

Thinking Skills

- Understanding
- Fluency
- Problem Solving
- Reasoning

Teaching Suggestions

- This test can be administered to each student individually or it can be discussed and completed as a class group.
- Discuss the picture. 'Which animal is larger?' 'What are they doing?' 'Why do you think they are doing this?'
- Consider each question in turn. After all questions have been asked, sum up.

Proficiencies Tested

- **Understanding and Fluency:** counting and finding and describing round 3D objects.
- **Problem Solving and Reasoning:** students explain what the animals are doing and what could happen if the needle sticks into the balloon. Students are asked to predict why the mouse with the balloons is worried and to explain how the animals are different, giving reasons. They are asked to make up a question of their own.

K Thinking Skills



- What can you count in this picture?
- How many balloons are in this picture?
- Colour the round things red.
- What could happen when the mouse sticks the needle into the balloon?
- Why is the mouse with balloons worried?
- What are the mice wearing?
- How are these creatures different?
- Make up a question about the picture.

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1A The Number One

Content strand: Number and Algebra

Substrand: Whole Numbers

Content statements:

- Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond.

Outcomes: MAe-1WM, MAe-3WM, MAe-4NA

Teaching Suggestions

- Choose 1s from a collection of numeral cards (BLM 1, p.143) and word labels (BLM 2, p. 144).
- Place one different item beside each card.
- Make the digit 1 out of playdough. Trace over 1s made out of sandpaper or trace 1s in wet sand etc.
- Count forwards to 10 using rhythmic counting or body percussion, e.g. clap hands, touch head, touch nose.
- Draw or cut out pictures from magazines that show one object. Paste each picture on a page and label it, e.g. 'In the fruit bowl I can see one apple'.
- Identify any other place in the classroom where the number 1 may be written, e.g. on the class calendar.
- In Question 1, discuss then trace the word and numeral for one. Have students trace each digit 1, beginning at the dot.

Fun Spot

- Discuss the features on the face. In particular, note that there is one nose, tongue, face, mouth and head, and one head of hair.

Extension Work

- Have a portrait gallery. Students paint a self-portrait and these are displayed.
- Give each student a picture card of an object that can be found in the room. Ask students to find and then display the one object on their card.

Language

count, counts forwards, one, two, three ... twenty, more than, less than, match, equal, not as many as

Resources

- any classroom objects that can be counted, e.g. counters, buttons, beads, toys, plastic animals
- playdough, wet sand, sandpaper
- magazines, glue, paper
- paint
- picture cards
- numeral cards (BLM 1, p. 143)
- word labels (BLM 2, p. 144)
- IWB DVD K

Cross-reference

See also: pp. 3, 6, 7, 10, 11, 14

Year 1 p. 2

Evaluation

Is the student able to do the following?

- read and represent the number one
- count forwards to 10

Answers

- 1 The cake, fish, elephant and sun will be circled. The word 'one' and numerals will be traced.
- 2 1 fish will be drawn and 1 written in the box.

Fun Spot

The nose, tongue and mouth should be coloured. Discuss that there is also one face, one head and one head of hair.

1A The Number One

1 Circle the groups with one object. Trace the numerals and the word "one".

2 Draw one fish.

How many fish did you draw?

Colour the parts that are shown only once.

2 Whole Numbers: Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond.
Outcomes: MAe-1WM, MAe-3WM, MAe-4NA

1B The Number Two

Content strand: Number and Algebra

Substrand: Whole Numbers

Content statements:

- Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond.

Outcomes: MAe-1WM, MAe-2WM, MAe-4NA

Teaching Suggestions

- Use activities and experiences that develop the concept of two. Read the word for two (**BLM 2**, p. 144).
- Use concrete materials to make groups of two objects, two teddies, two blocks, two fingers etc.
- Count forwards to 10 using rhythmic counting where every second number said is clapped or stamped etc.
- Sing action rhymes for two, e.g. *Two Little Dicky Birds*.
- Have the students draw pictures of themselves and make each two a different colour, e.g. two brown eyes, two pink ears.
- Discuss and then trace the numeral and word (**BLM 1**, p. 143, and **BLM 2**, p. 144) for two.
- Practise drawing the numeral 2 in the air. Trace over 2s made from sandpaper.
- Identify any other place in the classroom where the number 2 may be written, e.g. on the computer keyboard.

- In Question 1, have students trace each 2. Emphasise the correct starting point and direction of movement.

Fun Spot

- Ask students to draw two balloons and tell a story about the balloons.
- Ask students, 'How many balloons would be left if one balloon burst?'

Extension Work

- Make a frieze of Noah's Ark and the animals going in two by two.
- Have students trace their two hands or feet. Cut out and display.

Language

count, counts forwards, one, two, three ... twenty, more than, less than, match, equal, not as many as, next, before

Resources

- any classroom objects that can be counted, e.g. toys, place-value ones, blocks, teddies
- sandpaper
- paint, glue, paper
- songs and rhymes
- numeral cards (**BLM 1**, p. 143)
- word labels (**BLM 2**, p. 144)
- IWB DVD K

Cross-reference

See also: pp. 2, 6, 7, 10, 11, 14
Year 1 p. 2

Evaluation

Is the student able to do the following?

- read and represent the number two
- count forwards to 10

1B The Number Two

1 Circle the groups of two. Trace the numerals and the word "two".

2 Colour two in each row. Trace the numbers. Draw two balloons. Tell a story about the balloons.

Whole Numbers: Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond.
Outcomes: MAe-1WM, MAe-2WM, MAe-4NA

Answers

- 1 The presents, hamburgers and grubs will be circled. The word 'two' and numerals will be traced.
- 2 In each row the numeral will be traced and 2 objects coloured.

Fun Spot

2 balloons will be drawn. Students should tell a story about the balloons.

10 Comparing Groups

Content strand: Number and Algebra

Substrand: Patterns and Algebra

Content statements:

- Sort and classify familiar objects and explain the basis for these classifications.
- Copy, continue and create patterns with objects and drawings.

Content strand: Statistics and Probability

Substrand: Data

Content statements:

- Answer yes/no questions to collect information.

Outcomes: MAe-1WM, MAe-3WM, MAe-8NA, MAe-17SP

Activity

- Ask students to sort a variety of objects into groups. Ask them to explain how they made their group.

Extension Work

- Discuss suitable groupings and shelf positions for class items, e.g. books, toys, objects in a 'class shop'.
- Discuss how and why objects are sorted in the real world, e.g. food in a supermarket, types of books in the library.

Language

like, alike, belongs, does not belong, the same as, groups of, sort, different, big, little, colour names, not big, not little

Resources

- any classroom objects that can be sorted, e.g. blocks, toys, Lego™, Multilink
- cups, cutlery, saucers, clothing
- plastic cars, animals, people etc.
- IWB DVD-K

Cross-reference

See also: pp. 41, 82, 108
Year 1 p. 36

Evaluation

Is the student able to do the following?

- sort objects into groups according to characteristics

Teaching Suggestions

- Give students objects to explore and discuss. Students sort the objects according to one characteristic, e.g. colour, size, shape.
- Ask students to investigate where items are sorted and stored at home, e.g. cutlery, crockery, toys, books.
- In Question 1, discuss the objects on the page and possible groupings. Identify groups by using colour, e.g. colour the dogs brown, the things that live in the sea blue, the fruit red, the things that fly green.

10 Comparing Groups

1 Colour each group differently.

How have you sorted the objects?

Which group has the most?

Sort groups of objects in your classroom. Talk about how you sorted the objects.

You could sort pencils, blocks, toys or counters.

ACTIVITY

4 Patterns and Algebra: Sort and classify familiar objects and explain the basis for these classifications. Copy, continue and create patterns with objects and drawings. Data: Answer yes/no questions to collect information. Outcomes: MAe-3WM, MAe-3WA, MAe-8NA, MAe-17SP

Answers

- 1 Answers will vary.
Students may link: dogs; fruit; things that fly; things that live in the sea; etc.
There are more dogs.

Activity

Students will sort objects into groups according to certain characteristics, e.g. colour, size, shape.

1D Long, Short and Tall

Content strand: Measurement and Geometry

Substrand: Length

Content statements:

- Use direct and indirect comparisons to decide which is longer and explain their reasoning using everyday language.

Outcomes: MAe-1WM, MAe-3WM, MAe-9MG

Teaching Suggestions

- Demonstrate how to compare the length of two objects by placing them beside each other, then end-to-end.
- Discuss why it is difficult to compare lengths when the objects are not beside each other.
- Encourage students to explore and experiment with a wide variety of materials, e.g. craft sticks, Lego and blocks. Allow them to construct and arrange the materials. Encourage the language of length.
- Categorise objects into long and short. Use pictures, photos and objects in the environment.
- Discuss the fact that the giraffe is taller than the girl so the girl is shorter than the giraffe.
- Use the language of length regularly to describe a variety of situations, e.g. 'That's a long line' (when students are lining up); 'That was a short song'; 'Let's have a long/short race'; 'He is a tall man'.
- Discuss comparative language, ie long, longer, longest, short, shorter, shortest, tall, taller, tallest.

Extension Work

- Read stories about long and short people, e.g. *Thumbelina*, *Jack and the Beanstalk*, *Tom Thumb* or *Snow White and the Seven Dwarfs*.
- Sort collected sticks into pairs (one long and one short), regroup, then sort according to thickness (or straightness or curviness).

Language

long, longer, longest, short, shorter, shortest, tall, straight, curved, longer than, shorter than, taller than

Resources

- craft sticks, blocks, Lego
- magazine pictures, any classroom objects
- sticks
- stories
- IWB DVD K

Cross-reference

See also: pp. 24, 33, 57, 80, 104, 117
Year 1 p. 32

Evaluation

Is the student able to do the following?

- describe objects in terms of long, short or tall
- make a long or a short construction

1D Long, Short and Tall

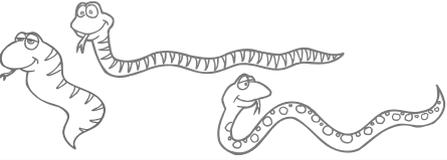
1 Draw lines to match.

short long tall



2 Draw a tall tree. Draw two short arrows. Draw a long scarf.

3 Colour the long snakes. Draw two more short snakes.



Length: Use direct and indirect comparisons to decide which is longer, and explain their reasoning using everyday language.
Outcomes: MAe-1WM, MAe-3WM, MAe-9MG

Answers

- 1 The kite has a long tail.
The girl is short.
The giraffe is tall.
- 2 A tall tree, 2 short arrows and a long scarf will be drawn.
- 3 The 2 long snakes will be coloured.
2 short snakes will be drawn.

2A The Number Three

Content strand: Number and Algebra

Substrand: Whole Numbers

Content statements:

- Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond.

Outcomes: MAe-1WM, MAe-2WM, MAe-4NA

Teaching Suggestions

- Read stories about three, e.g. *The Three Little Pigs*, *The Three Billy Goats Gruff* and *Goldilocks and the Three Bears*.
- Sing songs about three, e.g. *Baa Baa Black Sheep*, *Three Blind Mice*. Do mime and role-play activities.
- Count forwards to 10 using rhythmic counting where every third number said is clapped or stamped. Give students practice in saying numbers before or after a given number.
- Give experiences in making and matching groups of three using a wide variety of concrete materials. Use numeral cards (BLM 1, p. 143) and word labels (BLM 2, p. 144). Discuss the word and numeral for three.
- In Question 1, have students trace each 3. Emphasise the correct starting point and direction of movement.

Investigation

- Ask students to count three lollies and then circle them. Remind them that they should answer the question in the box. Ask students to explain their answer.

Extension Work

- Make a frieze of *The Three Little Pigs* and label, e.g. 'Here are 3 pigs', 'Here are 3 houses'.
- Give counting practice, extending the students according to their abilities (BLM 3, p. 145).
- Make numerals by tracing, modelling playdough, etc.
- On a calculator, fill the screen with 1s, 2s and 3s. (Explain how the calculator is turned on/off and cleared.)

Language

count, counting, forwards, one, two, three... twenty, more than, less than, match, equal, not as many as, next, before, after, between, one more than, one less than

Resources

- any classroom objects that can be counted, e.g. counters, buttons, beads, toys, plastic animals
- playdough, sand
- paint, glue, paper
- songs and stories
- calculators
- numeral cards (BLM 1, p. 143)
- word labels (BLM 2, p. 144)
- number chart (BLM 3, p. 145)
- IWB DVD K

Cross-reference

See also: pp. 2, 3, 7, 10, 11, 14

Year 1 p. 2

Evaluation

Is the student able to do the following?

- read and represent the number three
- count forwards to 10

2A The Number Three

1 Colour groups that show three. Trace the numerals and the word 'three'.

2 Draw three spots on each ladybird.

3 Circle groups of three lollies.

4 Write the numeral before or after.

6 Whole Numbers: Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond.
Outcomes: MAe-1WM, MAe-2WM, MAe-4NA

Answers

- 1 The echidnas, pencils and birds will be coloured. The word 'three' and numerals will be traced.
- 2 Students will draw 3 spots on each ladybird.
- 3 3 groups of 3 lollies will be circled. Students will discuss their answers.
- 4 3, 2

2B The Number Four

Content strand: Number and Algebra

Substrand: Whole Numbers

Content statements:

- Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond.

Outcomes: MAe-1WM, MAe-3WM, MAe-4NA

Teaching Suggestions

- Count, match and sort objects to make groups of four. Match groups with numeral cards (BLM 1, p. 143) and word labels (BLM 2, p. 144) or dot cards (BLM 7, p. 149).
- Direct students to fold a piece of paper into four. Place four things in each section, e.g. gumnuts, counters.
- Use four craft sticks to make a square paddock. Inside each, place four 4-legged animals, e.g. sheep, cows, dogs.
- Make a class book of animals with four legs.
- Count forwards to 10 using rhythmic counting where every fourth number said is clapped or stamped. Give students practice in saying numbers before or after a given number.

Investigation

- Discuss the partitioning patterns for four. Ask students to draw two of the dot patterns.

Extension Work

- Play games involving four players, e.g. Ludo.
- Divide the room into four and label each section 1 to 4. Have students walk around to music. When the music stops, select a card from 1 to 4 to eliminate students in that section. Repeat until one child remains.
- Arrange four blocks to make interesting shapes. Repeat these shapes to make patterns.

Language

count, counting, forwards, one, two, three, four ... twenty, more than, less than, match, equal, not as many as, next, before, after, between

Resources

- any classroom objects that can be counted, e.g. gumnuts, toys, place-value ones, blocks
- craft sticks, toy four-legged animals
- paper
- games for four players, e.g. Ludo
- numeral cards (BLM 1, p. 143)
- word labels (BLM 2, p. 144)
- dot cards (BLM 7, p. 149)
- IWB DVD K

Cross-reference

See also: pp. 2, 3, 6, 10, 11, 14
Year 1 p. 2

Evaluation

Is the student able to do the following?

- read and represent the number four
- count forwards to 10

Answers

- 1 Lollies, birds, bears and possums will be circled. The word 'four' and numerals will be traced.
- 2 Answers will vary. Objects will be drawn to match each numeral (4, 3, 2, 1).
- 3 Answers will vary, e.g. or .

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Matching

Content strand: Number and Algebra

Substrand: Whole Numbers

Content statements:

- Compare, order and make correspondences between collections, initially to 20, and explain reasoning.

Outcomes: MAe-1WM, MAe-2WM, MAe-4NA

Extension Work

- Play Musical Chairs. Discuss how it works.
- Provide activities where two groups of the same number of objects are placed in different arrangements. Students compare and count,



Language

one-to-one, sets, groups, compare, each, enough, the same, not the same, belongs, match, how many, equal, not equal

Resources

- any classroom objects that can be counted and matched, e.g. lids, containers, pegs, pegboards, egg cartons, beads, blocks, buttons, counters
- IWB DVD K

Cross-reference

See also: pp. 23, 28, 54, 63

Year 1 p. 28

Evaluation

Is the student able to do the following?

- match sets of objects by one-to-one correspondence
- compare and count sets of objects using one-to-one correspondence

Teaching Suggestions

- Demonstrate and give students lots of practice in matching objects one-to-one. Count the size of groups.
- Use any classroom objects to match one-to-one, e.g. put a lid on each container, put a peg in each hole of a pegboard, fill each hollow of an egg carton with an object. Count the objects.
- Use daily situations to match objects one-to-one, e.g. handing out books.
- In Question 1, discuss the pictures. Have students draw a line to match the food that each living thing might like to eat. Count the living things. Count the foods.
- In Question 2, discuss the two rows of beads.

Fun Spot

- Explain to students that in order for the boy to reach the food, the route taken cannot be blocked. Ask students to use a finger to trace the path before using a pencil.

Answers

- 1 Possible matches: dog and bone; girl and ice cream; mouse and cheese; rabbit and carrot; monkey and banana.
- 2 Answers will vary.
- 3 4 balls will be drawn.

Fun Spot

The boy eats the banana.

2D Looking for Patterns

Content strand: Number and Algebra

Substrand: Patterns and Algebra

Content statements:

- Sort and classify familiar objects and explain the basis for these classifications.
- Copy, continue and create patterns with objects and drawings.

Outcomes: MAe-1WM, MAe-3WM, MAe-8NA

Teaching Suggestions

- Display simple patterns using shapes, colours or objects and discuss them with the students. Ask, 'What would come next?' Begin with patterns that have two elements repeating.
- Model how to create a pattern. Have students copy simple patterns and talk about them.
- Have students create a variety of patterns using pattern blocks, colours or a computer program.
- Create a patterns wall. Have students look in magazines and on the Internet for patterns.
- Have students use printing implements to create patterns, e.g. sponges, blocks, vegetables, stencils. Display in the classroom.
- As a class, create and perform a pattern using sounds. Select two or three sounds. Draw a picture to represent each sound and point to each picture throughout the performance.

- Use the drawing tool on the IWB DVD to create patterns.
- Arrange a group of students in a pattern, e.g. one standing with arms up, the next one sitting. Have students create their own action patterns.

Investigation

- Encourage students to find patterns in the classroom. Keep count of all of the different suggestions.

Extension Work

- Ask students to find and draw or photograph patterns in their home. Encourage them to look at tiles and clothing.
- Ask students to bring in something from their home that has a pattern. Display the objects in the classroom.
- Have students work in pairs. One makes a pattern from Lego and the other copies and continues it.
- Use the example questions on the IWB DVD.

Language

pattern, next to, repeat, copy, number before, number after, before, after, follows, between, continue, in a line, beginning, middle, first, last, is the same as

Resources

- any classroom objects that can be used to make patterns, e.g. pattern blocks, art paper, computer drawing software, Lego
- magazines
- printing implements, e.g. sponges, blocks, vegetables, stencils
- IWB DVD K

Cross-reference

See also: pp. 30, 45, 72, 95, 99, 103

Year 1 p. 24

Evaluation

Is the student able to do the following?

- describe a repeating pattern
- continue a pattern

Answers

Students will talk about and tick patterns in the picture.

Investigation

Discussion about patterns in the classroom will occur.

2D Looking for Patterns

In a pattern, the parts repeat over and over again. Here the two shapes are repeated.

The parts could be objects, shapes, colours, sounds or actions.

CONCEPT

Talk about patterns in this picture. Tick each pattern.

Find patterns in your classroom.

INVESTIGATION

Patterns and Algebra: Sort and classify familiar objects and explain the basis for these classifications. | Copy, continue and create patterns with objects and drawings. Outcomes: MAe-1WM, MAe-3WM, MAe-8NA

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