

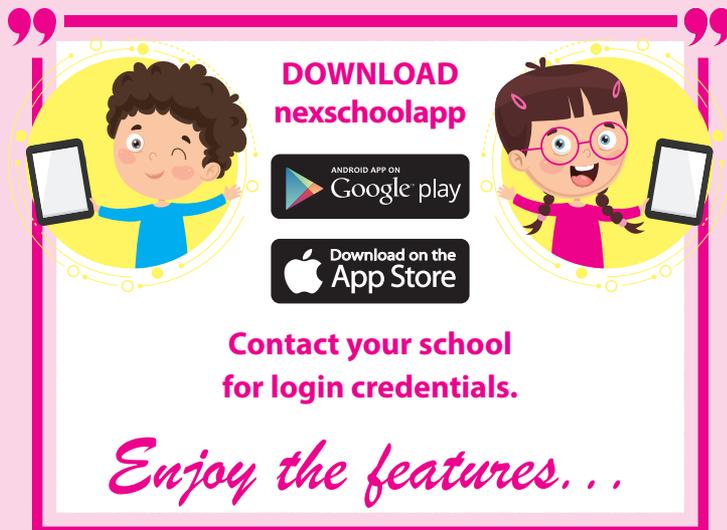
Kick-Start

Into the World of General Knowledge **SERIES**

5

Series Editor
Meera Ravishankar

“ ”



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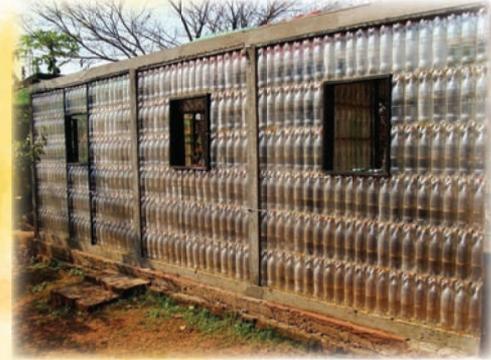
Students

- Animated videos
- The Rising Star
(Monthly Journal)
- KYN (Offline Quiz)

1

A house with a tale!

Let us go to Hyderabad, Telangana to see a strange sight. There is a different house, whose walls are made of not brick and mortar...but recyclable plastic. 2.5 tonnes of plastic waste was used to construct it. The roof alone is made of 5 million plastic bags. The house has one bedroom and a kitchen. The inmates say it doesn't get hot in summer.



Prashanth Lingam, 33 years old makes these eco-friendly houses. He is also the founder of 'Bamboo House', India. He first used bamboo as a cheap alternative for helping rural and tribal communities to make money. They were dependent on bamboo for livelihoods. He designed it as an eco-friendly substitute for wood, and iron and made the Bamboo House in Hyderabad.

He says, "Recycling of plastics is a wonderful business opportunity. Plastic cannot be stopped. It has to be either reused or it goes to landfill." He pays rag pickers to separate plastic waste. He also sought help from companies across India to collect plastic, shred and compress and make sheets out of it. As it is 25% more expensive than traditional homes he finds it difficult to get buyers. He also does plastic paver tiles which are a big hit. Hyderabad City Council is using the tiles to pave pedestrian paths. Each tile is made from 600 poly bags and costs less than 75 rupees! It could be a solution to turn garbage into gold!



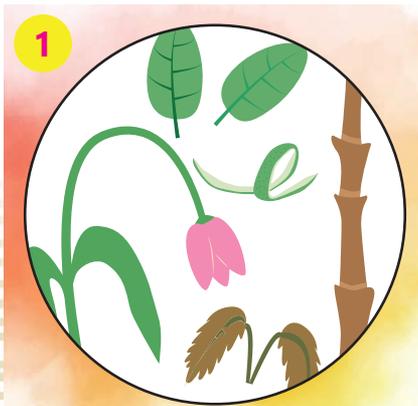
Activity time

A. These are pictures of various waste products. Name them.



Help box

- E – waste
- Wet waste
- Sanitary waste
- Garden waste
- Debris/Rubbish waste
- Dry waste
- Hazardous household waste



1



Train of thought

Lateral thinking helps us in solving problems by an indirect and creative approach of changing waste to value!



2



4



3



5



7



6

B. Tabulate the details of how to dispose different waste and how often?

Classification of waste	Name of waste (Give any 2 examples)	How to dispose?	Frequency
			
			
			
			
			
			
			

2

Goal setting



Train of thought

Staying focussed helps achieve goals faster

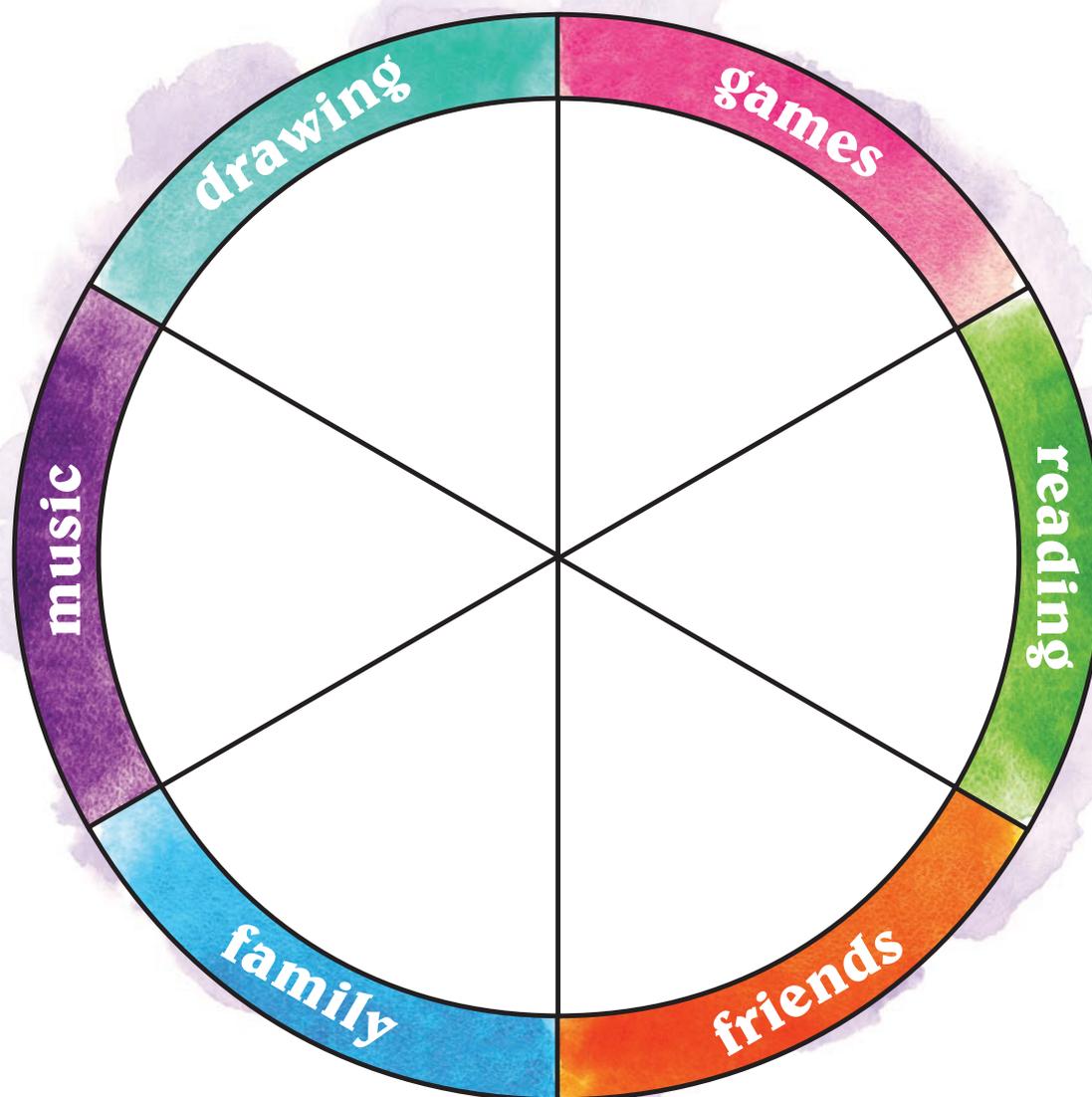
makes no difference

People who set goals are more successful.

You can set your goals by creating a fortune wheel.

1. Draw a wheel divided into **SEGMENTS**.
2. On each segment, write important categories in your life: Family, Friends, School, Games, etc.
3. Then choose one category that you would like to focus on first.
4. For this category, write out each goal you would like to accomplish to set in a period of time. **Example:** if the category is games – 'Tennis', you might write that you would like to practice at least three times a week, to improve your forehand, and learn to serve.

A. Complete this wheel by filling each segment with details.



5. Next, think of the steps you will take to achieve these goals and what obstacles you may face. What will you do to overcome them?

For each goal these are the steps you have to take:

My power of 'Yet'

I haven't learned how to...

YET!

SUCCESS!

Then this:

Then this:

Then I will do this:

I will do this first:

6. Colour and decorate the wheel however you like, and then hang it somewhere prominent.
7. As you reach your goals in one segment of the wheel, do something to **CELEBRATE**.
8. Repeat the process for each additional segment in the wheel.

3

Plastic man of India

Did you know that an Indian has already invented a method to build roads out of plastic waste?

R. Vasudevan, is called, the 'Plastic-Man' of India. He is a chemistry professor. He reuses plastic waste to construct better, more durable and very cost-effective roads. The roads are not affected by water during rains. He uses plastic waste and blue metal and makes them into prefabricated bricks. These bricks help to build the roads quickly.



The advantages are:

- Plastic will be used for a good cause.
- Allow roads to be built quickly.
- Provides durability to the roads.
- Lightens the surface load as plastic is lighter than traditional road building materials.
- Maintenance cost will be lower.
- Roads will be hollow.
- Easy to install cables and utility pipelines below the surface.
- Can be prefabricated in a factory and transported wherever needed.
- Shorter construction time and low maintenance.



Milieu

The world will be a better place if we can recycle plastic completely.



He has created 5000 kms of eco-friendly roads across 11 states in India. He was awarded the 'Padma Shri' in the year 2018.

Complete this crossword on recycling with the help of the clues given below.



Down

1. Soup cans are made of this; Superman is the "Man of _____".
4. A soda _____ is made from aluminium.
6. Recycled _____ may be used to make T-shirts; the word rhymes with "fantastic".
7. Tin is a type of this; "heavy _____" is a style of music.
10. Recycle, reduce and _____; rhymes with "snooze".

Across

2. Also called "rubbish" or "trash".
3. To _____ saves valuable resources.
5. This is made from bauxite ore; you can wrap food in this type of foil.
8. These are used to make paper; birds and squirrels live in them.
9. This is used to make bottles and is 100% recyclable; Cinderella wore a _____ slipper.

4

Nexgen Sports Women

Women have contributed in various sports in India.

Identify the women sports stars.



Yonder

Find the names of three more women achievers in sports.



She was born on 5 July 1995. She is an Indian professional badminton player. She became the first Indian woman to win an Olympic silver medal. She creates history by becoming the first-ever Indian to claim gold in BWF World Badminton Championships.

1

She was born on 9 January 2000, nicknamed the 'Dhing Express'; an Indian sprint runner from the state of Assam. She is the first Indian athlete to win a gold medal in a track event at the IAAF World U20 Championships.



2



She was born on 1 March 1983. She is an Indian Olympic boxer hailing from Manipur. She is a five-time World Amateur Boxing champion, and the only woman boxer to have won a medal in each one of the six world championships.

3



Help box

Sania Mirza P.V.Sindhu

Mary Kom Vinesh Phogat Hima Das

She is an Indian wrestler. She became the first Indian woman wrestler to win gold in both the Commonwealth and the Asian games.

4



She was born on 15 November 1986. She is an Indian professional tennis player. A former world No. 1 in the doubles discipline, she has won six Grand Slam titles in her career.

5

5

Fought for a Cause



Get a grasp

Freedom fighters used both violence and non-violence to win freedom for India.

India gained freedom after an immense struggle. Many leaders coined motivational slogans to inspire the people to fight for freedom. They are fondly called by their nicknames.

Name the freedom fighter.



a Lokamanya



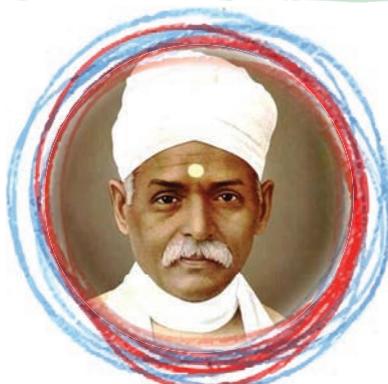
b Jhansi ki Rani



c Netaji



d Man of peace



e Mahamana



f Shaheed



Quiz time

- 1 Inquilab Zindabad!
- 2 Swaraj (self-rule) is my birthright and I shall have it.
- 3 Satyameva Jayate!
- 4 Give me blood and I will give you freedom.
- 5 Jai Jawan, Jai Kisan!
- 6 I will not let the British rule my state.

Slogans

Freedom Fighter



Help box

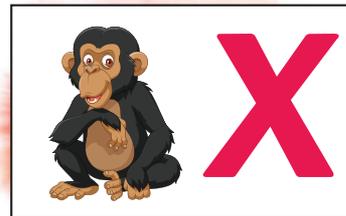
Madan Mohan Malaviya
 Rani Lakshmi Bai
 Subhash Chandra Bose
 Lal Bahadur Shastri
 Bhagat Singh
 Bal Gangadhar Tilak

6

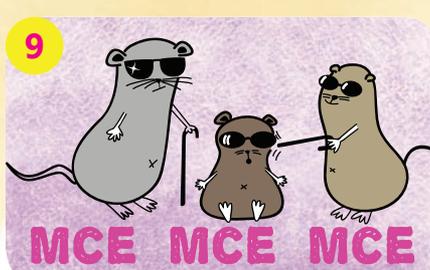
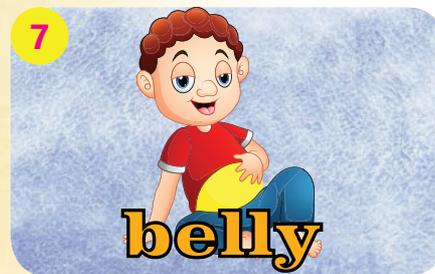
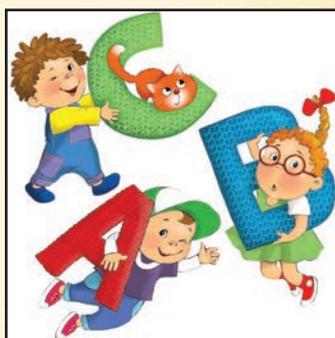
Rebus

Rebus is a puzzle in which words are represented by combinations of pictures and individual letters;

Example: Apex might be represented by a picture of an ape followed by a letter X.



Solve these visual word puzzles by looking for clues in the placement, colour, or number of words.



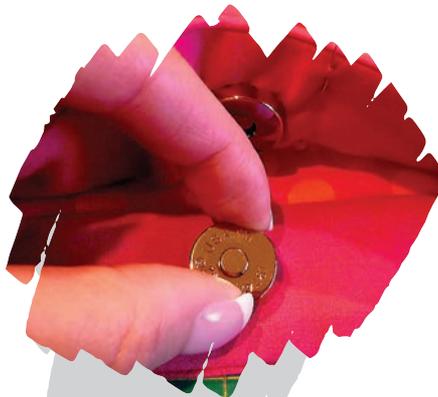
7

The Magnetic Pull

A piece of iron or any other material that can attract other objects containing iron is called a magnet. Magnets have invisible magnetic fields and are used in various products of everyday use.



Vacuum cleaners use magnets in their motors, as the suction of dust is greater.



Magnets are used in handbags to snapclose the bags easily.



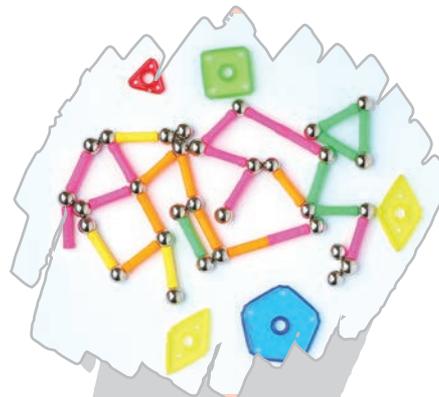
Magnets are used to click-close cupboard doors and refrigerator doors.



Telephones use small magnets in their microphones and speakers, to capture and emit sound.



Burglar alarms use a bar magnet to trigger the alarm, when a door or window is being opened.



Magnets are used in toys.

Quiz time

- 1 Magnets have invisible _____ fields.
- 2 _____ use magnets to suck dust.
- 3 Speakers emit sound with the help of _____.
- 4 Burglar alarms use _____ magnets to trigger an alarm.
- 5 Telephones use magnets in their _____ and _____.



Get a grasp

The Shanghai Maglev Train in China is the fastest train, with a top speed of 430 km per hour. Magnets are used to 'float' the moving train over the rails, to reduce friction and increase the speed.

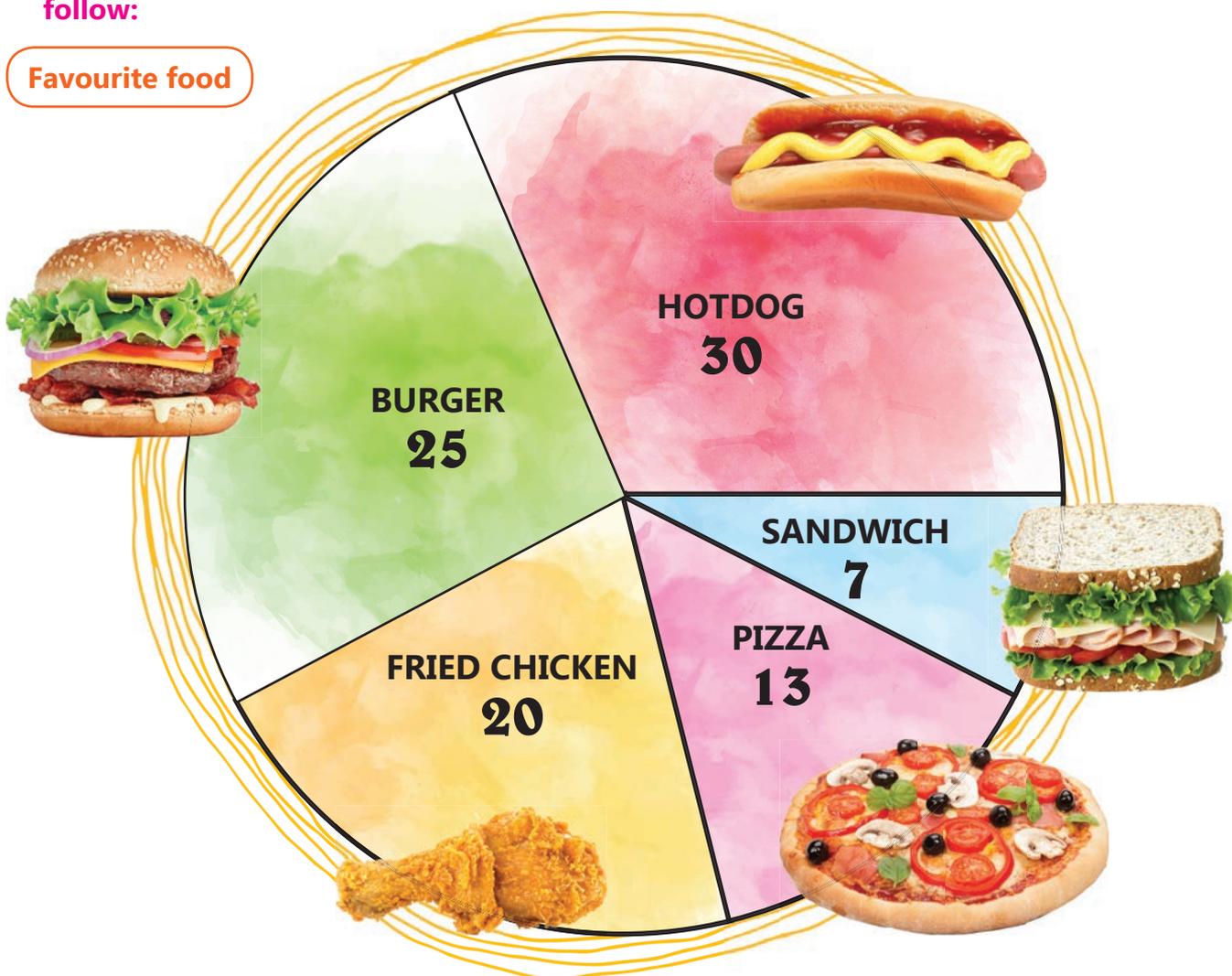
8

Data interpretation

In pie charts data is presented in the form of a circle.

A. Rock restaurant surveyed a sample of customers on their favourite food. They made a pie graph with the survey results. Look at the data and answer the questions that follow:

Favourite food



1. Which is the most favourite food amongst the customers? _____

2. How many customers like fried chicken? _____

3. Which is the least favourite food? _____

4. How many customers voted for burger as their favourite? _____

5. How many customers participated in the survey? _____

B. Mrs. Hema, teacher of Grade 5 recorded the favourite beach activities of her class. She made a pie graph based on the results. Study the data in the table and fill the graph.

Beach activities



Train of thought

Converting images into data and data into images is an integral part of critical thinking.

Favourite beach activity	Number of students
Playing beach ball	15
Kite flying	17
Collecting seashells	17
Sandcastle building	21
Surfing	30



C. Based on the graph, answer the following questions.

- Which activity is the least popular among the fifth graders? _____
- How many students like surfing? _____
- Which two activities are equally popular? _____
- Which activity is the favourite of 21 students? _____
- How many students like an activity more than sandcastle building? _____

Answers

Pages 05-07 A. 1. Garden waste 2. Dry waste 3. Wet waste 4. Debris and rubbish
5. Hazardous house hold waste 6. Sanitary waste 7. Electronic waste
B. 1. Fruit peels, tea bag - Compost - Daily 2. Plastic, wood - Give it to recyclers
- Weekly 3. Diaper, bandage - Wrap in newspapers, Mark + (Red cross) -
Daily 4. Dried plants, branches - Hand over to garbage collectors separately -
When required 5. Medicines, cosmetics - Give to specific recyclers - Fortnightly
6. Broken glass, construction debris - Give to pick-up agencies - As required
7. Tube lights, batteries - Give to specific recyclers - Fortnightly

Pages 10-11 Down 1. steel 4. can 6. plastic 7. metal 10. reuse

Across 2. waste 3. recycle 5. aluminium 8. trees 9. glass

Page 12 1. P.V. Sindhu 2. Hima Das 3. Mary Kom 4. Vinesh Phogat 5. Sania Mirza

Page 13 a. Bal Gangadhar Tilak b. Rani Lakshmi Bai c. Subash Chandra Bose
d. Lal Bahadur Shastri e. Madan Mohan Malaviya f. Bhagat Singh

1.f 2. a 3 e 4. c 5. d 6. b

Page 14 1. Adding insult to injury 2. A bit under the weather 3. The ball is in your court
4. Let the cat out of the bag 5. Beat around the bush 6. No one to blame
7. yellow belly 8. Take from the rich and give to the poor 9. Three blind mice
10. A green eyed monster

Page 15 1. magnetic 2. Vacuum cleaner 3. magnets 4. bar 5. microphones and speakers

Pages 16-17 A. 1. HOTDOG 2. 20 3. SANDWICH 4. 25 5. 95

B. 1. playing beach ball 2. 30 3. collecting seashells, kite flying 4. sandcastle
building 5. 30

Pages 18-19 1. Gary Kasparov 2. Bobby Fischer 3. Anatoly Karpov 4. Viswanathan Anand
5. Magnus Carlsen

Page 20 1. a. In all the other figures, lower-right quarter portion is shaded.
2. e. The arrowhead along the circumference of the circle indicates motion in an ACW
direction 3. d. All the other figures are divided into equal parts. 4. b one straight
line has been cut into half 5. b only 4 arrowheads.

Page 21 1. Peat 2. Bamboo fibre 3. Green tea 4. Tidal energy 5. Jatropha
6. Solar panels

Page 22 1. Gujarat 2. West Bengal 3. Madhya Pradesh 4. Karnataka 5. Odisha

Page 23 1. Seikan Tunnel 2. Thames Tunnel 3. Laerdal Tunnel 4. Channel Tunnel

Pages 24-25 1. Louis Pasteur 2. William Harvey 3. Nikolaus Otto 4. Isaac Newton
5. Alexander Graham Bell 6. Galileo Galilei 7. Charles Darwin

Page 26 1. Babitha Kumari 2. Sakshi Malik 3. Geeta Phogat 4. Bajrang Punia
5. Yogeshwar Dutt

Page 27 1. catfish 2. mudskipper 3. piranha fish 4. hatchet fish 5. archer fish

Page 28 1. TRUMPET 2. CYMBALS 3. PIANO 4. TIMPANI 5. FRENCH HORN 6. VIOLIN
7. TUBA 8. SAXOPHONE 9. FLUTE 10. TRIANGLE 11. XYLOPHONE 12. HARP