

Hand book for

**Std 3**

**ENVIRONMENTAL  
STUDIES**



**RAINBOW**  
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## Textbook - Answers

### 1. Globes and Maps

- A. 1. Solar      2. Land, water and air      3. Flat  
4. Ferdinand Magellan      5. axis  
6. Globe      7. Brown, Green
- B. 1. False      2. False      3. False      4. True
- C. 1. Earth consists of land, water and air. Earth is the only planet where life is known to exist. So it is called a special planet.  
2. Globe is a small model of the Earth. It shows us the shape and location of the continents, oceans and seas on a smaller scale. The Globe is the best and most accurate way of showing the earth.  
3. Photos of the earth taken from outer space show that the earth is round. Also, Magellan a European sailor sailing westwards from a certain point reached the same place three years later. This is possible only if the path is circular.  
4. i - e      ii - a      iii - d      iv - c      v - b
- D. When it is day in India, America will have night. The Earth gets light from the sun. At a time only one half of the earth faces the sun. India and America are on opposite sides of the Earth. So when it is day in India, America will have night.

### 2. Weather

- A. 1. weather      2. storm      3. hottest      4. summer
- B. 1. soft and gentle wind      2. damage property and crops  
3. weather remains the same for a long period of time  
4. hot wind that blows in summer      5. rainy season
- C. 1. because clouds do not allow the heat of the earth to escape into the atmosphere.  
2. because the sun's rays fall straight and the sun is directly overhead.

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## Have fun and learn

- |            |           |           |             |
|------------|-----------|-----------|-------------|
| 1. weather | 2. floods | 3. radio  | 4. noon     |
| 5. Sun     | 6. spring | 7. wind   | 8. malaria  |
| 9. storm   | 10. trees | 11. igloo | 12. summer  |
| 13. season | 14. loo   | 15. gale  | 16. thunder |

### 3. Air and Water

- A. 1. Wind      2. gases, oxygen, carbon dioxide, nitrogen  
3. smoke, dust, germs      4. water      5. rain, snow
- B. 1. because plants absorb excess carbon dioxide from the air.  
2. because it is essential for all living things.  
3. because of the presence of salt in it.
- C. 1. ice      2. water      3. water vapour
- D. 1. Industries, factories and vehicles emit vast amount of carbon dioxide and other poisonous matter and thereby the air gets polluted.  
2. When we breathe in polluted air, we can fall sick. Pollution also creates an imbalance of gases in nature.  
3. i. by heating      ii. by heating      iii. by cooling

### 4. Living and Non living things

- A. 1. b      2. c      3. a      4. e      5. d
- B. 1. Plants breathe through pores and human beings through nostrils.  
2. A frog kept in a closed jar dies after sometime.  
3. Sun, soil and water are natural things.  
4. Mother hen lays eggs or A cow gives birth to a calf.
- C. 1. grow      2. sunflower      3. eggs, babies  
4. human beings      5. crawling      6. food

### 5. Plants and Animals

- A. *Similarities between Lion and man*  
1. Both live on land.  
2. Both breathe with the help of lungs.

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*Differences between Lion and man*

- 1. Lion moves on four legs, Man moves on two legs.
- 2. Lion eats only flesh of animals, Man eats both plants and animals.

<p>B. <i>Hen</i> gives birth by laying eggs has sense organs moves from place to place breathes through holes in the beak</p>	<p><i>Rose Plant</i> make its own food is fixed to the ground</p>
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**6. Parts of a plant and their functions**

- A. 1. (a) Tap roots (b) Fibrous root
- 2. (a) Carrot (b) Radish
- 3. (a) Spinach (b) cabbage
- 4. (a) Beetroot (b) Carrot
- B. 1. The main parts of a plant are roots, stem, flower, fruit and leaf.
- 2. The substance that gives green colour to the leaves is called chlorophyll.
- 3. & 4. Activity for children.

**7. Animals: Shelter and their food habits**

- A. 1. leaves 2. goat 3. hen 4. cheese 5. humans.
- B. 1. butterfly 2. elephant 3. mosquito 4. frog
- 5. cow 6. lion 7. rabbit 8. snake
- C. 1. Vulture 2. Giraffe 3. Rabbit 4. Butterfly 5. Fox
- D. 1. Animals need food to live and grow. It also keeps them fit and healthy. It provides them strength and energy to do work.
- 2. Grass eating animals like the cow, goat etc. swallow their food without chewing. Later while resting they bring the food back into their mouth and chew it well. This is called chewing the cud.

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- 3. When snakes swallow a large animal their jaws separate out and the mouth becomes very big.
- 4. Animals need shelter to protect them from the excessive heat, cold, rain and other preying animals.

**8. Say hello to the birds**

- A. 1. rakes 2. back, grip 3. webbed 4. hen
- 5. ostrich and emu 6. bill
- B. 1. Heron 2. Sparrow 3. Humming Bird
- 4. Woodpecker 5. Spoonbill 6. Parrot
- C. 1. Flesh eating birds have talons.
- 2. Duck and geese have webbed feet.
- 3. Some birds cannot fly.
- 4. Eagles and vultures eat rats and snakes.
- 5. Spoonbill uses its beak like a shovel to catch fish.
- D. parrot-2 eagle-1 flamingo-4 duck-3 ostrich-5
- E. 1. Birds change their feathers at least once a year. A few at a time, old feathers fall out and new ones grow in their place. This is called moulting.
- 2. Perching birds have three toes in the front and one at the back which curl round the branch to give a tight grip.
- 3. Ducks have webbed feet. The three front toes are joined by a thin skin. These feet act as paddles when the bird swims.
- 4. The talons, the sharp curved claws help the eagle to catch and eat its prey.
- 5. Birds also used their beaks to smoothen their feathers. This is called preening.

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## 9. Early humans

### Research Work

#### a. African Pygmies

- Location - Central Africa
- Food - Hunting animals/fruits from forests
- Clothing - Leaves of trees
- Habitat/Shelter - Hut made of leaves and sticks
- Climate - Tropical Climate

#### b. Inuits of the Arctic

- Location - Arctic region
- Food - Fish and meat
- Clothing - Animal skins
- Habitat/Shelter - Igloo
- Climate - extremely cold, ice bound

- A
1. apes, people
  2. nutcracker man
  3. Africa, Asia and Europe
  4. animals, wild fruits and roots
  5. stones
  6. animal skins, barks
  7. stones, wood, bones
  8. caves, trees
  9. lightning
  10. sticks, mud
  11. store houses
  12. natural colours, vegetable dyes.

### Words you must know

1. *Hunter - gatherers*: a group of people who live by hunting, fishing or picking fruits etc.
2. *Prowling*: to move or go about in search of prey.
3. *Clump*: a small group of plants.
4. *Sprouted*: grew quickly as a plant from a seed.
5. *Nomads*: members of a tribe that have no permanent dwelling place.
6. *Settled farmers*: people who have settled in a place and do farming.

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7. *Domesticated*: tamed animals that work for human beings.
  8. *Cultivated*: grow crops in a large scale.
  9. *Pottery*: earthenware or the art of making pots or vessels.
  10. *Vegetable Dye*: Dyes or colours obtained from plants.  
example: indigo, henna
- B. 1. Cow      2. Horse      3. Asses      4. Oxen      5. Dogs
- C. Dog : guards house, chases away small animals  
Ox : carries load, ploughs land  
Goat : provides milk, meat  
Hen : provides eggs, meat  
Horse : to ride, carry load  
Cat : catches mice, lizards

## 10. Sparkling Teeth

- A
1. no,milk,six
  2. ten,ten
  3. twice
  4. incisors, canines, molars pre-molars
  5. three
- B.
1. Biting teeth : Incisors
  2. Tearing teeth : Canines
  3. Grinding teeth : Molars
  4. Cracking teeth : Pre molars
  5. Milk teeth : Temporary teeth
  6. Thirty two teeth : Permanent teeth
  7. Presence of germs : Tartar
- C.
1. We should brush our teeth twice daily.
  2. Milk teeth are temporary. They fall out and are replaced by permanent teeth.
  3. Teeth and gums require regular exercise.
  4. The tooth is covered with a hard layer called enamel.

## 11. Festivals

- A
1. c
  2. d
  3. e
  4. b
  5. a
- B.
1. a
  2. c
  3. b
  4. c

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- C 1. Baisakhi 2. Dussehra 3. Guruparvas 4. Pongal  
5. Durga Puja 6. Diwali 7. Id 8. Holi
- D. 1. Republic Day 2. Independence Day

## 12. Beyond Earth, The Universe

- A 1. Planets 2. Pluto 3. atmosphere  
4. Rakesh Sharma 5. Sawai Jai Singh 6. revolution
- B. 1. as they appear to be hanging in space which is known as the 'Heaven'.  
2. because it is very small in size as compared to the other planets.  
3. because what we see is a very small part of the big earth.  
4. because the sun is the nearest star to the earth.  
5. because the water bodies make it appear blue from the space.
- C 1. 88days 2. eight minutes 3. 150,000,000 kms  
4. 5400°C 5. 28days 6. 1day  
7. 365  $\frac{1}{4}$  days.
- D. 1. Solar 2. same 3. round  
4. planet 5. west to east 6. seasons.
- E 1. Earth 2. Moon 3. Sun  
4. Bhaskara.

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## Workbook - Answers

### 1. Globes and Maps

- B. 1. geiod 2. flattened 3. equator 4. poles  
5. atlas 6. left 7. water
- C 1. Earth is the planet where life is known to exist, as earth consists of land, water and air.  
2. Because they can be drawn of any size. They can be easily rolled up, folded or carried.  
3. Because seventy percent of the earth's surface is covered with water and it appears blue from the outer space.  
4. Because we see only a small part of the earth at a time.
- D. 1. Hemisphere means half a sphere.  
2. (a) It is difficult to give detailed information on a globe.  
(b) It is not possible to see all the parts of the Earth's surface at the same time on a globe.  
(c) It is difficult to carry a globe around.  
3. This is because the earth is round and the path Magellan followed is circular.  
4. (a) Political maps show boundaries of countries, continents, states and important cities.  
(b) Physical maps show natural features like mountains, deserts, plains, rivers etc.  
(c) Maps show the crops grown or the minerals found in various places.  
(d) Maps show the distribution of rainfall.  
5. We cannot flatten out the earth's surface and show it accurately. Hence some errors will be noticed in the shape and size of places in maps.
- E (1) A globe is more accurate than a map.  
(2) The earth rotates on its axis.  
(3) Atlas is a book of maps.

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- (4) A map showing natural features is called a physical map.  
E (a) Dark blue (b) Dark brown (c) Yellow  
(d) Green (e) Light blue

## 2. Weather

- A 1. Sun, wind, clouds, rain 2. breeze 3. rainbow  
4. foggy 5. weather forecasting 6. thunder
- B 1. During the summer season the days are longer than nights.  
2. Spring season is the king of all seasons.  
3. Thunder is a loud noise.  
4. Extremes of weather is very unpleasant.  
5. It is not safe to travel on a foggy day.
- C 1. Weather is the condition of the air of a place at a particular time.  
2. The factors that affect weather are the sun, wind, clouds and rain.  
3. It is cooler in the morning and evening because the rays of the sun fall slanting.  
4. Floods can destroy crops and damage buildings. Flies and mosquitoes increase in number and spread diseases like cholera and malaria.  
5. Advance information about weather is called weather forecasting.  
6. When the weather remains the same for a period of time, it is called a season. There are four seasons namely summer, monsoon, winter and spring.  
7. Spring season is called 'the king of all seasons' because trees have new leaves with flowers in full bloom. Colourful birds and butterflies are seen everywhere. Nature is filled with a hue of colours.  
8. a) Extremes of weather make us feel uncomfortable.  
b) Weather affects the type of clothes we wear like cotton clothes in summer and woollen clothes in winter.

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- c) During hot weather, it is not possible to play outdoor games.  
d) Weather decides the type of house we live in. Sloping roofs are built where it rains and snows.

## 3. Air and Water

- A Sun, rivers, seas, heat, water, water vapour. Clouds, clouds, air, rain, water vapour, rain, ground, rivers, streams, sea, water cycle.
- B 1. atmosphere 2. humidity 3. oxygen, carbon dioxide  
4. water 5. Oceans, seas.
- C 1. False 2. True 3. True 4. False  
5. False 6. True
- D 1. Photosynthesis 2. solution 3. Solvent 4. solute  
5. Soluble substances 6. Insoluble substances.
- E 1. Oxygen is very important for all living things to live. We breathe in oxygen and breathe out carbon dioxide. Plants take in this carbon dioxide to prepare food and give out oxygen. Thus a balance is maintained in nature between oxygen and carbon dioxide.  
2. Walking or cycling instead of using cars, use of public transport like buses and trains, regular maintenance of cars to ensure that smoke is not emitted, checking vehicles for pollution control. Planting more trees.  
3. Smaller particles of a solid dissolve faster than larger ones. Stirring helps dissolve a solid faster. Heating helps dissolve a solid faster.  
4. Pour water on the salt and chalk powder and stir it. You will notice that salt has dissolved in water and chalk powder is floating on top. Strain the solution and you will get chalk powder.  
5. Container B will hold more water because it is broader than container A.

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#### 4. Living and Non-living things

- A. 1. Living things need food and water to grow.  
2. We need air to breathe. Without air we will die.  
3. Our sense organ help us to sense the world around us. Here the heat is felt by the skin.  
4. Living things reproduce Here the bird is sitting on the eggs to hatch them.  
5. Living things grow. A child grows into a baby who becomes an adult.  
6. Living things move on their own. Here the deer is trying to escape from the cheetah.
- B. 1. sheep, living            2. chair, non-living  
3. needle, non-living    4. parrot, living    5. cactus, living
- C. 1. Stone is a non-living thing and so it can not feel.  
2. No. because,  
(a) it is not moving on its own. We make them move.  
(b) we decide where and when it should move.  
3. because it is a non-living thing.  
4. Man-made things are made by man. They are not natural things.  
5. All natural things are not living. The mountains, rivers, stones, soil etc are non-living things.  
6. Living things cannot live without food. They need food to live, to grow and to give them energy.  
7. Karthik sensed the heat of the pressure cooker in his skin. He burnt his fingers.  
8. The easy chair cannot move on its own. It cannot feel.
- D. 1. dog - non-living                    2. chair - living  
3. elephant - non-living            4. lady - non-living  
5. sheep - non-living
- E. nil  
F. nil

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- G. (e) A cat chases a rat. (1)  
(f) The mother hen was sitting on her eggs keeping them warm. (2)  
(a) A butterfly kept in an air tight box will die. (3)  
(b) The old coconut tree fell on the car. (4)  
(c) A dog wags its tail when it is happy. (5)  
(d) An athlete eats glucose for extra energy. (6)  
(i) Aditya is a healthy boy as he eats plenty of fruits and vegetables. (7)  
(h) A cobra (8)  
(g) The banyan tree. (9)

#### 5. Plants and Animals

- A. 1. Can make its own food            (a) cannot make its own food  
2. Cannot move from                    (b) can move from place  
place to place.                            to place  
3. cannot be trained                    (c) can be trained to do work  
like carrying logs etc  
4. Helps in maintaining                (d) Does not help  
oxygen, carbon dioxide                in maintaining balance  
balance in air.                            of gases.
- B. 1. Plants make their own food with the help of air, water and sunlight.  
2. Plants breathe through the pores in their leaves.  
3. Whale is a mammal and so it breathes through its lungs.  
4. Mushroom and mould get their food from dead and rotting matter .  
5. Fish and frog lay eggs to reproduce.  
6. Touch-me-not plant responds to touch by folding its leaves.
- C. 1. (b) food                    2. (c) flower pot            3. (c) lion  
4. (a) mushroom            5. (a) eggs                    6. (b) fixed

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7. (c) pores                      8. (a) decayed things

9. (b) earthworm                10. (b) doll

D. Man is not superior to all other living things. This is because man is always trying to upset the balance of nature by cutting plants and killing animals.

E 1. (e) moves on four legs                2. (d) crawls  
3. (b) walks on two legs                4. (a) has a beak  
5. (c) has pores

G. 1. Fish                                      2. Using gills

### 6. Parts of a plant and their functions

A. Nil                                      B. Nil                                      C. Nil

D. 1. False                      2. False                      3. False                      4. False  
5. True                      6. False                      7. True                      8. False  
9. False                      10. True

E 1. because they have weak stems and grow only around some support.  
2. because they grow along the ground. They have weak stems and bear heavy fruits.  
3. because they have chlorophyll in them.  
4. because they prepare the food for the plant.

F Takes in from the sun - solar energy  
Takes in from the air - carbon dioxide  
Stem passes - water to the leaves  
Gives out - oxygen

The leaves are green due to the presence of - Chlorophyll

The green leaves with the help of carbon dioxide from the air, water and sunlight prepare food for the plant. This process by which a plant makes its food is called 'photosynthesis'.

G. Leaves prepare food for a plant.

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Leaves help a plant breathe by taking in oxygen.

Leaves store food eg. mint, cabbage, spinach.

H. ginger, sugarcane.

1. Stores extra food.  
2. Takes food produced by leaf to all parts of the plant.  
3. Carries water and mineral salts from root to other parts.

I. 1. LEAF                                      2. CHLOROPHYLL  
3. STOMATA                                      4. ROOT                                      5. FLOWER  
6. GERMINATION

J. a) Tap root                                      b) Fibrous root  
2. Tap root                                      Fibrous root

a. Has a main root with many small root hairs growing from its side                      a. Has a bunch of tiny root hairs attached to the stem

b. These roots are generally tiny and thick.                      b. These roots are of equal size.

3. a. Roots fix plants firmly to the soil.  
b. Roots take in water and mineral salts from the soil and pass them to other parts of the plant. Some roots like carrot, radish etc store food.

K 1. leaves, food-factory                      2. fibrous root, tap root  
3. root, minerals                      4. oxygen, stomata  
5. Flower                      6. weak

L 1. germination                      2. absorbs water and minerals  
3. ginger                      4. food factory                      5. changes to fruit  
6. protects the seed                      7. green substance in the leaf  
8. tiny pores on the lower side of the leaf.

M a. After four hours the white gladioli flowers would have slowly started becoming blue.  
After a day the white gladioli flowers would have turned blue.

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### 7. Animals shelter and food habits

- A. 1. kangaroo    2. fish    3. camel    4. lion  
5. sheep    6. dog    7. snake    8. butterfly  
9. rabbit    10. peacock
- B. 1. ruminants    2. herbivores    3. carnivores    4. beak  
5. proboscis    6. rodents    7. lap    8. canines
- C. 1. cow, goat, horse    2. lion, tiger, wolf  
3. bear, crow, human beings    4. cow, goat, buffalo  
5. snake, lizard, frog
- D. 1. herbivores - sheep, giraffe, zebra, deer, squirrel  
2. carnivores - lioness, panther, hawk, eagle, snake
- E. 1. a) Plant-eating animals: have sharp and broad front teeth to bite the grass, their back teeth are flat which help them to grind and chew the food.  
b) Flesh eating animals: have four sharp, pointed and slightly curved front teeth which help tear the flesh. Their back teeth are flat and strong.  
2. Frogs and lizards have long sticky tongue. They shoot out their tongues to catch insects. The insects get stuck to their tongues and they swallow them quickly.  
3. Animals that gnaw their food with their sharp front teeth are called rodents. Rodents nibble their food.
- F. Amit should provide a good shelter or kennel for his dog. He should keep the shelter clean. He should serve food and water in separate bowls. He should get his dog checked by a veterinary doctor.  
1. buffalo    2. lizard    3. butterfly    4. parrot  
5. rat    6. lion
- G. 1. A butterfly sucks nectar from flowers with its proboscis.  
2. Bears and rats are omnivores.  
3. A sick animal must be taken to a veterinary doctor.  
4. Lions have canines to tear flesh.  
5. A rabbit is a rodent.

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- H. 1. Carnivore    a. Herbivore  
2. yellow and black stripes    b. black and white stripes  
3. sharp, pointed, curved front teeth.    c. sharp, broad front teeth  
4. tear flesh, chew it and swallow bit by bit.    d. swallow food whole and later chew them.

### 8. Say Hello To Birds

- A. No    Yes    No
- B. Hoopoe    Vulture  
Owl    Hawk  
Swallow    Duck
- D. 1. feather    2. moulting    3. talons    4. webbed feet  
5. bill    6. ostrich
- E. 1. Swallows have short broad beak. They fly in the air with their beak open. This ensures that tiny flying insects get stuck in their mouth.  
2. It is a long hollow tube. The humming bird pushes its long slender beak into flowers and sucks the nectar.  
3. It is long and pointed. This helps the heron to pierce its beak into a fish and lift it out of the water.  
4. Hens get their food from the ground. They have sharp, hard claws with three toes in the front and one at the back for digging the ground to turn up insects and seeds.
- F. 1. Some birds eat insects and help control their number. Some birds help plants reproduce by spreading their seeds or carrying pollen from one plant to another.  
2. Bright colours help some birds to attract a mate (example: love birds). Colours also protect a bird from its hungry enemies (example: parrot).  
3. Flesh eating birds have sharp claws which they use for catching the animals they hunt. Their claws are called talons.

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- 4. Birds use their beaks to get their food, to smoothen their feathers and also to build their nests.
- 5. Some birds have a place near their tail, that gives off an oily liquid when it is rubbed. The bird first rubs this place and then rubs the oil through its feathers to make them smooth.
- 6. The woodpecker pounds or taps its beak against the bark of a tree. Thus the sharp pointed beak makes a hole in the bark of the tree and then the woodpecker eats the hidden insects.

### 9. Early Humans

- A.
- 1. Early humans first used stones to hunt animals.
  - 2. Early humans found it was not easy to hunt animals with stones and so they tried to make tools.
  - 3. They sharpened stones, made weapons using wood and bones of wild animals.
  - 4. To protect themselves from the sun, the rain and the wild animals, early humans lived in caves or on trees.
  - 5. While breaking and polishing stones, man could have accidentally produced a spark of fire.
  - 6. Fire helped early humans to cook food, to keep warm and also kept away wild animals.
  - 7. Early humans realised that cooked food or meat tasted better and softer than raw meat.
  - 8. Dogs helped the early man in hunting and chasing away wild animals.
  - 9. They used natural colours and vegetable dyes for painting.
  - 10. Discovery of farming helped them settle down in one place. Now there was no need to go about in search of food.
  - 11. As time passed their skills in pottery and weaving also developed.

- D.
- a) The woman is keeping herself warm by the fire.
  - b) The man is polishing tools made of wood and horns of animals.
  - c) The early man is painting on the walls of the cave.
  - d) The early man is hunting using wooden tools.

### 10. Sparkling Teeth

- A.
- |                           |             |
|---------------------------|-------------|
| 1. Front - Back           | 2. Twenty   |
| 3. Milk - Six - Permanent | 4. Exercise |
- B.
- 3. Food particles get stuck between the teeth. Germs in the mouth feed on these food particles. To help them digest the food they give out an acidic juice. This juice harms the enamel of the teeth and it slowly dissolves to form a cavity. Rotting food particles cause tooth decay.
  - 4. a) Milk Teeth: Start to appear when the baby is 6 months old. Generally the front teeth grow first and the back teeth appear later. By the time the child is two and half years, it has twenty teeth. These are the milk teeth.  
 b) Permanent Teeth: When the milk teeth start to fall off, the new set of teeth called the permanent teeth, grows in its place. The permanent teeth are thirty two in number.
  - 5. a) Eat food that is rich in vitamins and minerals like milk, ragi.  
 b) Eating hard and fibrous food will exercise the gum like chewing sugarcane.  
 c) Avoid eating sweet and sticky food between meals.  
 d) Rinse mouth after every meal to remove food particles from the teeth.  
 e) Brush teeth twice daily in the morning and night.
  - 6. b) Canines           tearing teeth           2    2    8  
 c) premolars       cracking teeth           4    4    8  
 d) molars           grinding teeth           6    6    12



- C. 1. because sweets are sticky and tend to get stuck between our teeth thereby causing tooth decay.
- 2. to remove the food particles that are stuck to the teeth.
- 3. because by the age of six they fall off and a set of permanent teeth grows in their place.
- 4. as rinsing removes stains and food particles from the mouth.
- 5. as the root of the teeth is fixed in the gums. Therefore just keeping our teeth clean is not enough, we also need to massage our gums.
- D. 3. a) Cow is a herbivore and so it has sharp, broad front teeth to bite the grass. Its back teeth are flat which helps it to grind and chew the food well.
- b) Tiger is a carnivore and hence has four sharp pointed and slightly curved front teeth. Its back teeth are flat and sharp which helps it to grind and chew meat and bones.

**11. Festivals**

- A. 1. a. Namaz      2. c. 26<sup>th</sup> January      3. c. Gandhi Jayanthi
- 4. b. Raj Ghat      5. d. Chacha      6. d. Guruparvas
- B. 1. National 2. Seviyan      3. Lights 4. President
- C. Diwali      Holi
- D. 1. *Diwali*: Diwali is a social festival whereas the other two are national festivals.
- 2. *Republic Day*: Republic Day is a National festival whereas the others are social festivals.
- 3. *Sports Day*: Sports Day is a school celebration whereas the others are National festivals.
- G. 1. On the Independence Day our Prime Minister hoists the National Flag. He then addresses the Nation and delivers a message.
- 2. A function is held at the samadhi of Gandhiji at Raj Ghat in New Delhi. The President, Prime Minister and others



- pay their respects and offer flowers at his samadhi. Prayers are held all over the country.
- 3. Diwali marks the day when Lord Rama along with Sita and Lakshmana returned to Ayodhya from Lanka after vanquishing Ravana in battle. This joyous reunion is celebrated as Diwali.
- 4. It is believed that Goddess Lakshmi brings peace and prosperity to the household that performs this puja. So Goddess Lakshmi is worshipped during Durga Puja.

**12. Beyond Earth – The Universe**

- 1. a) Pictures of earth taken from space show the earth to be round.
- b) During lunar eclipse the shadow of the earth falling on the moon is round. Only a round object can cast a round shadow.
- c) In a ship sailing away, the lower part disappears first from sight. The top part disappears last. This is because it is sailing on a round surface.
- 2. a) Movement of the earth on its axis.  
Movement of the earth around the sun.
- b) Takes 24 hours or 1 day for one rotation.  
Takes 365 ¼ days or 1 year for one revolution.
- 3. The Sun's light is reflected on the moon and so it appears to shine.
- 4. Some stars appear in groups. Groups of stars are called constellations. Great Bear, Scorpio, Leo are a few constellations.
- 5. When the moon revolves round the earth, different parts of the moon are lighted by the sun. We can see only the lighted part of the moon. Hence we see different shapes of the moon.

