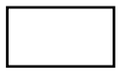
STD : IV KEY ANSWERS TERM : I

Lesson 1: GEOMETRY

Page No. 5

Just for Practice 1.1

1. Square
2. Rectangle
3. Triangle
4. Circle
5.

Name of the 2D shape	Shape	Object	Number of diagonals
Square		Chess board, face of a dice	2
Rectangle		Pencil box, envelope	2
Traingle		Traffic signal board	0
Circle		bangles, bicycle wheel	0

Page No. 7 and 8

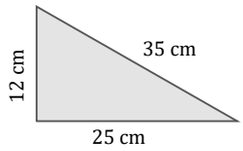
Just for Practice 1.2

1. a) 24 cm b) 72 cm c) 34 cm
2. Diameter = 32 cm, radius, $r = \frac{d}{2} = \frac{32}{2} = 16$ cm
3. 5 cm
4. using rope and chalk, using bangles, rings etc.
5. Left to students
6. Left to students
7. Left to students

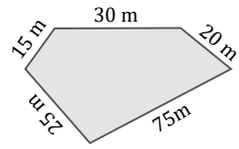
Page No. 9 and 10

Just for Practice 1.3

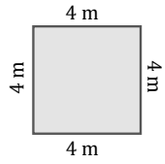
1. Find the perimeter of each of the following figures:

a. 

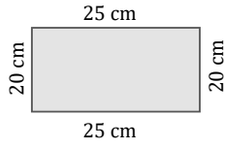
Perimeter = (12 + 35 + 25) cm
= 72 cm

b. 

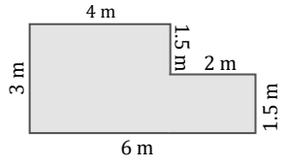
Perimeter = (30 + 20 + 75 + 25 + 15) m
= 165 m

c. 

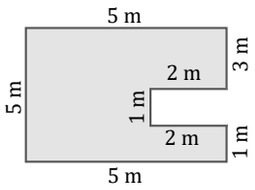
Perimeter = (4 + 4 + 4 + 4) m
= 16 m

d. 

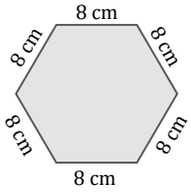
Perimeter = (25 + 20 + 25 + 20) cm
= 90 cm

e. 

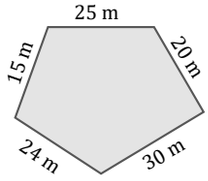
Perimeter = (3 + 6 + 1.5 + 2 + 1.5 + 4) m
= 18 m

f. 

Perimeter = (5 + 1 + 2 + 1 + 2 + 3 + 5 + 5) m
= 24 m

g. 

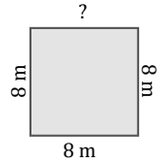
Perimeter = (8 + 8 + 8 + 8 + 8 + 8) cm
= 48 cm

h. 

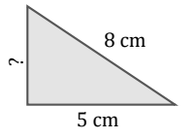
Perimeter = (24 + 30 + 20 + 25 + 15) m
= 114 m

2. Find the missing length in the following figures whose perimeters are given.

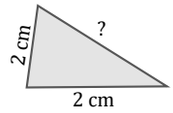
a. Perimeter = 32 m
Missing length
= 32 m – (8 + 8 + 8) m
= 32 m – 24 m
= 8 m



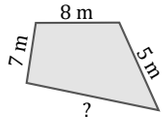
b. Perimeter = 20 cm
Missing length
= 20 cm – (8 + 5) cm
= 20 cm – 13 cm
= 7 cm



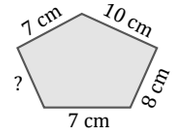
c. Perimeter = 15 cm
Missing length
= 15 cm – (2 + 2) cm
= 15 cm – 4 cm
= 11 cm



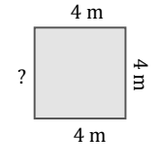
d. Perimeter = 30 m
Missing length
= 30 m – (8 + 7 + 5) m
= 30 m – 20 m
= 10 m



e. Perimeter = 50 cm
Missing length
= 50 cm – (7+8+10+7) cm
= 50 cm – 32 cm
= 18 cm

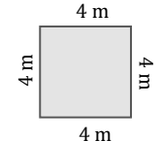


f. Perimeter = 16 m
Missing length
= 16 m – (4 + 4 + 4) m
= 16 m – 12 m
= 4 m

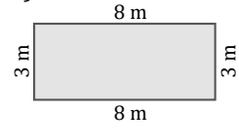


3. Find the perimeter of the following:

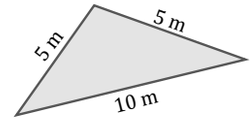
a. Side of the square = 4 m
∴ Perimeter = (4 + 4 + 4 + 4) m
= 16 m



b. Adjacent sides of the rectangle = 8m and 3m
∴ Perimeter = (8 + 3 + 8 + 3)m
= 22 m



c. Sides of the triangle = 3m, 5m, 10m
∴ Perimeter = (3 + 5 + 10)m
= 18 m



4. Find the length of the following squares whose

a. Perimeter = 24 cm
∴ Length of the square = Perimeter ÷ 4
= 24 cm ÷ 4
= 6 cm

b. Perimeter = 36 m
∴ Length of the square = Perimeter ÷ 4
= 36 m ÷ 4
= 9 m

c. Perimeter = 32 m
∴ Length of the square = Perimeter ÷ 4
= 32 m ÷ 4
= 8 m

5. Find the length or breadth of the following rectangles:

   a. Perimeter = 80 m; length = 25 m; breadth = _____ m

   Perimeter = 2 × length + 2 × breadth

   80 m = 2 × 25 m + 2 × breadth

   80 m = 50 m + 2 × breadth

   2 × breadth = (80 m – 50 m = 30 m)

   2 × breadth = 30 m

   $\therefore$ Breadth = $\frac{30}{2}$ m = 15 m

   b. Perimeter = 36 cm; length = _____ cm; breadth = 8 cm

   Perimeter = 2 × length + 2 × breadth

   36 cm = 2 × length + 2 × 8 cm

   36 cm = 2 × length + 16 cm

   2 × length = (36 cm – 16 cm = 20 m)

   2 × length = 20 cm

   $\therefore$ Length = $\frac{20}{2}$ m = 10 cm

   c. Perimeter = 48 m; length = _____ m; breadth = 10 m

   Perimeter = 2 × length + 2 × breadth

   48 m = 2 × length + 2 × 10 m

   48 m = 2 × length + 20 m

   2 × length = (48 m – 20 m = 28 m)

   2 × length = 28 m

   $\therefore$ Length = $\frac{28}{2}$ m = 14 m

   d. Perimeter = 66 cm; length = 20 cm; breadth = _____ cm

   Perimeter = 2 × length + 2 × breadth

   66 cm = 2 × 20 cm + 2 × breadth

   66 cm = 40 cm + 2 × breadth

   2 × breadth = (66 cm – 40 cm = 26 cm)

   2 × breadth = 26 cm

   $\therefore$ Breadth = $\frac{26}{2}$ m = 13 cm

6. The sides of a park are 150 m, 100 m, 80 m and 200 m. If Ravi runs around the park 5 times, what is the distance he covers?

   Perimeter of the park:

   = (150 + 100 + 80 + 200) m
   = 530 m

   Ravi runs 5 times the perimeter of the park.

   = 5 × 530 m

   = 2650 m

   The distance covered once by the brother is 530 m

   To cover the distance of 1590 m = (1590 ÷ 530) m
   = 3

   Answer:

   Ravi runs around the park 5 times and covers a distance of 2650 m.

   So the brother must run 3 times to cover 1590 m.

Page No. 13 to 16

Just for Practice 1.4

1. a) 8, 9, 10

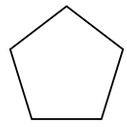
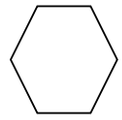
   b) 3, 5, 6, 7

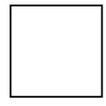
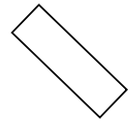
   c) 1, 2, 3, 4, 5, 6, 7

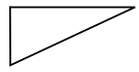
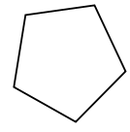
2. Left to students

3. Left to students

4. Left to students

5. a)  b) 

   c)  d) 

   e)  f) 

6. a) 1, 4 - roll linearly; 2 - roll circularly

   b) 3, 5

   c) 3, 5

   d) 1, 2, 4

7. a) radius
   b) it may be same or different

8. Left to students

9. Left to students

10. Left to students

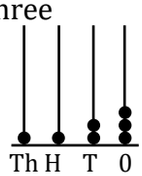
11. a) Rectangle prism
    b) Cylindrical prism
    c) Sphere

Lesson 2: NUMBERS

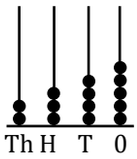
Just for Practice 2.1

Page No. 21 and 22

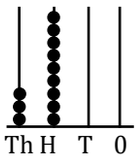
1. a) 1123 - One thousand one hundred and twenty three



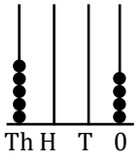
b) 2345 - Two thousand three hundred and forty five



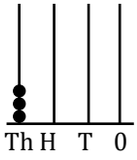
c) 3900 - Three thousand nine hundred



d) 5004 - Five thousand and four



e) 3000 - Three thousand



2. a) 5647 - 5000 + 600 + 40 + 7
   b) 1478 - 1000 + 400 + 70 + 8
   c) 9345 - 9000 + 300 + 40 + 5
   d) 1200 - 1000 + 200
   e) 1305 - 1000 + 300 + 5
   f) 7068 - 7000 + 60 + 8
   g) 8000 - 8000

3. a) ones
   b) hundreds
   c) thousands
   d) hundreds
   e) tens
   f) thousands
   g) hundreds
   h) tens
   i) ones
   j) ones

4. a) 4057 - 4000 + 50 + 7
   b) 3245 - 3000 + 200 + 40 + 5
   c) 3627 - 3000 + 600 + 20 + 7
   d) 3742 - 3000 + 700+ 40 + 2

Page No. 23

Just for Practice 2.2

1. Cross out: 1766, 2220, 1000, 4478, 2022
2. Circle: 1205, 1997, 6655, 2033, 9999, 8989, 7177
3. Odd numbers between 1200 to 1220
   1200, 1202, 1204, 1206, 1208,1210, 1212, 1214, 1216, 1218, 1220.
4. Even numbers between 5011 to 5025
   5011, 5013, 5015, 5017, 5019, 5021, 5023, 5025.
5. a) 9870 – EVEN – Nine thousand eight hundred and seventy.
   b) 1233 – ODD – Thousand two hundred and thirty three.
   c) 6666 – EVEN – Six thousand six hundred and sixty six.
   d) 7171 – ODD – Seven thousand hundred and seventy one.
   e) 8677 – ODD – Eight thousand six hundred and seventy seven.

f 2828 – EVEN – Two thousand eight hundred and twenty eight.

g) 5002 – EVEN – Five thousand and two.

Page No. 29 and 30

Just for Practice 2.3

1. a) Greatest - 8421 Smallest - 1248

   b) Greatest - 9430 Smallest - 3049

   c) Greatest - 2100 Smallest - 1002

   d) Greatest - 8520 Smallest - 2058

   e) Greatest - 7631 Smallest - 1367

   f) Greatest - 9800 Smallest - 8009

   g) Greatest - 4442 Smallest - 2444

2. a) 6421, 6412, 6241, 6214, 6142, 6124, 4621, 4612, 4261, 4216, 4162, 4126, 2641, 2614, 2461, 2416, 2164, 2146, 1642, 1624, 1462, 1426, 1264, 1246

   b) 6410, 6401, 6140, 6104, 6041, 6014, 4610, 4601, 4160, 4106, 4061, 4016, 1640, 1640, 1604, 1460, 1406, 1064, 1046

   c) 8642, 8624, 8462, 8426, 8264, 8246, 6842, 6824, 6482, 6428, 6284, 6248, 4862, 4826, 4682, 4628, 4286, 4268, 2864, 2846, 2684, 2648, 2486, 2468

3. a) Mumbai

   b) Srinagar

   c) 1328, 1678, 1847, 2181, 2527, 3066

   d) Srinagar, Shimla, Delhi, Kanpur, Kolkata, Mumbai

4. a) < b) > c) > d) >
   e) < f) > g) < h) >
   i) > j) >

5. a) 3954, 3543, 3433, 3243, 3220, 3022

   b) 1752, 1739, 1720, 1279, 1270, 1107

   c) 5825, 5800, 3875, 2750, 2708, 2578

   d) 8748, 8744, 8700, 7874, 7433, 7243

   e) 3009, 2988, 2977, 1998, 1800, 1789

Page No. 33 to 35

Just for Practice 2.4

1. a) 6555 b) 6880 c) 9765
   d) 7649 e) 9632 f) 9900
   g) 9848 h) 9984

2. a) 8623 b) 7477 c) 8447 d) 2357
   e) 5493 f) 7059 g) 7572

3. Answer may vary. Left to students.

4. a) 3123 b) 410 c) 1234
   d) 1643 e) 2826 f) 1964
   g) 480 h)583 i) 533
   j) 2900 k) 3994 l) 5074

5. a) 2600 b) 1186 c) 3538
   d) 1041 e) 1418 f) 1420
   g) 4276 h) 4 eggs i) 902
   j) 2925

6. Answer may vary. Left to students.

7. a) True b) False c) False
   d) True e) True

8. a. + b. – c. + d. –
   e. + f. – g. +

9. H.O.T.S

a. Let Say 7 2 5 7

   5 1 3 4

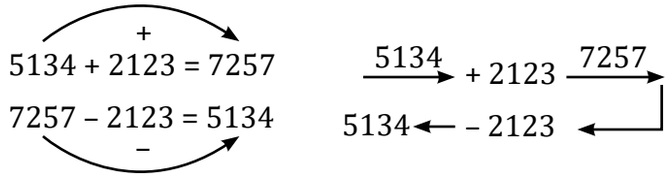
   2 1 2 3

Here 7257 is the minuend

5134 is the subtractional

5134 + 2123 = 7257 which says that 7257 is bigger than 5134 and 2123. That is minuend is the bigger number.

b. Consider the same example:



Lesson 3: PATTERNS

Page No. 39 to 41

Just for Practice 3.1

1. Left to the students

2. a.  b.  c.  d. 

3. a) 12, 10, 8, 6, 4
   b) 42, 49, 56, 63, 70
   c) 18, 21, 24, 27, 30
   d) 13, 11, 9, 7, 5.

4. Left to the students

5. a) 14, 16, 18, 20, 22, 24, 26
   b) 79, 89, 99, 109, 119, 129, 139
   c) 81, 101, 121, 141, 161, 181, 201
   d) 71, 76, 81, 86, 91, 96, 101

6. a) 12, 15.... (predecessor +3 = Number)
   b) 0, 5, 10, 15, 20, 25.... (predecesor +5 = number)
   c) 36, 45.... (predecessor +9 = number)
   d) 28, 35.... (predecessor +7 = number)

7. a) 15, 12 .... (predecessor –3 = number)
   b) 17, 14 .... (predecessor –3 = number)
   c) 14, 12 .... (predecessor –2 = number)
   d) 50, 40 .... (predecessor –10 number)

8. a) 1986m 2404 .... (predecessor + 418 = number)
   b) 1916, 2245 .... (predecessor + 329 = number)
   c) 1838, 2167 .... (predecessor + 329 = number)
   d) 3372, 4065 .... (predecessor + 693 = number)

Page No. 43

Just for Practice 3.2

1. a) 11111 b) 111111 c) 1111111
   d) 11111111

2. d) 8888 e) 888888 f) 8888888
   g) 88888888

3. a) 1280, 5120 .... (predecessor × 4 = number)
   b) 4375, 21875 .... (predecessor × 5 = number)
   c) 128, 256 .... (predecessor × 2 = number)

Page No. 46

Just for Practice 3.3

1. a.
$$\begin{array}{r} 568 \\ \times\ 64 \\ \hline 36352 \end{array} \quad \begin{array}{l} \rightarrow 5+6+8=19 \xrightarrow{9+1} 10 \xrightarrow{1+0} 1 \\ \rightarrow 6+4 \quad =10 \xrightarrow{1+0} 1 \\ \rightarrow 3+6+3+5+2=10 \xrightarrow{1+0} 1 \end{array} \quad \begin{array}{l} \left.\begin{array}{l}\\\\\end{array}\right] 1 \times 1 = 1 \\ \left.\begin{array}{l}\\\\\end{array}\right] 1 \end{array}$$

b.
$$\begin{array}{r} 667 \\ \times\ 26 \\ \hline 17394 \end{array} \quad \begin{array}{l} \rightarrow 6+6+9=12 \xrightarrow{2+1} 3 \\ \rightarrow 2+6 \quad =8 \xrightarrow{1+0} 8 \\ \rightarrow 1+7+3+9+4=15 \rightarrow 6 \end{array} \quad \left.\begin{array}{l}\\\\\end{array}\right] 8 \times 3 = 24 \xrightarrow{2+4} 6$$

c. $8546 \div 12$ quotient, q = 712
divisor, d = 12
remainder, r = 2
Divident = divisor × quotent + remainder
Divident = $\not{8}\ 5\ \not{4}\ 6 = 8 + 6 = 14 \xrightarrow{2+4}$ **5**
Divisor = $12 \rightarrow 7 + 1 + 2 = 10 \rightarrow 1 + 0 = 1$
Quotient = $\frac{7}{2} \rightarrow 7 + 1 + 2 = 10 \rightarrow 1 + 0 = 1$
$d \times q = r = 3 \times 1 + 2 =$ **5**

d. $6753 \div 90$
Remainder, $r = 3$
quotient $q = 75$
remainder, $r = 2$
d x q x r = 0 x 3 + 3 = **3**
Dividend = $6753 \xrightarrow{7+5} 12 \xrightarrow{1+2}$ **3**

Lesson 4: MEASUREMENT

Page No. 49

Just for Practice 4.1

1. a) 4 b) 5 c) 6 d) 7 e) 8
   f) 9 g) 10

Page No. 51 and 52

Just for Practice 4.2

1. Left to the Students.

2. Left to the Students.

3. a) 600cm b) 4m c) 800cm d) 3m

4. a) 5 m - 500 cm
   b) 19 m - 1900 cm
   c) 7500 m - 75 cm
   d) 900 cm - 9 cm

5. a) (i) b) (i) c) (i) d) (i)

6. Left to the students

7. a) 200cm b) 500cm c) 2500cm d) 6200cm

8. a) 5m b) 1m c) 99m d) 11m

Page No. 54

Just for Practice 4.3

1. a) 39 m b) 57 cm c) 9 m 55 cm
   d) 66 m 88 cm e) 34 m 32 cm
   f) 86 m 48 cm

2. a) 22 m b) 25 m c) 13 cm d) 18 cm
   e) 5 m 14 cm f) 12 m 7 cm

3. 12 m

4. 10 cm

5. 5 m

6. 16 m

7. 20 m

8. Length exceeds breadth by 110 cm.
   Sum of length and breadth = 225 + 115 = 340 cm of cloth 340 = 300 + 40 = 3m 40cm.

9. 7m 50cm of cloth in left.

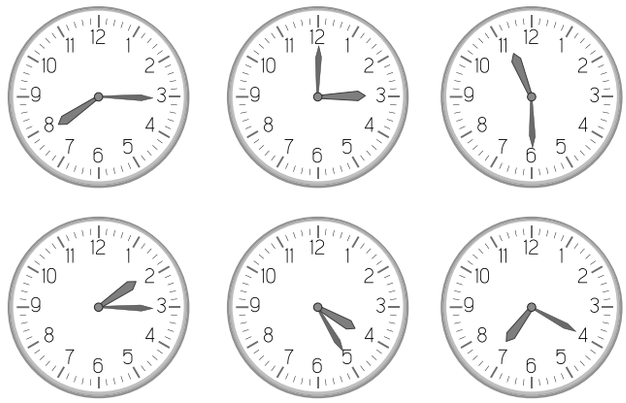
10. 165 cm

Lesson 5: TIME

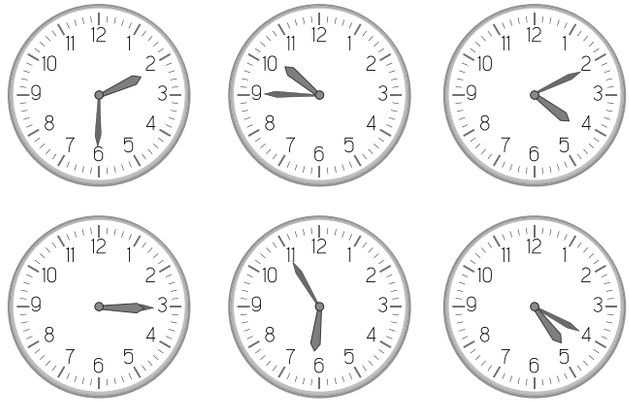
Page No. 63 to 66

Just for Practice 5.1

1. a) 2:30 (half past two)
   b) 7:00 (7 o'clock)
   c) 10:30 (half past 10 o'clock)
   d) 9:20
   e) 6:30 (quarter past six)
   f) 9:45 (quarter to ten)

2. 

3. a) 10:15 b) 1:30 c) 4:45
   d) 7:10 e) 8:50 f) 1:55

4. 

5. a) 7 o'clock b) half past 4 c) quarter to 1

6. a) 16:00 b) 11:30 c) 21:15 d) 23:59

7. a) 6:25 am b) 5:22 pm
   c) 8:23 pm d) 12:00 pm

8. Left to the students

9. a) 12 months
   b) 7 days
   c) 30 days
   d) 30/12/2019 monday
   e) July
   f) February 11th (11/02/2019)
   g) October
   h) 26th September

10. a) 5
    b) 10 days c) 21 days
    d) 10th October e) 23rd October
    f) 5th October

Lesson 6: INFORMATION PROCESSING

Page No. 68

Just for Practice 6.1

1. Possible 3 digits number formed from the number 6504:
   650, 654, 604, 605, 645, 640, 560, 540, 504, 506, 564, 546, 456, 465, 405, 406, 450, 460.

2. Form all possible words from the letters, A, O, R, S, E, N, M, T, I, P without repeating.

a) Rose	j) Roam	s) Tone
b) Rent	k) Nose	t) Raise
c) Tear	l) Tin	u) Rise
d) Ten	m) Rinse	v) Man
e) Pin	n) Earn	w) Men
f) Sent	o) Pen	x) Ran
g) Mint	p) Iron	y) Praise
h) Print	q) Pose	z) Arise
i) More	r) Tip	

Page No. 73 and 74

Just for Practice 6.2

1. a) 3
   b) yes
   c) Butterfly
   d) Ladybug, Grasshopper, Dragon fly, Butterfly

2. a) Hotdog
   b) 20
   c) Sandwich
   d) 25
   e) 100

3. a) Torch
   b) 50%
   c) Bags
   d) yes
   e) 25%

STD : IV KEY ANSWERS TERM : I

Lesson 1 INTERNAL ORGANS OF OUR BODY

Page No. 77

Let us start...

1. Intestines
2. Heart
3. Stomach
4. Kidney
5. Brain
6. Lungs

Page No. 80

Let us think...

Bones of rib gage is important because they protect the internal organs.

Page No. 86

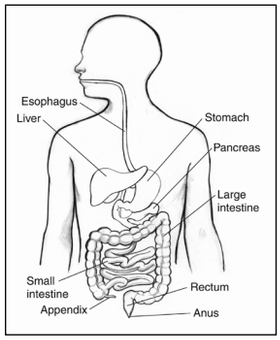
Let us think...

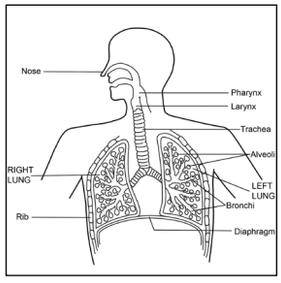
1. Nose
2. Eyes
3. Skin
4. Tongue
5. Ear

Page No. 93 and 94

Let us solve...

A. Label the parts.





B. Find the answers for the riddles.

1. Faster
2. Arteries
3. Food pipe
4. Breathing
5. Skin
6. Ability to run

C. Fill in the blanks.

1. Organ system
2. Lungs
3. Kidney
4. Cardiac
5. Heart and lungs
6. Arteries
7. Brush
8. Bones

D. Answer the following.

1. The mouth, food pipe, stomach, small intestine and large intestine are the parts of the digestive system.

2.
   - If the weather is too hot or if we exercise, we sweat.
   - The brain sends the messages to the body.
   - Then the body starts cooling itself down by producing sweat.

3.
   - The study of internal organs are called anatomy.
   - Heart, Lungs, Kidney and brain are some internal organs

4.
   - Brush twice a day
   - Use dental floss to clean between the teeth
   - Gently clean the tongue with a tongue cleaner

5.
   - Do not blame yourself. You haven't done anything wrong

Lesson 2 PROPERTIES OF MATERIALS AND CLOTHES

Page No. 96

Let us start...

1. Window - wood , glass, iron
2. vessels - steel , copper , alluminium
3. toys- plastic, rubber, steel
4. cycle - steel, rubber
5. cot - wood , foam , metal

Page No. 100

Let us think...

Transparent – pure water
Opaque – wood
Translucent – oil

Page No. 101

Let us discuss...

- To protect from harsh climate
- Tocoverthe body parts
- To be safe from germs and diseases
- To maintain personality and decency

Page No. 105 and 106

Let us solve...

A.

Property of Material	Example	Used for?
Hard	metal	Wires
Flexible	cloth	Dress
Waterproof	plastic	Raincoats
Smooth	rubber	Tyres

B.

1. Soft – wet clay
2. Rigid - glass
3. Rough– sand paper
4. Synthetic fibre - nylon
5. Natural fibre - cotton

C.

1. It cannot be easily compressed or bent
2. It helps to absorb sweat and keep us cool
3. It helps to absorb more heat
4. It keeps us dry during the rains
5. It will not allow the bed to get wet

D. Answer the following.

1. **Transparent materials**: It allows light to pass through it. Eg: Glass

   Opaque Materials: It does not allow light to pass through them. Eg: Metal

   Translucent Materials: It allow some amount of light to pass through. Eg: oil

2.

Natural fibre	Synthetic fibre
It is obtained from plants and animals	It is manmade and not found in nature
It absorb sweat	It does not absorb sweat
Eg: cotton, jute, linen	Eg: Nylon, rayon, polyester

3.
   - Use detergent to wash clothes
   - Dry coloured clothes in shade
   - Iron clothes properly
   - Keep moth balls with woollen clothes

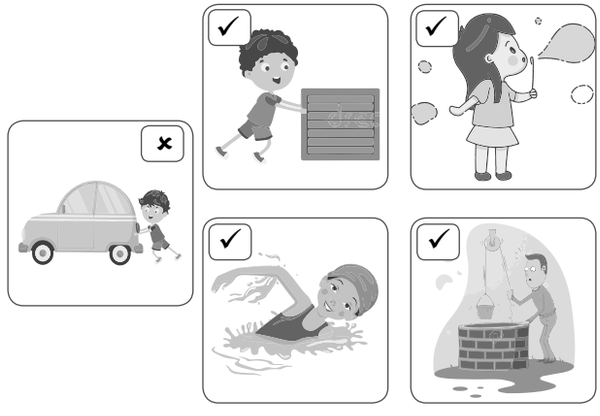
4. Clothes should be absorbant so that they absorb the sweat during summer and do not let us get wet during rainy season.

Lesson 3 FORCE, WORK AND ENERGY

Page No. 111

Event	Types of force	Types of motion
A vendor pushing his vegetable cart	Muscular force	Linear motion
A nail moving towards a magnet	Magnetic force	Random motion
Automatic closing of the knob of a door	Spring force	Circular motion
A windscreen wiper on a car	Mechanical force	Oscillator motion
An apple falling from a tree	Gravitational force	Linear motion

Page No. 112



Page No. 120 and 121

Let us solve...

A. Match the force with the source.

1. Muscular force – force of man and animals
2. Elastic force – sponge regains position after being squeezed
3. Gravitational force – always pull
4. Magnetic force – attracting iron nails and pins
5. Frictional force – that prevents movement of surfaces in contact

B. Answer in one word.

1. Force
2. Work
3. Energy
4. Biogas
5. Chemical

C. Think and answer.

1. we can't draw electricity from thunder because high current is produced within a fraction of second
2. nuclear energy is not safe because it gives out harmful radiations so much care has to be taken in using it safely
3. Switch off devices when not in use. Use public transport rather than private transport used natural cooling system rather than AC or refrigerator
4. Biogas is eco friendly and does not pollute air

D. Answer the following.

1. • Force is a push or pull which makes an object move, change its shape and stop its motion
   • The conditions for work to be done are:
   i) Force should act on an object
   ii) The object should move in the direction of force.
2. The two uses of frictions are
   • The soles of shoes, slippers and tyres of vehicles have rough surface to increase friction so that they do not skid or fall
   • The place where children play is generally filled with sand to prevent them from getting hurt
3. Fossil fuels are sources of energy is formed from the accumulated remains of living organisms that were buried billions of years ago.
4. The energy obtained from the sun is called solar energy.
5. We should conserve energy,
   • to save resources for longer use
   • to avoid pollution

Lesson 4 SIMPLE MACHINES

Page No. 124

Let us start...

1. Ladder
2. Axe
3. Nail
4. Bottle opener
5. Scissors
6. Pulley

Page No. 126

Let us find out...

Home – knife, scissors
School – sharpener, see saw

Page No. 129

Let us think...

1. sharpener
2. pulley in the well

Page: 132 and 133

Let us solve...

A. Choose the correct answer.

1. c. wheel and axle
2. b. second-order lever
3. c. it changes the direction of force
4. d. a mop stick
5. c. effort
6. b. lever

B. Who am I?

1. Simple machines
2. Wheel and axle
3. Inclined plane
4. Pulley
5. Lever
6. Wedge

C. Answer the following.

1. • The tools or devices which makes our work easy are called simple machines.
   • Simple machines are four main types. They are
      • Lever
      • Wheel and axle
      • Pulley
      • Inclined plane
2. • First order lever – Eg: scissor, crowbar
   • Second order lever – Eg: nut cracker, bottle opener
   • Third order lever – Eg: tongs, forceps
3. • It is a type of inclined plane
   • It has inclined planes on two sides, to look like the letter 'V'
   • Effort is applied at the flat end and the load is kept a he pointed end.
4. • A pulley is a grooved wheel
   • It makes our work easy by changing the direction of force

Lesson 5 SCIENCE IN EVERYDAY LIFE

Page No. 135

Let us start...

1. Mode of transport
2. Medical facilities
3. communication
4. Technology
5. industrialization

Page No. 142 and 143

Let us solve...

A.

1. Clinical thermometer
2. Stethoscope
3. Microscope
4. CT scan
5. X ray

B. Differentiate the following.

1.

Microscope	Telescope
It is used to examine the blood or urine sample of the patient	It is used to observe heavenly bodies.
It magnifies tiny objects like bacteria and virus	Huge Mirrors and lens are used to capture light

2.

X-Ray imaging	Ultra scan
It is used to take pictures of fractured bones	It provides information on function of body parts
It is used to locate foreign object in our body	It helps doctors find out the disease and defects of body parts

D. Answer the following.

1. • The thermometer has a bulb which contains mercury.
   • The bulb when contact with an object transfers the heat to mercury
   • There is a scale by the side of the tube which indicates the temperature of he body
2. • Scientists were able to see the germs that caused diseases and thus identify and name them.
   • Later appropriate medicines were developed and the effect of such medicines were also studied under the microscope.
3. • A telescope is an optical instrument that makes distant objects appear magnified
   • it is used in study of heavenly bodies like the stars, planets and satellites.
4. Milk is a complete food as it contains all the required nutrients to grow stronger and healthier.

STD : IV KEY ANSWERS TERM : I

Lesson 1 KINGDOMS OF RIVERS

Page No. 147

Let us start...

1. b, c, e
2. a, c, d
3. a. Madurai
   b. Kannagi
   c. Mahaballipuram
   d. Thanjavur

Page No. 152

Let us find out...

1. Rajarajeswaram
2. Peruvudaiyar
3. Dhakshina Meru

Page No. 156 and 157

A. Tick the correct answers.

1. Agriculture
2. Chera, Chola, Pandya
3. Neduncheralathan
4. Rajendra
5. Pallava

B. Match the kingdoms.

1. Chera - 4 - 3
2. Chola - 3 - 4
3. Pandya - 1 - 1
4. Pallava - 2 - 2

C. Answer the following.

1. Thondi and Musiri were the two important ports which were used by the Cheras for trade.
2. Karikala is remembered even today because of the architectural marvel of Kallanai dam built across the river Cauvery, which is functional even today.
3. Silappathikaram was written by Ilango adigal. Senguttuvan was ruling the country at the time.
4. • The kings were great warriors, scholars and lovers of fine art.
   • They took care of the people and were respected by people.
5. The seven prominent rulers were called as Kadai Yezhu Vallalgal for their compassion and generosity.

Page No. 157

A. Let us find out.

2. Malaysia, Indonesia, Srilanka, Maldives etc.
3. To celebrate his victory over the pala dynasty in gangetic plain.

Page No. 158

B. Let us think.

Cheras: This indicates Clan Villavar, who found the ancient Chera kingdom. (Villavar - archer)

Cholas: The tiger is considered a symbol of honour and righteousness and also mentioned in periyapuranam.

Pandyas: The Pandya king's daughter Meenakshi had the eyes in shape of fish, so they had this insignia. It is a symbol of beauty.

Pallavas: Nandi is preferred by Nandivarman.

C.

1. **Brihadeshwara temple** - Thanjavur - cholas.
2. **Gangaikondacholapuram temple** - Ariyalur - cholas.
3. **Kailasanathan temple** - kanchipuram - pallavas.
4. **Shore temple** - Mahabalipuram - pallavas.
5. **Meenakshi amman temple** - Madurai - pandyas.
6. **Kapaleeswarar temple** - Mylapore - cheras.

Lesson 2 LANDFORMS

Page No. 159

Let us start…

1. Plateau
2. Forest
3. Plain
4. Beach
5. Desert

Page No. 163

Let us solve...

A. Write True or False.

1. False
2. True
3. False
4. False
5. False

B. Fill in the following sentences.

1. Energy and Enthusiasm
2. Jasmine
3. Neidhal
4. Paalai
5. Marudham

C. Answer the following.

1. The main occupations of the people of kurinji were hunting, honey harvesting and millets cultivation.
2. Mullai was called the land of joy and cheer because there were seasonal rains and the land flourished.
3. a. Vedars
   b. Parathavar
   c. Aayars
   d. Kalvar
   e. Uzhavar

PageNo. 164

A. Find out the following.

Regions	Animals	Birds
Kurinji	Snow leopard, giant panda, wild yak, himalayan tahr	Balck bulbul, ward's trogon, Himalayan quail, golden eagle, monal.
Mullai	Bengal tiger, Asiatic lion, sloth bear, Gaur	Paradise fly catcher, Indian pitta, Red headed trogan.
Neidhal	Blue Whale, Green sea turtle, sea horse, dolphin	Purple heron, common sand piper, painted stork.
Marutham	Indian rhinoceros, wild water buffalo, leopard	Swan, Gulls, Herons , Hawks, Pheasants.
Paalai	Black buck, fennec fox, wild cats, chinkara (deer), Indian desert jird (rat)	Indian bustard, Red headed vulture, forest owlet, white bellied heron.

Lesson 3 MUNICIPALITIES AND CORPORATION

Page No. 165

Let us start…

a. Municipality

b. Municipal Corporation

c. Municipality

d. Municipal Corporation

Page No. 168

Let us find out...

Chennai, coimbatore, Madurai, Trichy, Salem, Tirunelveni, Tiruppur, Erode, Vellore, Toothukudi, Thanjavur, Dindugal, Nagercoil, Hosur, recent Avadi.

Page No. 170

Let us solve...

A. Complete the following sentences.

1. People
2. Gram Panchayat
3. Municipal committee or Municipal council
4. Size of the population of the city
5. State government and Municipal corporation

B. Answer the following.

1. 18 years or above is the age for citizens to vote in the Municipal Corporation election.
2. The elected members of the Municipalities are called as Municipal Councillors.
3. • The Mayor who is elected by the member of the Municipal Corporation.
   • Deputy Mayor - heads in the absence of the Mayor.
   • Elected Councillors.
   • Members of Loksabha and Rajya Sabha.
   • People with experience and special knowledge about Municipal administration within the area.
4. The functions of a Municipal corporation are
   • Collection and disposal of garbage.
   • Building hospitals.
   • Provide public convenience.
   • Registering birth and death.
   • Maintaining roads and bridges.
   • Building and maintaining schools, libraries, museums and zoos.
5. A Municipal corporation gets its fund to perform its duties through various taxes like
   • Water tax
   • House tax
   • Professional tax
   • toll tax
   • Goods and Service tax (GST)
   • Vehicle Tax
   • Fees on issuing Birth and death certificates etc.