **shortage of food and drinking water**, and poor sanitary conditions. Bhawna's grandfather received assistance from the local people and the government to set up a small business. His family was big. There were seven members in his family. Bhawna's grandparents, their three sons (Bhawna's father and two uncles) and two daughters (Bhawna's aunts) lived in a small house. After a few



Migration



Living in tents

months, her grandparents, father and two uncles started a small business. It flourished and everybody worked and lived together as a united family. They strengthened their bond by giving respect to the elders and showering love on the young ones.

**Think and Write:**

Is there any family in your vicinity (neighbourhood) that migrated to some other place or has settled in your area after migration from some other place. Collect the following information and write your answers:

1. From/To which place has the family migrated?
2. What is the reason for their migration?
3. How many members are there in their family?
4. Who helped them?

**Explore and Answer:**

1. Who are the people in your vicinity, living in the same place for more than 10 years?
2. What is the difference between their homes and the homes of the families who change their place continuously?

3. During rainy season, which families in your surroundings leave their home and live in their fields for agriculture?
4. During that time how do their children go to school from there?
5. Who brings the things required for them for their daily use?
6. Are there any people in your village/city, who live in shelters like tents or sheds or make their vehicles/carts as their homes?
7. How many such people are there?
8. What type of work do they do?
9. Where do their children study?
10. What are the reasons for the displacement of these people?



### Let Us Revise

1. The shifting of families from the place where they are living to a new place is called migration.
2. People migrate due to economic and educational reasons and for better facilities and rehabilitation.
3. When the government provides houses for people, in another place, with facilities like hospitals and schools, after demolishing their original homes, it is called rehabilitation.



### Exercise

#### Learnt, Understood And Now Tell:

1. According to this chapter, what are the reasons due to which people leave their homes?
2. Apart from the reasons mentioned in this chapter, what are the other possible reasons due to which people migrate to settle at other places?
3. When people settle down at a new place, what problems do they have to face during the process?

#### Additional Questions for Practice

#### Observation and Recording

1. Study the picture given below and tick (✓) the incident it conveys.

(Picture based question)



- (a) demolition
- (b) rehabilitation
- (c) migration
- (d) construction



## Communication (Expression/Discussion)

2. What are the facilities provided by the Rajasthan government to students studying in a government school?
3. What are the facilities provided in a rehabilitation colony?

## Classification

4. Match column 'A' with column 'B' by drawing lines.

### Column A

- (a) Scarcity of rainfall
- (b) Working on daily wages
- (c) Mode of communication
- (d) Displacement of people
- (e) College

### Column B

- (i) telephone
- (ii) construction of dam
- (iii) drought
- (iv) higher education
- (v) labourer

## Explanation/Analysis

5. How does drought affect farmers?
6. Why do people migrate from villages on account of higher education?

## Questioning/Inquiring

7. Why do villagers prefer to live in cities? Give five reasons.

## Experimenting

8. How will you cope with your new school in a new city?

## Concern towards Justice and Equality

9. What steps should be taken by the Government for the people who are affected by the construction of a dam?

## Honouring Each Other's Work and Appreciating Each Other's Qualities

10. What basic facilities should be developed in villages in order to stop people from migrating to other places?

## Things To Do

- Make a poster on the subject 'HAPPY FAMILY' and put it up in your classroom.
- Discuss in class: 'Five ways of helping your grandparents or the elderly in your neighbourhood'



# We Are Special

Use Cordova Smart Class Software on the smart board in class to make learning enjoyable.

Most of us are lucky that we can see, hear, feel and touch things around us. We have a healthy body and mind. But some people are not so lucky. They do not have a healthy body or mind or both of these. There are people who cannot see (blind). There are those who cannot hear (deaf) or speak (dumb) or walk (handicapped). These are **special people** because they need special care.

## Blind School

Recently, we visited a blind school. We took biscuits, cakes and sweets for the visually challenged (blind) people. Most of them carried a white stick. They use the stick to feel their surroundings when they walk. We were surprised to see them move around the place as if they could see. Most of them do their work themselves. When we tried to help them, they politely refused.



Children in a blind school

We also saw some blind children reading books. We also saw blind children making colourful candles and artificial jewellery. Some were carving wood. Some children were singing and playing musical instruments. We were impressed with their talents. We are now thinking of having these activities in our school.

Point for D  
How do pec

Activity

Take a piece of stick pieces her to identify Can he/she thick wool.

Activity

Take a thick various letters blindfolded read the sentence Can he/she visually impaired

Activity

Keep different in appearance friend and to identify closed. Can your

Similarly, the alphabet script called

Braille the letters are formed

### Point for Discussion:

How do people who are unable to see read books?



#### Activity 1

Take a piece of thick cardboard. Draw the figure of a duck on it. Now, stick pieces of thick wool on the figure. Blindfold a student and ask him/her to identify the figure by moving his/her fingers on the cardboard.

Can he/she make a correct guess with eyes closed? Yes, by touching the thick wool.



#### Activity 2

Take a thick piece of paper. With the help of a compass, write various letters at the top and one sentence at the bottom. Now, blindfold one of your classmates. Let him/her say the letters and read the sentence aloud by moving his/her fingers on the paper.

Can he/she do this task easily with eyes closed? This is how the visually impaired manage to read — by touching.



#### Activity 3

Keep different types of pens, pencils and sketch pens, similar in appearance, in a bag made of a thick cloth. Blindfold your friend and ask him/her to put his/her hand in the bag and try to identify all the items in the bag one by one with his/her eyes closed.

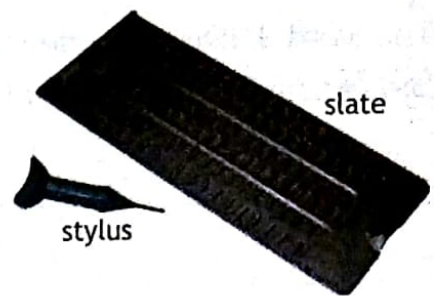
Can your friend identify those pens? Yes. He/she is able to identify by touching.



Similarly, people who cannot see, recognise the letters of the alphabet, by touching them with the help of a special script called **Braille script**.

### Braille Script

In Braille script, there are raised dots (indications) for all the letters (A, B, C ... X, Y, Z). The shapes of all the letters are formed with 6 raised dots.






























Braille script tools

A **slate** and **stylus** are tools used to write Braille script manually. The stylus is compared to a pen or pencil.

The **slate** is a metal or plastic guide that opens with a hinge (a movable part) at one end. It has a group of 6 dots, three dots each, in two columns. The stylus is a pointed pen with a metal pointer at one end and a wooden or plastic handle at the other end.

A thick sheet of paper is placed on a wooden slab. The slate is kept on the paper. The stylus is used to make holes in the paper. The resulting holes are the raised dots. After this, the paper is turned over and the holes made can be felt as raised dots on the other side. By touching these, whatever is written on that paper can be read.

For example, if you want to write letter 'A', then a hole is made with a stylus at the first dot. If you want to write letter 'C', then two holes are made with a stylus at the first two dots. Let us know the Braille alphabet and read the corresponding English alphabet for each letter.

 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	 Z

Braille script chart (Here, red dots indicate raised dots in the Braille script)



#### Activity 4

The word 'INDIA' is written below in Braille script. You can also try to write your name in Braille script with the help of the Braille script chart.



Braille script

Now, write your name in Braille script.

Name	○○	○○	○○	○○	○○	○○	○○	○○	○○	○○	○○	○○
	○○	○○	○○	○○	○○	○○	○○	○○	○○	○○	○○	○○
	○○	○○	○○	○○	○○	○○	○○	○○	○○	○○	○○	○○

## Invention Of Braille Script

**Louis Braille**, who was completely blind, invented the **Braille script**.

When Braille was three years old, he was playing in his father's workshop and injured his eyes. Though he was given the best medical care, it was not enough and soon an infection developed that made him completely blind.

Louis Braille was a brilliant student, but it was very difficult to teach him from books not meant for the blind and hence, it took a lot of time. He was taught using a special technique in a school for the blind.

One day, Braille's teacher, Charles Barber, a captain in the army, visited his school. He showed a script based on **12 raised dots** developed by him for the French army to communicate in darkness without making any sound, in the process.

Louis Braille was highly impressed by this script. He modified the 12 dots writing method into the six dots method (3 dots each, arranged in two columns). Therefore, his script developed by Louis Braille was given the name **Braille script**.

## DO YOU KNOW?

- The Braille script has undergone many changes. These changes have made reading and writing much simpler. The Braille script can now be written using a special computer.
- October 15th is celebrated as 'World White Cane Day' for the blind. The blind carry white canes (sticks) when they move around.

Tick (✓) the correct option.

1. Stylus which is used to write Braille script is similar to the

(a) pen



(b) table



(c) paper



(d) none of these



2. Braille script was invented by

(a) Charles Barber



(b) Anne Sullivan



(c) Louis Braille



(d) Stephen William Hawking



## Deaf And Dumb School

We visited a deaf and dumb school as well. Students at the school used a special sign language as a means of communication. They used different movements with their hands and fingers to communicate.

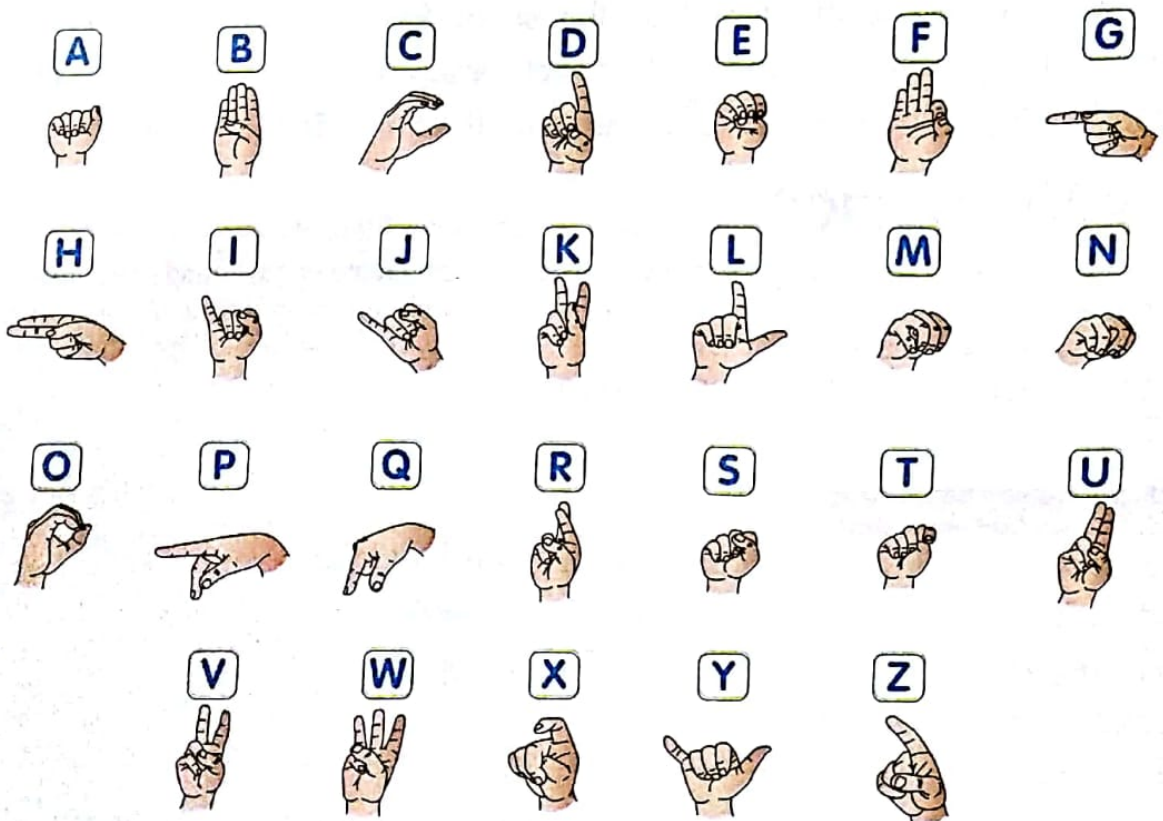


### Activity 5

Divide the class into two groups A and B. One of the members of group B will give a word to one of the members of group A, say, stand-up, come here and open the book. This member of group A will give the instruction and try to get the correct response by using gestures only and the members of group B will try to understand the expression by looking at his/her gesture and performance.

People who cannot speak and hear, use a special type of language called **symbolic language** or **sign language**.

The chart of symbolic language is given below. With the help of these pictures, try to make your classmates understand the word CLASS without speaking. You can ask more words like this.



Sign language

## Cerebral Palsy

Cerebral Palsy is a disease.

**Symptoms:** In this disease, all the parts of the body, such as hands and legs are fully developed but do not work properly. For example, a person with cerebral palsy has fully developed hands, but he/she is unable to lift a book kept in front of him.

**Cause:** The brain of the person is not well-developed and has no control over the organs of the body. The underdeveloped brain affects body movements and muscle co-ordination.

**Cure:** There is no cure for cerebral palsy. However, it can be managed by practising activities like reading, writing and playing. The brain starts developing and controlling the organs of the body. Gradually, the patient becomes normal although he/she cannot work at a normal speed like people not affected by cerebral palsy.

## Making Friends

Let us make all special children our friends. They need our support and care. Let us encourage them to study hard. We can help our friends who are unable to see (blind), speak (dumb), hear (deaf) or walk (handicapped), in many ways.

1. By interacting with them to keep them connected with us.
2. By helping them to complete all the given tasks in the class.
3. By being positive and patient, and showering love on them.



Making friends

### Think and Answer:

If there are any students in your class who are unable to see, speak or walk, in what ways will you help them?

## Helen Keller

Have you heard of **Helen Keller**? When she was 19 months old, she had high fever. This made her deaf and blind. She was a very intelligent child and wanted to educate herself. She began her special education in reading and writing with the help of her teacher, **Anne Sullivan**.

She quickly learnt to read using the **Braille system** and to write by means of a specially constructed typewriter. She learned to speak after just one month of study. Her teacher worked on Helen for years. Helen soon became a famous speaker and author. She gave lectures in Europe on behalf of the physically handicapped.



Helen Keller

## Stephen William Hawking

**Stephen William Hawking** suffered from a nerve disease. He could not walk and speak. He moved in a wheelchair and communicated through a voice created by a computer. Despite being unable to use pen and paper, he was able to solve difficult math problems mentally. He wrote many books on Science. He also co-authored children's science fiction, with his daughter Lucy, namely, **George's Cosmic Treasure Hunt** and **George's Secret Key To The Universe**.



Stephen William Hawking



### Let Us Revise

1. People who cannot see (blind), cannot hear (deaf), cannot speak (dumb) or walk (handicapped) are special people. They need special care.
2. People who cannot see recognise the letters of the alphabet by touching them with the help of a special script called Braille script.
3. A slate and stylus are tools used to write the Braille script, manually.
4. Louis Braille invented the Braille script.
5. People who cannot speak and hear use a special type of language called symbolic language or sign language.
6. Cerebral palsy is a disease in which the parts of the body, such as hands and legs are fully developed but do not work properly.





## Exercise

### Learnt, Understood And Now Tell:

1. Fill in the blanks:

(a) Braille Script was developed by \_\_\_\_\_ . It consists of protruded indications based on \_\_\_\_\_ dots.

(b) In Braille Script, a pointed \_\_\_\_\_ is used to write and is known as \_\_\_\_\_.

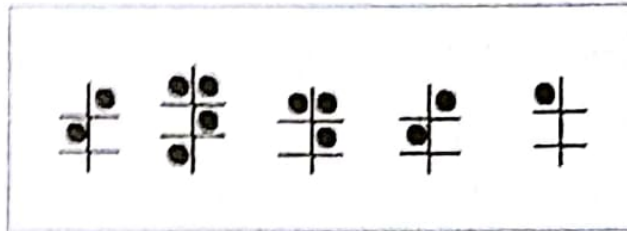
2. If there are people with special needs in your vicinity, then discuss with them and try to find out, in which type of work they have their expertise.

### Additional Questions for Practice

#### Observation and Recording

1. Study the picture given below and recognise the letter 'N' in Braille script.

(Picture based question)



2. List three categories of people who are called special people.

#### Communication (Expression/Discussion)

3. Why do blind people use a white stick?

4. How does a deaf and dumb person communicate?

#### Classification

5. Match column 'A' with column 'B' by drawing lines.

##### Column A

- (a) Braille script
- (b) Deaf and dumb
- (c) Unable to walk
- (d) Unable to lift a book
- (e) Stephen William Hawking
- (f) Charles Barber

##### Column B

- (i) handicapped
- (ii) cerebral palsy
- (iii) nerve disease
- (iv) slate and stylus
- (v) teacher of Louis Braille
- (vi) sign language

### Explanation/Analysis

6. What activities can blind children do?
7. How is a blind person able to read using the braille script?
8. Why does a person suffer from cerebral palsy?

### Questioning/Inquiring

9. Look at the picture of a handicapped child and write any three questions to know how you can help the child.



### Experimenting

10. How can you make a blindfolded friend recognise figures, letters and things?

### Concern towards Justice and Equality

11. What are the different ways by which you can help handicapped children in school?

### Honouring Each Other's Work and Appreciating Each Other's Qualities

12. How did Louis Braille develop the Braille script?

### Things To Do

- Find out about Missionaries of Charity (founded by Mother Teresa) or any other NGO. Observe how they work for the old, the sick or the handicapped.
- Keep different types of pens, pencils, sketch pens, etc., which are similar in appearance, in a bag made up of a thick cloth. Ask your friend to put his hand in the bag and try to identify any one of the items with closed eyes. In the same way, ask all your friends to recognise each item in turns. How did you identify those things?
- If there are any children with special needs, in your surroundings and they do not go to school, then encourage them and try to take them to school along with you.
- Stick a thick thread on the boundaries of any four states on the map of India. Then, close your eyes and try to recognise different states, e.g., Rajasthan, Gujarat, Jammu-Kashmir, Kerala, etc., by moving your finger over it.
- Are there people in your vicinity who achieved success in life despite physical impairments? Have a discussion with these people and try to know about their struggles in life.