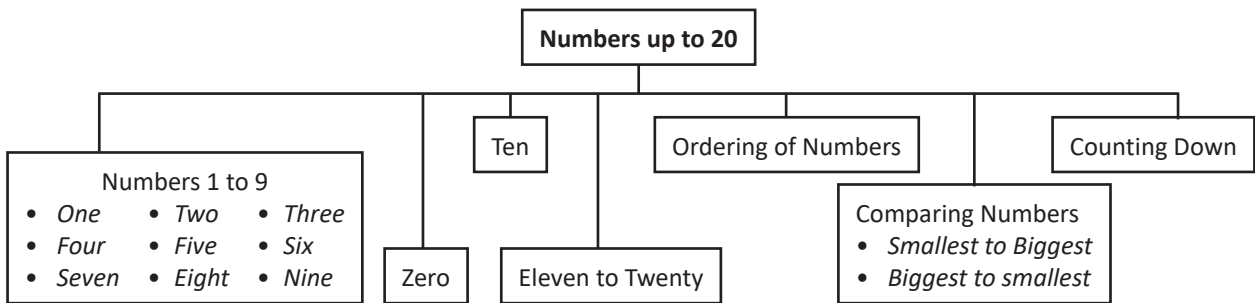# Numbers up to 20

LESSON OUTCOMES

At the end of the lesson students will be able to:

- Count and read numbers up to 20.
- Say what number comes before, after and between numbers.
- Compare two numbers and say which is greater.
- Arrange numbers from the smallest to the biggest and from the biggest to the smallest.

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                          Numbers up to 20

   Numbers 1 to 9        Ten        Ordering of Numbers      Counting Down
   • One   • Two  • Three
   • Four  • Five • Six     Zero   Eleven to Twenty    Comparing Numbers
   • Seven • Eight • Nine                               • Smallest to Biggest
                                                        • Biggest to smallest
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PREREQUISITE KNOWLEDGE

- Matching objects with similar numbers
- Prenumber concepts
- Tracing the given shapes

LESSON PLAN   Number of Sessions: 19

Session Plan

Session 1: Introductions: [IL: World Around us, SDG – Sustainable cities and communities]; Numbers 1 to 9; *One*; Practice 1 [IL: India Knowledge]

Session 2: *Two*; Practice 2 [IL: EVS], Digital/AR - One-horned Rhino; *Three*; Practice 3

Session 3: *Four*; *Five*; Practice 4

Session 4: *Six*; *Seven*; *Eight*; *Nine*;

Session 5: Digital/PG: Numbers 1 - 9 on Real Life, Numbers 1 - 9 on Dice; Practice 5

Session 6: Zero [IL: World Around us, India Knowledge, Values]; TRM/Add-on activity 1-To reinforce the concept of zero [Game-based Learning; MI]

Session 7: Digital/Animation - Zero; Practice 6

Session 8: Ten

Session 9: Eleven to Twenty

Session 10: Eleven to Twenty (Continued)

Session 11: Practice 7; Digital/Animation - Numbers up to 20

Session 12: Ordering of Numbers; Before, After and Between; TRM/Add-on activity 2-To find the number greater than or less than the given number [Game-based Learning; MI]

Session 13: Comparing Numbers [IL: India Knowledge, Values]; Digital/IA: Comparing with Numbers, Comparing with Objects

Session 14: Explore! [Game-based Learning; Discovery-based Learning]

Session 15: *Smallest to Biggest; Biggest to smallest*; Practice 8

Session 16: Counting Down; Practice 9; Thinking Cap! [21C: Critical Thinking]

Session 17: Worksheet 1

Session 18: Worksheet 2 [Higher Order Thinking Skills]

Session 19: TRM/Worksheets

Introduction [IL: World Around Us, SDG – Sustainable cities and communities]

- Begin by asking, "What is a park? Why do people visit parks?"
- Show a picture of a tyre park and discuss with students or ask them why parks are important, why towns and cities need parks.
- Elicit from the students that parks have many trees and plants that clean the air, making it healthier for people to breathe. They are places where children can enjoy nature. Describe how parks have swings, slides, and open spaces where children can play games, run and exercise. This helps them stay healthy and strong. Explain that they are great places to meet other children and make new friends. Playing together helps children learn to share and be kind. Highlight that parks are also places where families can spend time together, having picnics or playing games.
- Explain that sustainable cities are places where people live happily and resources are used wisely to ensure a good quality of life for everyone.
- Explain how transforming old tyres into playgrounds reduces waste and creates fun spaces for kids.
- Ask students, "What else can we reuse to improve our community?"
- Conclude with a reflection: "If you could add a reused thing to make your city more sustainable, what would it be?"

Numbers 1 to 9 [IL: EVS]

- Help students learn numbers 1 to 9 and their number names using the coursebook. Demonstrate tracing these numbers on the board.
- Associate each number with the number of tyres used in tyre park games.
- Connect numbers to features of animals, such as the one-horned rhino, a spider's eight legs, a bird's beak, or a cow's two horns, to help students relate numbers to the world around them.
- Encourage counting familiar classroom objects to reinforce their understanding.

Zero [IL: World Around us, India Knowledge, Values]

- Use the context of celebrating the Indian festival of Ganesh Chathurthi as a family by making and sharing sweets.
- Highlight the importance of festivals, explaining that they bring family members together, share joy, and create lasting memories.
- Help students understand that these shared experiences strengthen relationships and foster unity.
- Encourage students to talk about the different festivals they celebrate in their families and why they enjoy them.
- Ask students to find out what the sweet *modak* is called in their language.
- Explain that zero represents 'nothing' or 'no thing.'
- Ask students if they waste food or eat everything on their plate, ensuring nothing is left at the end.

To reinforce the concept of zero

- Prepare a set of objects like small toys, erasers or big buttons. Place these objects in various locations around the classroom, making sure some locations are left empty.
- Explain to the students that they will go on a "Zero Hunt" to find places with no objects.
- Give each student a card with the number '0' written on it.
- Ask students to walk around the classroom and place their '0' card in front of the locations where there are no objects.
- Once all the students have placed their cards, walk around together as a class to check each location. Discuss why they placed the '0' card where they did, reinforcing the idea that '0' means that nothing is there.
- Repeat the activity with different locations to ensure understanding.

Eleven to Twenty

- Teach the numbers and the number names 11 to 20 using the counting string.

Ordering of Numbers

- Explain how to represent each number using the tens frame.
- Explain how to order the numbers from 1 to 20.
- Explain the concepts of 'before,' 'after,' and 'between' numbers using the coursebook.

To find the number greater than or less than a given number

- Draw a number line on the floor of the classroom.
- Give each student a number card up to 20.
- Create a fun challenge by asking each student to "jump" to a number that is greater or smaller than their current number, according to your instructions.
- Check if they have jumped to the correct number on the number line.

Comparing Numbers   [IL: India Knowledge, Values] [Game-based Learning; Discovery-based Learning]

- Explain to the students that Channapatana is a place in India known for its colourful wooden toys. Point out that the toys are painted with natural dyes, which are better for the planet than chemical paints.
- Encourage students to share experiences with traditional toys from their regions.
- Teach them to compare objects using symbols ($>$, $<$, $=$).
- Introduce the "Saa-Boo-Three" game, which originates from Tamil Nadu. Explain that this traditional and fun game brings children together and helps build unity.
- Engage students with this game-based and discovery-based learning approach, reinforcing math concepts like counting and comparison in an enjoyable, hands-on way while also learning traditional values.
- Ask students to name the games they play during recess and at home. Encourage them to discover regional games of their area.

Smallest to Biggest; Biggest to Smallest

- Explain the concept of arranging the numbers from the biggest to the smallest and from the smallest to the biggest using the context of Banu and her brother arranging the number of books in two different orders.
- Encourage students to practice this concept by rearranging other sets of numbers in the coursebook or with objects in the classroom.

Counting Down

- Begin by discussing the game of carrom, asking students if they have played it before and encouraging them to share experiences.
- Introduce the concept of counting down, explaining how Banu and Dev play carrom by putting coins into the hole, reducing the number on the board.
- Highlight how carrom integrates traditional Indian games into learning, making math concepts like counting down and number sequencing culturally relevant and enjoyable.
- Encourage students to practice counting down in daily activities.

WORKSHEETS 1 AND 2

- Worksheet 1 has questions that test the understanding of concepts and have a few HOTS questions on numbers 1 to 20.
- Worksheet 2 has Higher Order Thinking Skills (HOTS) questions on numbers 1 to 20.
- Guide students to complete the worksheets.
- You can give these worksheets as home assignments or discuss them in the classroom.

A. MCQs

1. What is the number after 4?

   a) 3   b) 5   c) 2   d) 1

2. What is the number before 9?

   a) 8   b) 10   c) 17   d) 11

3. What number comes between 7 and 9?

   a) 8   b) 6   c) 10   d) 18

4. How many fingers are on one hand?

   a) 4   b) 5   c) 6   d) 7

5. What is the numeral for the number 'eleven'?

   a) 10   b) 11   c) 12   d) 13

B. Fill in the blanks.

1. The number before 7 is ____.   2. The number after 12 is ____.

3. The number between 4 and 6 is ____.   4. 2, 3, ____, 5, ____, 7, ____, 9

C. Write the numeral.

1. Two: _____   2. Six: _____   3. Ten: _____   4. Twelve: _____

5. Thirteen: _____   6. Fifteen: _____   7. Eighteen: _____   8. Nineteen: _____

D. Write the number name.

1. 3: _____   2. 5: _____   3. 9: _____

4. 16: _____   5. 17: _____   6. 20: _____

E. Count the number of animals in the picture. Write the number and the number name.
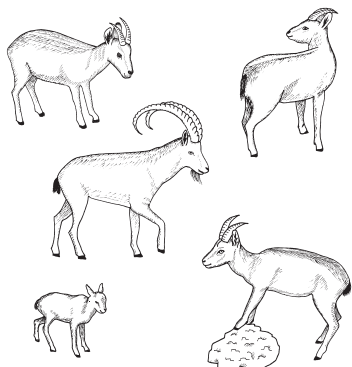
Number: _____
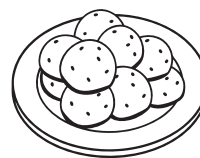
Number name: _____

F. Colour the bananas. Count and write the number in the blank.
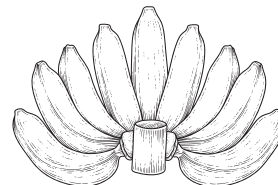
Number: _____

Number name: _____

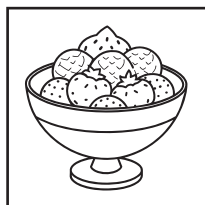**G.** Look at the picture of the plate of pancakes. Colour these pancakes.

    1. How many pancakes are there in the picture? _____

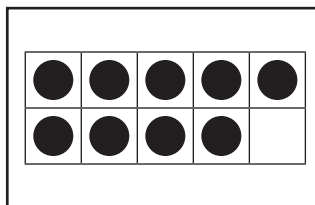   2. Draw one more pancake. How many will there be now? _____

H. Fill in the numbers from 20 to 1.

I. Colour all the boxes that show 9 in any form.

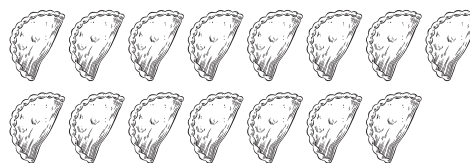   1.   2.   3.
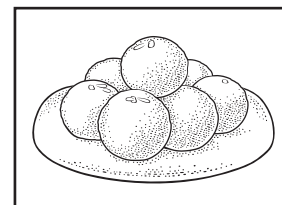
J. Answer the following.

    1. Colour 12 samosas.

    2. How many samosas are not coloured? _____

    3. How many samosas are there in all? _____
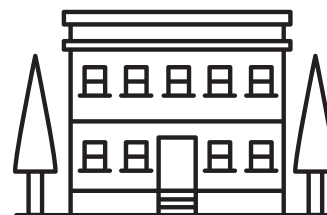
K. Compare the numbers.

    1. 12 ☐ 13   2. 10 ☐ 8   3. 2 ☐ 7   4. 9 ☐ 9

L. Arrange the numbers 12, 16, 10 in the ascending order. _____

M. Arrange the numbers 9, 4, 19 in the descending order. _____

N. Look at the picture and answer the following questions.

    1. How many windows are there in the house? _____

    2. How many doors are there in the house? _____

    3. How many floors are there in the house? _____

    4. How many trees are there in the picture? _____

O. There are 20 flowers. Colour the first 10 flowers in one colour and the remaining flowers in another colour. How many sets of 10s are there in 20? _____
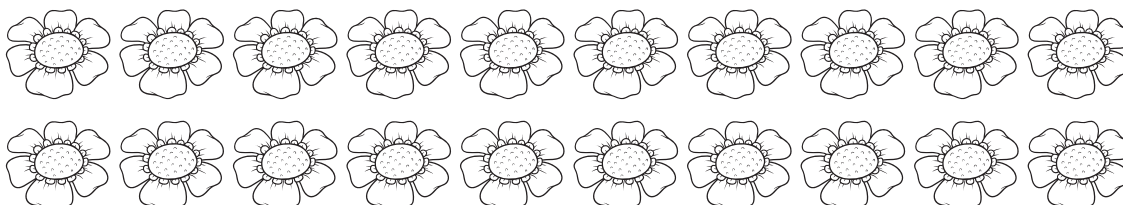
A. MCQs

1. How many legs does a cow have?

a) two   b) four   c) eight   d) sixteen

2. Which is the number after 9?

a) 10   b) 8   c) 7   d) 6

3. Which among these is the biggest number?

a) 15   b) 12   c) 17   d) 14

4. Which among these is the smallest number?

a) 9   b) 10   c) 19   d) 20

5. There are no desks in the class. Which of these numbers shows the number of desks?

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

B. Colour 20 beads.

**C.** Write the numbers from 9 to 1 on the steps starting from the top.
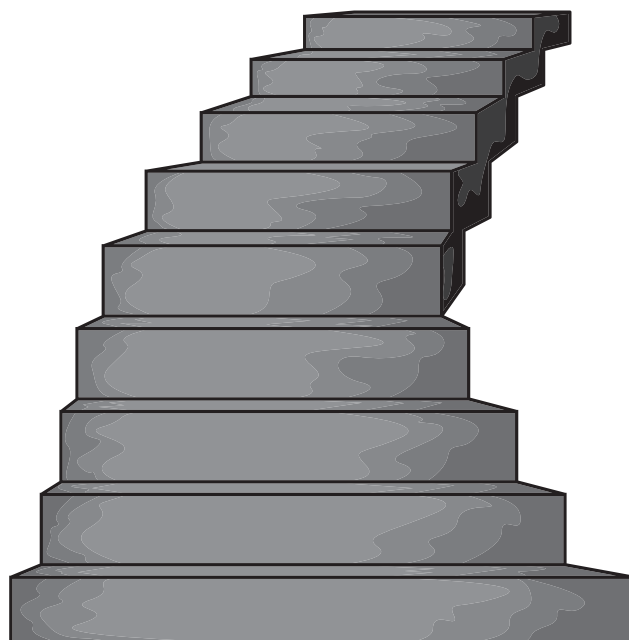
A. A school asks the children participating in the singing competition to stand in a queue.
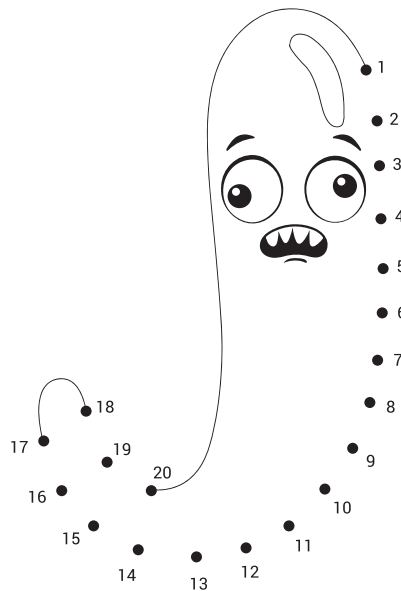

1. How many children are standing in the queue? _____

2. Is the number less than 10 or more than 10? _____

3. If one student starts singing, how many students will be in the queue?

B. Write the numbers of mushrooms in the boxes and compare them.


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┌──────┐   ┌──────┐   ┌──────┐
│      │   │ < / >│   │      │
└──────┘   └──────┘   └──────┘
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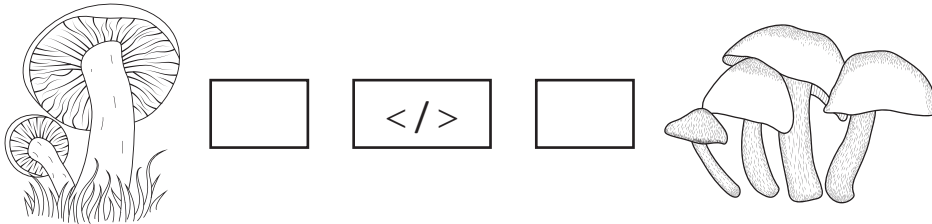
C. Join the dots from 1 to 20.

ANSWER KEY TO THE QUESTION BANK

A. 1. b   2. a   3. a   4. b   5. b   **B.** 1. 6   2. 13   3. 5   4. 4, 6, 8   **C.** 1. 2   2. 6   3. 10
4. 12   5. 13   6. 15   7. 18   8. 19   **D.** 1. Three   2. Five   3. Nine   4. Sixteen
5. Seventeen   6. Twenty   **E.** 5, Five   **F.** 9, Nine   **G.** 1. 9 pancakes   2. 10 pancakes
H. 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1   **I.** 1., 2.   **J.** 2. 3 samosas
3. 15 samosas   **K.** 1. <   2. >   3. <   4. =   **L.** 10, 12, 16   **M.** 19, 9, 4
N. 1. 9 windows   2. 1 door   3. 2 floors   4. 2 trees   **O.** 2 sets of tens

ANSWER KEY TO THE WORKSHEET 1

A. 1. b   2. a   3. c   4. a   5. d   **B.** ⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⬭⭕⭕⭕⭕⭕
C. 9, 8, 7, 6, 5, 4, 3, 2, 1

ANSWER KEY TO THE WORKSHEET 2

A. 1. 8 children   2. Less than 10   3. 7 children   **B.** 2, 4, <