Items for Assessment of Learning Outcomes







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CHAPTER I

Building with bricks

LEARNING OBJECTIVES

- Observes and identifies various brick patterns in walls, floors and name them.
- Examines properties of a brick for a cuboid (edges, faces etc.).
- Observes specific types of brick patterns in the surroundings and names them.
- Solves problems based on daily life instances.

LEARNING OUTCOMES

- Observes, identifies and extends geometrical patterns based on symmetry
- Acquires understanding about shapes around her /him
 - a) Identifies the center, radius and diameter of the circle
 - b) Finds out shapes that can be used for Tiling
 - c) Makes cube / cuboids using the given nets
 - d) Shows through paper folding / paper cutting, ink blots, etc.
- The concept of symmetry by reflection
- Draws top view, front view and side view of simple objects
- Observes, identifies and extends geometrical patterns based on symmetry
- Applies operations of numbers in daily life
 - a) Multiplies 2- and 3-digit numbers
 - b) Divides a number by another number using different methods like pictorially (by drawing dots), equal grouping or repeated subtraction and by using inter-relationship between division and multiplication
- Creates and solves simple real-life situations / problems including money, length, mass and capacity by using the four operations

Q 1. Determine the faces and edges of the following shape.



- (a) 6 faces and 12 edges
- (b) 6 faces and 14 edges
- (c) 8 faces and 12 edges
- (d) 6 faces and 10 edges

Q 2. Identify the shape of the picture?



(a) rectangle(b) cube(c) cuboid(d) none of the above

Q 3. Which pattern is made in a circle?



Q 4. Muniya wants to make a wall 1m long. Length of each brick is 10cm. How many bricks will she need to put in a line?

(a) 10 bricks	(b) 15 bricks
(c) 20 bricks	(d) 12 bricks

Answers 1- (a) 2- (c) 3- (d) 4- (a)

CHAPTER II Long and short

LEARNING OBJECTIVES

- Estimates and measures the distance (in cm) between the given objects
- Measures the heights of different objects using a scale
- Measures distance between objects (in meters and kilometers)
- Converts units of length (cm, m, and km).
- Measures the distance and determines the nearest and farthest points
- Solves simple real-life problems related to length and height of objects (including conversion)
- Solves simple real-life problems related to distance between objects/places (including conversion)

LEARNING OUTCOMES

- Estimates the length of an object /distance between two locations, weight of various objects, volume of liquid, etc., and verifies them by actual measurement.
- Converts meter into centimetres and vice versa.
- Solves problem involving daily life situations related to length, distance, weight, volume and time involving four basic arithmetic operations.

Q 1. Tania wants to choose the metric unit for the items given in list I. Match the objects in List I with units in List II to help find the metric units for the objects given below:



(a) A-4, B-1, C-3, D-2
(b) A-1, B-4, C-3, D-2
(c) A-3, B-2, C-4, D-1
(d) A-2, B-1, C-3, D-4

Q 2. Distance from Delhi to Mumbai is measured in

- (a) Foot (c) Kilometre
- (b) Metre (d) None of the above

Q 3. Look at the pictures given below and find the weight of the objects using numbers (0 - 9) only.



(a) 6 Kg	(c) 7 Kg
(b) 8 Kg	(d) 9 Kg

Q 4. If 1 metre: 100 centimetre then 1 kilometre: ?

(a) 100 metre(b) 1000 metre(c) 100 centimetre(d) 1000 centimetre

Q 5. Peenu has written following statements about the metric unit she would use to measure some objects. Find the incorrect sentence among the following sentences:

(A) Centimetre is used to measure the length of a pencil.

(B) Kilometre is used to measure distance from one city to another.

(C) Metre is used to measure depth of a bucket.

(D) Metre is used to measure height of a tree.

(a) A (c) C (b) B (d) D

Q 6. Distance between your house and your school is measured in kilometre, Then Distance between your house and your neighbour's house is measured in

- (a) kilometre (c) centimetre
- (b) millimetre (d) metre

Answers

1- (c) 2- (c) 3- (d) 4- (b) 5- (c) 6-(d)

CHAPTER III

A TRIP TO BHOPAL

LEARNING OBJECTIVES

- Solves small number mathematical problems by estimation and verification
- Solves real life problems based on time and distance.
- Solves time and measurement related real life problems (including conversion)
- Solves contextual problems involving money
- Performs division by equal distribution method and alternative methods.

LEARNING OUTCOMES

- Applies operations of numbers in daily life
- a) Multiplies 2- and 3-digit numbers
- b) Divides a number by another number using different methods like pictorially (by drawing dots), equal grouping or repeated subtraction and by using interrelationship between division and multiplication
- Creates and solves simple real-life situations / problems including money, length, mass and capacity by using the four operations
- Solves problem involving daily life situations related to length, distance, weight, volume and time involving four basic arithmetic operations

Q 1. A group of 1500 students wants to ride a roller coaster. If the cars on the roller coaster can each hold 5 people, how many cars will the students need?

(a) 200	(c) 300
(b)300	(d) 400

Q 2. Kiran bought 5 cookies all of which were having equal price. If the total amount paid by her was ₹33, what was the price of 1 cookie?

(a) ₹5	(c)₹5.50
(b) ₹6	(d)₹6.60

Q 3. Look at the board and tell how far PGI from Manimajra is.



(a) 9 Km	(C) 12 Kn
(b) 11 Km	(d) 5 Km

Q 4. Janaki went to attend her mathematics class at 9:45 a.m. and came out at 11:40 a.m. What was the duration of her mathematics class?

- (a) 1 hour 55 minutes (c) 1 hour 45 minutes
- (b) 1 hour 30 minutes (d) 1 hour 50 minutes

Q 5. Distance from Delhi to Agra is measured in:

- (a) Foot (c) Kilometre
- (b)centimetre (d) Millimetre

Answers:

1- (b) 2- (d) 3- (b) 4- (a) 5- (c)

CHAPTER IV Tick Tick Tick

LEARNING OBJECTIVES

- Reads time from a 12-hour clock.
- Tells the duration (in minutes/hours/seconds) between the given time stamps and vice versa
- Writes time in am-pm format and relate it with daily life activities
- Writes time in 12-hour format and 24-hour format

LEARNING OUTCOMES

- Reads clock time in hour and minutes and expresses the time in a.m. And p.m.
- Calculate time intervals / duration of familiar daily life events by using forward or backward counting / addition and subtraction.
- Relates to 24-hour clock with respect to 12-hour clock.

Q 1. The figure shows a time line.



Find the duration between the two given times.

(a) 16 hours	(c) 7 hours
(b) 10 hours	(d) 5 hours

Q 2. How is half past 9 in the morning written?

(a)9:15 a.m.	(c) 9:30 a.m.
(b)9:30 p.m.	(d) 9:45 a.m.

Q 3. What time is it?



(a) 8:05 o clock (b) 8:00 o clock (c) 9:00 o clock (d) 8:10 o clock

Q 4. How many minutes make a hour?

(a) 30 minutes	(c) 60 minutes
(d) 50 minutes	(d) 45 minutes

Q 5. The cricket match started at 8:00pm. Each half was 45 minutes. What time did the first half end?

(a) 8:45pm	(c) 8:35 pm
(b) 9:30pm	(d) 9:05 pm

Q 6. Tina and Carl are traveling to New York City. Tina's plane arrives at 8:00 a.m. Carl's plane arrives 2 hours and 30 minutes later. What time does Carl's plane arrive?

(a) 8:30 a.m.	(c)10:30 a.m.
(b) 9:30 a.m.	(d)11:30 a.m.

Answers

1- (d) 2- (c) 3- (a) 4- (c) 5- (a) 6- (c)

CHAPTER V

The way the world looks

LEARNING OBJECTIVES

- Observes and draws objects from different heights.
- Observes and draws objects from different sides.
- Draws objects from different angles

LEARNING OUTCOMES

- Acquires understanding about shapes around her /him
 - a) Identifies the center, radius and diameter of the circle
 - b) Finds out shapes that can be used for Tiling
 - c) Makes cube / cuboids using the given nets
 - d) Shows through paper folding / paper cutting, ink blots, etc.
- The concept of symmetry by reflection.
- Draws top view, front view and side view of simple objects

Q 1. Tessellation are tiling pattern with no gaps in between the tiles. Which of the following can tessellate?



Q 2. Which of the following is a drawing of the cylinder?



The following is the map of a town. Observe the map and answer the ques (3-4)



Q3. The number of hospitals in the town is

(a) 1	(b) 2
(c) 3	(d) 4

Q4. What is the difference between number of general stores and schools

	(a) 5 (c) 1	(b) 6 (d) 2
Q5.		(0) -
	is the	view of



Answers

1 (c) 2 (a) 3 (b) 4 (c) 5 (a)

CHAPTER VI

The junk seller

LEARNING OBJECTIVES

- Compares the cost and calculates the total amount paid in real life situations
- Solves arithmetic sums mentally.
- Devises alternative methods to do multiplication
- Estimate and verifies the answer for various sums involving arithmetic operations.
- Solves real life problems related to currency (coins and notes).

LEARNING OUTCOMES

- Applies operations of numbers in daily life.
 - a) Multiplies 2- and 3-digit numbers
 - b) Divides a number by another number using different methods like- pictorially (by drawing dots), equal grouping or repeated subtraction and by using inter-relationship between division and multiplication.
- Creates and solve simple real-life situations / problems including money, length, mass and capacity by using the four operations.

Q 1. A school club has 525 members. If each member pays ₹11 as the membership fee, how much money is collected?

(a)₹5725	(c) ₹52511
(b)₹5775	(d) ₹6775

Q 2. Which digit should be placed in [], so that the following multiplication is correct?

	5 2 🗆	
	$\frac{7}{3661}$	
(a) 1	(c) 4	
(b)3	(d) 7	

Q 3. Identify the product 15×31×78 estimated by rounding each number to the

nearest ten.

(a)24000	(c) 42000	
(b) 48000	(d) 21000	

Q 4. (726-242) estimated to the nearest hundred is

(a)480	(c) 484

(b)490 (d) 500

Q 5. Hari bought 3 kg Orange for ₹ 150, but he sold 1 kg Orange for ₹ 60. How much money does he earn on selling 1 kg Orange?

- (a) 10 rupees (c) 30 rupees
- (b) 20 rupees (d) none of the above

Q 6. If 23 x 3 = 69, then 23 x 30 is _____

- (a) 69 (c) 6900
- (b) 690 (d) none of the above

Q 7. Arun has three 10 rupee coins, five 5 rupee coins and six 2 rupee coins. Find the total amount?

- (a) 63 (c) 67
- (b) 65 (d) none of the above

Q 8. For 6 pens Raju paid 54 rupees. Find the cost of one pen?

- (a) 7 rupees (c) 9 rupees
- (b) 8 rupees (d) none of the above

Answers 1 (b) 2 (b) 3 (c) 4 (d) 5 (c) 6 (b) 7 (c) 8 (c)

CHAPTER VII Jugs and mugs

LEARNING OBJECTIVES

- Estimates and measures the volume of liquids in liters and milliliters
- Estimates, measures and compares volume of different liquids.
- Solves real life problems based on volume of liquids

LEARNING OUTCOMES

- Estimates the length of an object /distance between two locations, weight of various objects, volume of liquid, etc., and verifies them by actual measurement
- Solves problem involving daily life situations related to length, distance, weight, volume and time involving four basic arithmetic operations

Q 1. Which of the following is equal to 1 kilolitre?

- (a) 1000 dm³
- (b) 100 dm^3
- (c) 1 dm^3
- (d) 10 dm^3

Q 2. Small amounts of liquid are measured in:

- (a) Kilolitre
- (b) Millilitre
- (c) Kilogram
- (d) Gram

Q 3. How many millilitres are in a litre?

- (a) 1
- (b)10
- (c)100
- (d)1000

Q 4. A jar can hold 41 250 ml honey. How much honey will be needed to fill 4 jars?

- (a) 16 litres
- (b) 15 litres
- (c) 17 litres
- (d) 171250 ml

Q 5. Which vessel holds the least water and how much?



(d) thermos, 1000ml

Answers 1 (a) 2 (b) 3 (d) 4 (c) 5 (b)

CHAPTER VIII Carts and wheels

LEARNING OBJECTIVES

- Constructs circles of varied sizes with different radii.
- Measures radii of circles with the help of a ruler/measuring tape/thread.
- Identifies the centre of the circle.

LEARNING OUTCOMES

- Acquires understanding about shapes around her /him
- a) Identifies the center, radius and diameter of the circle
- b) Finds out shapes that can be used for Tiling
- c) Makes cube / cuboids using the given nets
- d) Shows through paper folding / paper cutting, ink blots, etc.
- The concept of symmetry by reflection
- Draws top view, front view and side view of simple objects

Q 1. Find the radius and diameter of the following circle.



- (a) Radius 72 in, Diameter 36 in
- (b) Radius 36 in, Diameter 18 in
- (c) Radius 36 in, Diameter 75 in
- (d) Radius 36 in, Diameter 72 in

Q 2. How many lines of symmetry does the shape shown have?



(a) 0	(b) 1
(c) 2	(d) 4

Q 3. Which figure has more radius?



Answers

1- (d)	2- (b)	3-(b)	4- (c)
5- (d)	6- (c)	7- (a)	8- (d)

CHAPTER IX Halves and quarters

LEARNING OBJECTIVES

- Divides objects (or shapes) into two and four equal parts (concretely, pictorially and symbolically)
- Writes 3/4 symbolically and relate its meaning with the part and whole.
- Finds fractional part of a given natural number

LEARNING OUTCOMES

(a) 7/5

(b) 7/12

- Works with fractions
 - a) Identifies half, one-fourth, three-fourths of a whole in a given picture by paper folding and also in a collection of objects.
 - b) Represents the fractions as half, one- fourth and three- fourths by using numbers / numerals
- Shows the equivalence of a fraction with other fractions.

Q 1. Write down the fraction of the coloured portion.



Q 2. If the shaded area has a value of 1/3, what is the value of the whole shape?



(a) 12/5	(c) 13/3
(b)13/4	(d) 13/5

Q 3. What fraction is the shaded part?



(a) 1	(c) 11/12
(b) 23/14	(d) 13/14

Q 4. Pick the odd one out.

(a) 2/5	(c) 3/5
(b) 8/20	(d) 6/15

Q 5. There are 60 students in a class. 1/6 of them are absent. How many students are absent?

(a)11	(c)9
(a) 1 1	(C)

(b)10 (d)12

Answers

1- (b) 2- (c) 3- (c) 4- (c) 5- (b)

CHAPTER X

Play with patterns

LEARNING OBJECTIVES

- Identifies and extends the patterns using blocks and geometrical shapes.
- Identifies and extends the patterns using numbers and letters.
- Solves magic squares and magic triangles.
- Identifies and extends various number patterns
- Completes the given tiling patterns observes

LEARNING OUTCOMES

- Observes, identifies and extends geometrical patterns based on symmetry
- Identifies the pattern in multiplication and division (up to multiple of 9)

Q 1. Find the missing numbers

8	1	6
3	?.	7
4	9	2

(a) 5	(c) 6
(b) 8	(d) 7

Q 2. Find the missing number in the given pattern? (4), (8), (12), (16), _2, (24), _2, (32)

- (a) 20, 28 (c) 28, 30
- (b) 26, 30 (d) 25, 30
- Q 3. Find the missing letter in the given series. B E H K N ?
 - (a) O (c) Q
 - (b) P (d) R

Q 4. If 🙂 🙂 Stands for 30, for which number will 😢 🙂 🙂 🕲 stand?

(c) 60	(c) 70
(d) 80	(d) 75

Q 5. What is the number in [] if $8 \times 6 = 2 \times [] \times 8$?

(a) 32	(c) 4

(b) 3 (d) 2

Q 6. What is the value of $13+6-2+5\times4?$

(a) 37	(c) 45
(b)28	(d) 25

Q 7. How many squares are there in the following picture?

	-	
-	-	

(a) 13	(c) 14
(b) 15	(d) 16

Answers

1- (a) 2- (a) 3- (c) 4- (d) 5- (b) 6- (a) 7- (d)

CHAPTER XI Tables and shares

LEARNING OBJECTIVES

- Relates the concept of multiplication to the arrangement of things in an array.
- Solves a variety of daily life problems using multiplication.
- Solves problems based on division with large numbers using repeated subtraction.
- Devises alternative method of division apart from standard algorithm.
- Solves daily life problems based on division.
- Multiplies or divide the given numbers.
- Extends the number pattern for a given situation to find the unknown value.
- Identifies the pattern in multiplication and division (up to multiple of 9).

LEARNING OUTCOMES

- Applies operations of numbers in daily life
 - a) Multiplies 2- and 3-digit numbers
 - b) Divides a number by another number using different methods like pictorially (by drawing dots), equal grouping or repeated subtraction and by using inter-relationship between division and multiplication
- Creates and solves simple real-life situations / problems including money, length, mass and capacity by using the four operations
- Identifies the pattern in multiplication and division (up to multiple of 9

Q 1. If the cost of 1 litre of a cough syrup is ₹480.40, find the cost of 500 ml.

(a)₹200.40	(c) ₹220.40
(b) ₹260.40	(d) ₹240.20

Q 2. Find the missing value: 120, 60, __, 15, __.

(a) 25, 8	(c) 30, 7.5
(b) 30, 8.5	(d) 25, 10

Q 3. Johnny used the rule ''double the number''. Which pair of numbers will be the next two numbers using the rule?

3, 6, 12, 24,,	
(a) 36, 72	(c) 96, 144
(b) 48, 72	(d) None of the above

Q 4. There are 61 boxes of pencils in a store. There are 14 pencils in each box. How many pencils are in the store?

(a)854	(c) 754
(b)975	(d) 847

Q 5. Solve the problem.



Q 6. If 2 glasses of water is required to cook 1 glass of rice. Then how many glasses of water are required to cook 15 glasses of rice.

(a) 15	(c) 2
(b) 30	(d) 17

Answers

1(d) 2(c) 3(d) 4(a) 5(a) 6(b)

CHAPTER XII How heavy? How light?

LEARNING OBJECTIVES

- Adds smaller values to get a sum of 1kg
- Estimates, measures and compares the weight of objects in grams and kilograms.
- Devises alternative methods to measure heavy objects.
- Uses a variety of weights to weigh using a weighing balance.
- Solves real life problems involving weights
- Draws comparison of different objects basis on their weights

LEARNING OUTCOMES

- Estimates the length of an object/distance between two locations, weight of various objects, volume of liquid, etc., and verifies them by actual measurement
- Solve problems involving daily life situations related to length, distance, weight, volume and time involving four basic arithmetic operations

Q 1. Which one is heavier? One-kilogram cotton or one kg iron?

(a) cotton	(c) iron
(b)both are equal	(d) none of the above

Q 2. 125g is equal to _____ kg.

(c) 125000	(c) 0.125
(d)12.50	(d) 1250

Q 3. Which of the following statements is not correct?

(a) Weight of vegetables is 5 kg.
(b) Time duration for the exam is 40 cm.
(c) Height of a student is 153 cm.
(d) Capacity of the drum is 100L.

Q 4. The process of finding out the size or quantity of something is:

(a) Measurement	(c) Unit
(b)Mass	(d) Length

Q 5. Hariya Wants to weigh some fruits in his weighing balance. He has put a 1kg weight on left side of the balance. What weight of fruits should be added to balance the scale?



(a) 400g	(c) 600g
(b) 500g	(d) 300g

Q 6. Look at the pictures given below and find the weight to balance it. A



(a) 1 kg	(c) 2kg
(b) 3kg	(d) 4kg

Q 7. Chedilal is weighing some bricks. Match the following lists to help Chedilal in weighing bricks.

	List I		List II
A.		1.	10 kg
В.	S	2.	1 kg
c.		з.	100g
D.		4.	10 g

(a) A-2, B-4, C-1, D-3
(b) A-4, B-2, C-3, D-1
(c) A-2, B-4, C-3, D-1
(d) A-4, B-2, C-1, D-3

Q 8. A pineapple weighs 1 kg 200g. How many pineapples would weigh 3 kg 600lg?

(b) 3 (d) 4

Answers

1- (b) 2- (c) 3- (b) 4- (a) 5- (d) 6- (b) 7- (a) 8- (b)

CHAPTER XIII

Fields and fences

LEARNING OBJECTIVES

- Recognizes the total length of boundary as the perimeter of a plane figure and calculates perimeter of simple shapes.
- Estimates and compares the perimeter of various figures
- Solves real life problems involving perimeter of simple shapes
- Determines the size of a shape by using a smaller shape as a unit
- Determines the size (or area) of simple geometrical shapes and irregular figures given on a square grid.
- Solves real life problems based on the area of plane figures

LEARNING OUTCOMES

• Explores the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit.

Q 1. If perimeter of 1 small square is 4m then what is the area of the whole figure?



(a) 4 square metre

(b) 8 square metre

(c) 16 square meter

(d) 6 square metre

Q 2. Find the perimeter in units of the figure given whose each edge of length 1 unit.



(a) 7	(b) 8
(c) 9	(d) 10

Q 3. What is the perimeter of square of side 9 cm?

(a) 35 cm	(b) 36 cm
(c) 37 cm	(d) 38 cm

Q 4. If Jhilmil aunty gave her left over 2.5m lace to Milly aunty who wants to stitch it to the border of a pillow as given below. Then how much lace would be left after completing her pillow?



Q 5. Find the area of the figure given below:





Answers

1- (b) 2- (c) 3- (b) 4- (d) 5- (b) 6- (b)

CHAPTER XIV Smart charts

LEARNING OBJECTIVES

- Collects and records data in a tabular form.
- Reads and interprets the data recorded in a tabular form
- Draws a strip chart to represent a given information
- Reads and interprets a strip chart.
- Draws a chapatti chart to represent the information given in a tabular form

LEARNING OUTCOMES

• Represents the collected information in tables and bar graphs and draws inferences from these.

$Q\ 1.$ Read the circle graph on class 4 students hobbies given below and answer the questions that follow



(i) Which was the most preferred hobby among students?

- (a) Painting (b) Reading
- (c) Dancing (d) Stamps collection

(ii) Which was the least preferred hobby among students?

(a) Painting	(b) Listening to music
(c) Dancing	(d) Stamps collection

(iii) Which was the next preferred hobby after reading among students?

- (a) Painting (b) Listening to music
- (c) Dancing (d) Stamps collection

Q 2. Read the bar graph given below which shows a family's monthly expenditure on various items.



(i) On which item did the family's expenses was the highest?

(a) Cloth	(b) Education
(c) Food	(d) Health

(ii) On which item did the family's expenses was the minimum?

(a) Cloth	(b) Education
(c) Food	(d) Health

Q 3. Circle graph drawn below shows the area used to grow different vegetables in a kitchen garden.



(i) Which vegetable has been growning in the the maximum area?

(a) Potato	(b) Brinjal
(c) Tomato	(d) Cauliflower

(ii) Which vegetable has been growning the least area?

(a) Potato	(b) Brinjal
(c) Tomato	(d) Cauliflower

Answers

1(i)- (b)	1(ii)- (d)	1(iii)- (a)
2(i)- (c)	2(ii)- (a)	
3(i)- (a)	3(ii)- (b)	

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"Live as if you were to die tomorrow. Learn as if you were to live forever"

- Mahatma Gandhi

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