

Items for Assessment of Learning Outcomes

Mathematics Class 1



राज्य शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
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CHAPTER I

Shapes and space

LEARNING OBJECTIVE

- Describes spatial relationships using “top – bottom, on-under/above-below”
- Matches and sorts common 2D shapes by features and size
- Matches common 3D objects to corresponding shapes and classifies them based on observable features
- Recognizes ‘circle’ and ‘square’ and establishes correspondence with everyday objects
- Recognizes ‘rectangle’ and ‘triangle’ and establishes correspondence with everyday objects
- Matches and sorts concrete objects and pictures based on visual attributes like shapes, size and colour.
- Applies own rule(s) to sort group of objects.

LEARNING OUTCOMES

- Describes the physical features of various solids /shapes in her own language.
- Classifies objects into groups based on a few physical attributes such as shape, size and other observable properties including rolling and sliding recites number names and counts objects up to 20, concretely, pictorially and symbolically

Q 1. What comes before 15.

- (a) 12 (b) 14 (c) 13 (d) 16

Q 2. What comes after 9.

- (a) 5 (b) 10 (c) 7 (d) 11

Q 3. What comes between 13-----15

- (a) 14 (b) 9 (c) 11 (d) 14

Q 4. Circle the largest number (1-20).

- (a) 12 (b) 6 (c) 9 (d) 10

Q 5. Circle the smallest number (1-20).





- (a) 14 (b) 16 (c) 20 (d) 9

Q 6. Complete the Pattern. 7, 6, 5, _____, _____, _____, _____

- (a) 3,4,5,6 (b) 4,3,2,1 (c) 1,2,3,4 (d) 8,9,10,11

Q 7. Complete the Pattern.



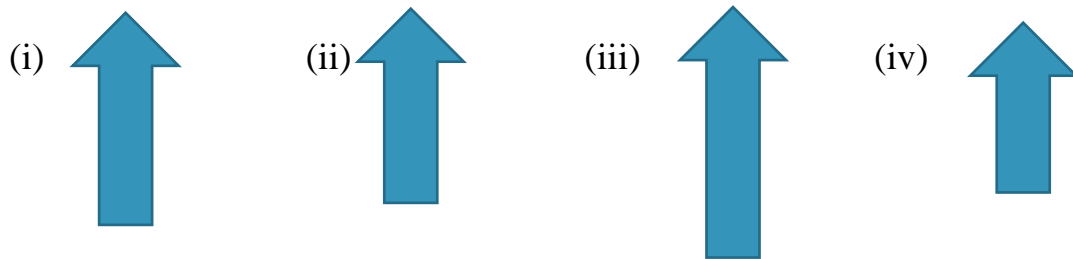
- (a) 
- (b) 
- (c) 
- (d) 

Q8. ADD



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

Q9 . Measurement with your finger. Which is biggest?



- (a) (ii) (b) (i) (c) (iv) (d) (iii)

Q 10. Look at the given picture below



Which of the following correctly represents the above picture?

- (a) $2 + 4 + 2$ (b) $2 + 4 + 2 + 2$ (c) $2 + 2 + 2 + 2$ (d) $4 + 4 + 2$

Q 11. Riya bought six (6) balloons. Suddenly wind came and all the balloons flew away. How many balloons are left with Riya?

- (a) 5 (b) 4 (c) 0 (d) 1

Q 12. I have 5 cars. One car went away. How many cars left.

(a) 3

(b) 2

(c) 4

(d) 5

Answers:

1- (b) 2- (b) 3 (a) 4- (a) 5- (d) 6- (b) 7- (a) 8- (d) 9- (d) 10- (c) 11- (c) 12- (c)

CHAPTER II

Numbers 1 to 9

LEARNING OBJECTIVE

- Establishes one- to -one correspondence between objects and compares one collection with other (concrete and pictorial)
- Recites number names in standard order (1-9) and pairs one number names with only one object.
- Uses cardinality in counting (concrete, pictorial).
- Uses ordinality in counting (concrete, pictorial).
- Uses number count is independent of object arrangement (number conservation).
- Identifies and writes number (1-9).
- Matches objects with correct number (1-9) and creates groups corresponding to a given number (concrete, pictorial).
- Determined if one group has more/ less/ same items as the other; Creates groups with equal number of items (1 to 9) (Numerically and pictorially).
- Completes number sequences by counting forward and backward (1-9).
- Sequences up to three numbers (1-9) in increasing or decreasing order (concrete and pictorial).
- Develops concept of zero and its symbol.

LEARNING OUTCOME

- Classify these objects into groups based on a few physical attributes such as shape size and other observable properties including rolling and sliding
resides number names and count objects upto 20 concretely, pictorially and symbolically.
- Identifiers numbers 1 to 20
- Count objects using numbers 1 to 9
- Compares numbers 1 to 20
- Identifies numbers up to 99 and write numerals
- Works with numbers 1 to 20
- Count objects using numbers 1 to 9 Compares numbers up to 20. For example, tells whether number of girls or number of boys is more in the class Observes, extends and creates patterns of shapes and numbers
- Works with numbers 1 to 20
- Counts objects using numbers 1 to 9 Compares number upto 20. For example, tells whether number of girls or number of boys is more in the class.

Q1. Circle the correct number name (Seventy-Nine)

- (a) 89 (b) 79 (c) 69 (d) 59

Q 2. Recognize the largest number (1-99)

- (a) 81 (b) 87 (c) 98 (d) 54

Q3. Recognize the smallest number (1-99)

- (a) 28 (b) 14 (c) 37 (d) 40

Q 4. Count



- (a) 5 (b) 4 (c) 3 (d) 8

Q 5. What is the correct one ?

- (a) $4 > 9$ (b) $9 > 4$ (c) $3 > 5$ (d) $3 > 3$

Q 6. Which are more? Apples or Mangoes



- (a) Mangoes (b) Apples (c) None (d) Equal

Q7. What comes before and after 6 ?

- ___ 6 ___
(a) 4,5 (b) 7,8 (c) 8,9 (d) 5,7

Answers:

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

CHAPTER III

Addition (single digit, up to a sum of 9)

LEARNING OBJECTIVE

- Uses the vocabulary and concept of addition as "putting together, joining" and that the resulting quantity is more than the original (concretely and pictorially).
- Combines two groups and determine the total quantity for sum not exceeding 9 (concretely and pictorially).
- Adds 1-digit numbers pictorially (sum not exceeding 9).
- Represents addition symbolically (sum not exceeding 9).
- Uses concept of adding zero to a number (concretely, pictorially and numerically).
- Uses commutative property for 1-digit numbers (concretely, pictorially and numerically).
- Composes numbers (up to 9) by addition of smaller numbers in different combinations (concretely, pictorially and numerically).

LEARNING OUTCOME

- Applies addition and subtraction of numbers 1 to 20 in daily life.
- Constructs addition facts up to 9 by using concrete objects.
- Subtract numbers using 1 to 9.
- Develops the concept of zero
- Applies addition and subtraction of numbers 1 to 20 in daily life
- Subtract numbers using 1 to 9

Q 1. The sum of $4 + 5 =$ _____

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

Q 2. Tick the correct one?

- (a) $3+4=6$ (b) $5+2=9$ (c) $3+3=6$ (d) $1+5=7$

Q 3 . The sum of $3 + 2 + 6 =$ _____

- (a) 11 (b) 9 (c) 12 (d) 10

Q 4 . I am a number just before 10 is?

- (a) 11 (b) 9 (c) 12 (d) 10

Q 5. Arun saw 16 ducks. 8 ducks swam away. How many ducks Arun can see now?

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

Q 6 . 10 girls are jumping rope. 10 more girls join them. Now how many girls are jumping rope?

- (a) 15 (b) 18 (c) 19 (d) 20

Answers:

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

CHAPTER IV
Subtraction (single digit, up to 9)

LEARNING OBJECTIVE

- Uses the vocabulary and concept of subtraction as "taking away" and "remove" and that the resulting quantity is less than the original (concretely and pictorially).
- Subtract from and determine the resulting quantity of a subgroup (sum of collection not exceeding 9) (concretely and pictorially).
- Subtract 1-digit numbers pictorially.
- Subtract 1-digit number with vertical arrangement (symbolically with numbers not exceeding 9).
- Uses the concept of subtracting zero from a number (concretely, pictorially and numerically).
- Identifies the missing subtrahend and minuend to make the two groups equal (pictorially and numerically for numbers 1 to 9).

LEARNING OUTCOME

- Applies addition and subtraction of numbers 1 to 20 in daily life.
- Constructs addition facts up to 9 by using concrete objects.
- Subtract numbers using 1 to 9.
- Develops the concept of zero
- Applies addition and subtraction of numbers 1 to 20 in daily life
- Subtract numbers using 1 to 9

Q 1 Which of the following is correct?

(a) $4 - 2 = 3$

(b) $8 - 4 = 5$

(c) $9 + 3 = 11$

(d) $7 - 3 = 4$

Q 2. Tick the correct one.

(a) $3+3 = 7$

(b) $4+4 = 9$

(c) $3+0 = 3$

(d) $5+5 = 10$

Q 3. Compare. $15 + 0$ _____ $17+1$

(a) $<$

(b) $>$

(c) $=$

Q 4. Compare. $9 - 4$ _____ $5+0$

(a) $<$

(b) $>$

(c) $=$

Q 5 . On subtracting $40 - 40$ is

(a) 1

(b) 2

(c) 20

(d) 0

Answers:

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

CHAPTER V Numbers from 10-20

LEARNING OBJECTIVE

- Groups individual objects into 10s (concrete and pictorial).
- **Numerals (10-20):** recites number names in standard order and associates them with the corresponding numbers of items (concrete pictorial) and numerals.
- **Numerals (10-20):** Identifies and write numbers.
- **Numerals (10-20):** Matches objects with correct number and creates groups corresponding to a given number (concrete pictorial).
- **Numerals (10-20):** Composes and decomposes 2 digit numbers symbolically (e. g $17=10+7$) and develops understanding of zero as a placeholder.
- **Numerals (10-20):** Explain how two digits of a two-digit number represents amounts of tens and ones (concretely and pictorially).
- Solve addition using vertical algorithm for 2 digit numbers (upto 20) without carry over.
- **Numerals (10-20):** Determines if one group has more/ less/ same item as the other; Creates groups with equal number of items (Numerically and pictorially).
- Complete number sequences by counting forward and backward, without skip counting.
- **Numerals (10-20):** Sequences up to three numbers in increasing or decreasing order. (Concrete, pictorial, numerical).
- **Numerals (10-20):** Estimate group size in broad ranges (e.g. "less than 5", " more than 10") and locates approximate position of a number on the number line.
- **Numerals (10-20):** Expresses counting fluency (1-10)
- Uses fluency in addition for 1 digit numbers (including 0) up to a total of 10.
- Solve addition using vertical algorithm for 2 digit numbers (upto 20) with carryover.
- Solve addition based real life problems presented orally (using numbers up to 20).
- Uses fluency in subtraction for (1-1 digit) and (2-1digit) including 0.
- Solves subtraction using vertical algorithm for 2 digit numbers (upto 20) without borrowing.
- Solve subtraction based real life problems presented orally (sum not more than 20).

LEARNING OUTCOME

- Identifies number 1 to 20.
- Count objects using numbers 1 to 9

- Compares numbers 1 to 20
- Classifies objects into groups based on a few physical attributes such as shape, size and other observable properties including rolling and sliding.
- Recites number names and counts objects upto 20, concretely, pictorially & symbolically.
- Applies addition and subtraction of numbers 1 to 20 in daily life.
- Constructs addition facts up to 9 by using concrete objects.
- Subtract numbers using 1 to 9.

Q 1. Which one of the following is correct?

- (a) $15 - 4 = 11$ (c) $9 + 3 = 13$
 (b) $22 - 3 = 21$ (d) $10 - 10 = 20$

Q 2. The sum of $3 + 5 =$

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

Q 3. Tick the correct one

- (a) $4 + 4 = 8$ (c) $5 + 5 = 12$
 (b) $3 + 0 = 9$ (d) $3 + 3 = 7$

Q 4. Which sum is greater than 15?

- (a) $9 + 4$ (c) $8 + 5$
 (b) $3 + 10$ (d) $9 + 7$

Q 5. Which is the biggest one?

- (a) 19 (c) 18
 (b) 10 (d) 9

Q 6. Aneesh has 7 bananas and his sister Ishita has 5 bananas. How many bananas do they have altogether ?

- (a) 10 (b) 9 (c) 12 (d) 11

Answers:

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

CHAPTER VI

Time

LEARNING OBJECTIVE

- Identifies and sequences events by time of day and knows related vocabulary.
- Identifies and sequences events within a given activity and knows related vocabulary.
- Names days of the week in sequence and knows related vocabulary.

LEARNING OUTCOME

- Solve day-to-day problems related to addition and subtraction of numbers up to 9.

Q 1. Jessica takes one minute to eat a chocolate and Stephen takes three minutes to eat one chocolate. Who takes more time to eat chocolate?

- (a) Jessica (c) Stephen
(b) None (d) Both

Q 2. Anu reached a Mall at 10:00 am. She shopped there for one hour. At what time she left the mall?

- (a) 12:45 pm (c) 12:30 pm
(b) 11:00 am (d) 11:45 am

Q 3. Ziya reads a story book in one hour and then he reads his science text book in 2 hours. How much time he takes to read these two books?

- (a) 5 hours (c) 3 hours
(b) 2 hours (d) 1 hour

Q 4. How many days are there in two weeks?

- (a) 14 days (c) 10 days
(b) 12 days (d) 20 days

Q 5. The day that comes before Sunday but after Friday is -----

- (a) Monday (c) Tuesday
(b) Saturday (d) Wednesday

Answers:

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

CHAPTER VII

Measurement

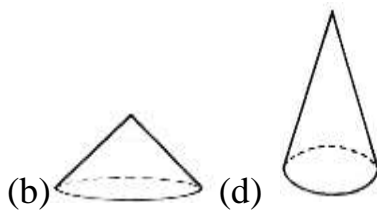
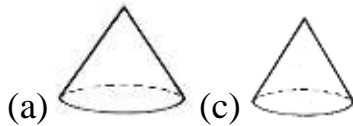
LEARNING OBJECTIVE

- Compares length and height of objects and starts to measure then using non-standard units
- Measures, compares and orders length and heights of common objects using non-standard units
- Compares objects by weight and understands related vocabulary

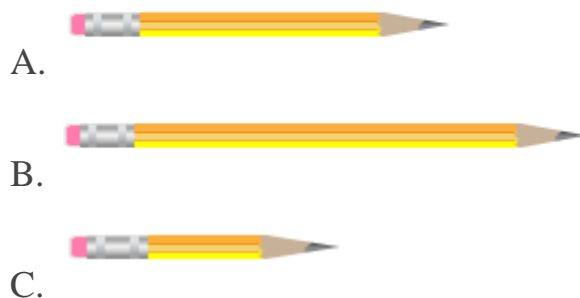
LEARNING OUTCOME

- Describe the physical features of various solids/ shapes in her own language
- Estimate and measures short lengths using non-uniform units like a finger, hand span, length of a forearm, footsteps etc.

Q 1. Which cone is the longest?



Q 2. Look at the pencils:



Which correctly orders the pencils shortest to longest?

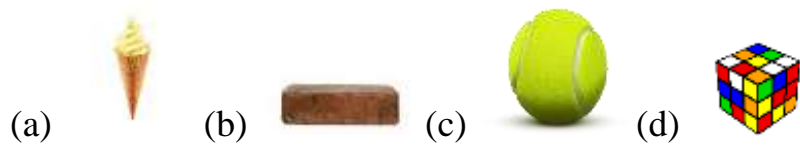
- (a) A, B, C
- (b) B, C, A
- (c) C, A, B

Q 3. Which lists the objects from lightest to heaviest?



- (a) corn, turkey, leaves
- (b) leaves, corn, turkey
- (c) turkey, leaves, corn

Q 4. Which object is Heaviest ?



Answers:

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

CHAPTER VIII
Numbers from 21 to 50

LEARNING OBJECTIVE

- Numerals (21 to 50): Recites number names in standard order and associates them with corresponding number of items (pictorial and numerals)
- Numerals (10 to 50): Identifies and writes numbers
- Numerals (21 to 50): Matches objects with correct number and creates groups corresponding to a given number (pictorial).
- Numerals (21 to 50): Completes number sequences by counting forward and backward

LEARNING OUTCOME

- Identifies numbers up to 99 and writes numerals
- Observes extends and creates patterns of shapes and numbers

Q 1. Order these numbers from lowest to highest: 12, 25, 18, 23, 14

(a) 23, 14, 18, 25, 12

(b) 25, 23, 18, 14, 12

(c) 12, 14, 18, 23, 25

(d) 14, 12, 18, 23, 25

Q 2. My book has 28 pages. I've read 23 pages. How many pages are left to read?

(a) 6

(b) 2

(c) 4

(d) 5

Q 3. The biggest number among 56, 28, 68 and 39 is –

(a) 56

(b) 28

(c) 68

(d) 39

Q 4. In Which option the difference is 40.

(a) 40-15

(b) 50-15

(c) 70-20

(d) 80-40

Q 5. Tick the number just before 39 is –

(a) 41

(b) 38

(c) 36

(d) 35

Answers:

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

CHAPTER IX Data Handling

LEARNING OBJECTIVE

- Classifies objects into given categories and count the numbers of objects in each category (concretely).
- Organizes, represents, and interprets simple information (pictorially and numerically).

LEARNING OUTCOME

- Collects, records (using pictures /numerals) and interpret simple information by looking at visuals

Q 1 .How many Triangles are there in the figure?



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

Q2. How many circles are there in the figure?



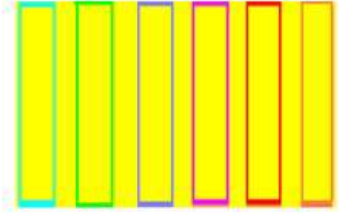
- (a) 4 (b) 5
(c) 6 (d) 1

Q 3. How many triangles are there in the figure?



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

Q 4. How many rectangles are there in the figure?



(a) 1

(b) 5

(c) 2

(d) 6

Answers:

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

CHAPTER X

Patterns

LEARNING OBJECTIVE

- Numerals (1 to 50): Skip counting forward and backwards in 10s and 5s
- Numerals (1 to 50): Skip counting forward and backwards in 2s and 3s
- Observes and repeats patterns with shapes and pictures.

LEARNING OUTCOME

- Observes extends and creates patterns of shapes and numbers.

Q 1. Complete the pattern



- (a)
- (b)
- (c)
- (d)

Q 2. What will come in the blank circle?



- (a) 3 (b) 7
- (c) 10 (d) 6

Q 3. Look at the Pattern. What will be the next shape in the following pattern?



Answers:

1- (b) 2- (d) 3- (b)

CHAPTER XII

Money

LEARNING OBJECTIVE

- Understands the denomination of commonly used coins and notes
- Adds 1- and 2-rupee coins to make a given amount
- Estimates/guesses the value of everyday items

LEARNING OUTCOME

- Solve day-to-day problems related to addition and subtraction of numbers up to 9.

Q 1. What is the total of following notes?



(a) 80

(b) 75

(c) 85

(d) 90

Q 2. Which of the given note is of least value?



(a) 10

(b) 500

(c) 5

(d) 100

Q 3. Neeta wants to purchase a doll of ₹ 30. Which of the following matches she can use to purchase the doll?



Answers:

1- (b) 2- (c) 3- (a)

CHAPTER XIII

How many

LEARNING OBJECTIVE

- Apply the learning in various contexts

LEARNING OUTCOME

- Solve day-to-day problems related to addition and subtraction of numbers up to 9.

Q 1. Find the total numbers of pencils of Raman and Rahul?



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

Q 2 Neeru has  balloons. Out of which 2 are burst. How many balloons are left?

- (a) 3 (b) 2
(c) 1 (d) 0

Q 3. Daksh have 5 chocolates. Dimple gave him 2 more. Yash take 3 from him. How many chocolates Daksh have altogether?

- (a) 7 (b) 8
(c) 9 (d) 4

Answers:

1- (d) 2- (a) 3- (d)

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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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