

PlusOne

Mathematics

Teacher's Guide



ECD **B**



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PlusOne

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ECD B

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Topic 1

Number

Matching the things that are used together

Unit objectives

By the end of this lesson, learners should be able to:

- a** cut and paste a picture of the toothpaste from the sticker page.
- b** match at least one pair of objects used together.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B Workbook page 1.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Toothbrushes, toothpaste, socks, shoes, spoon, bowl/ plate, pencils and crayons.

Teacher's notes

Begin the lesson with a lively action song to energize learners and focus their attention. Encourage movements and participation to make the start fun.

- Introduce the concept of matching by asking learners to give examples of things used together in daily life (for example, cup and saucer, shoes and socks). Explain that matching means finding two items that work together for a purpose.
- Show learners objects, pictures, or cards from the book. Ask them to name or sign each object to ensure recognition. Encourage everyone to participate.
- Guide learners to match pairs of objects, such as toothbrush/toothpaste, cup/saucer, pot/ lid. Offer support to those who need help. Emphasize looking carefully at the objects and thinking about how they are used together.
- Ask learners to state or sign the use of each matched pair (for example, “A cup is used for drinking”). Reinforce understanding through simple explanations and examples.
- In their workbooks, have learners draw lines to connect related objects. Move around the class to check accuracy and provide assistance where needed.
- Learners colour the matched pictures neatly. Encourage careful coloring within the lines and praise effort to build confidence.

- For hands-on reinforcement, learners paste stickers (for example, toothpaste sticker next to the toothbrush) in the correct places. This helps consolidate the matching concept through a tactile activity.
- Conclude the lesson by reviewing the matched pairs and their uses. Ask learners to share examples of matching pairs they can find at home. Assign a simple matching activity as homework to reinforce learning.

Matching according to colour and size

Unit objectives

By the end of this lesson, learners should be able to:

- a** match at least two objects according to colour.
- b** identify at least 3 green items around the school.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 2.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

Green leaves, apples, bananas, avocado and vegetables. Blue cups, crayons, uniforms, building blocks and pencils.

Teacher's notes

Begin the lesson by engaging learners in a lively, fun song about colours. This creates excitement and activates prior knowledge. Music, movement, and visual cues help young learners focus and prepare for active participation. Explain that colours help describe objects and sizes help compare objects. Tell learners they will learn to group and match items by size and colour.

- Lead learners in a simple, repetitive colour song such as “Red, yellow, blue, and green...” Include actions like pointing to objects of the colour mentioned. Encourage learners to join in singing or signing.
- Ask learners to say or sign colours they know. Example questions: “What colour is your shirt?” “What colours do you know?” Accept verbal responses, gestures, or signs. Praise all attempts to build confidence.
- Show pictures or real objects and ask learners to name them and describe their colours. For example: “This is the sky. What colour is it?” Encourage learners to name familiar classroom items like a ball, chair, or book and state their colours.
- Provide mixed objects (bottle tops, counters, blocks, crayons, picture cards) for sorting. Ask learners to group them into sets according to colour. Support those who need help by modelling one example.

- Introduce matching by size. Show two or three objects of different sizes (big, medium, small) and demonstrate: “This cup is big, this one is small.” Explain that matching can be based on both colour and size.
- Display picture cards or textbook images and ask learners to identify objects. Questions can include: “What is this? Is it big or small? What colour is it?”
- Give worksheets or chart papers with mixed pictures. Instruct learners to draw lines connecting items that are the same colour or size (big-to-big, small-to-small). Assist learners who need support with pencil grip or visual tracking.
- Use bright, clear materials and move around the classroom to guide and observe learners. Encourage teamwork, sharing of materials, and reinforce vocabulary: big, small, red, blue, green, and others. Celebrate effort through claps, praise, and encouragement.

Matching parts and whole

Unit objectives

By the end of the lesson, learners should be able to:

- a** match a cut orange and a complete orange.
- b** match at least 2 sets of pieces of each whole product.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 3.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

Whole and pieces of oranges, watermelons, bread, cucumbers, chairs, cakes and pencils.

Teacher’s notes

Begin the lesson with an exciting song about nature to get learners active and ready to learn. Include clapping, dancing, and actions to make the song interactive. Explain that nature provides many objects, such as fruits, leaves, and vegetables, which learners see daily.

- Introduce the concept of “half.” Show real fruits (or picture cards) like oranges, apples, or bananas. Demonstrate cutting them into two equal parts and explain that each part is called a half. Emphasise that a half is one of two equal parts.
- Ask learners to identify objects that can be cut into halves. Show pictures of fruits, vegetables, or other objects. Encourage responses such as oranges, apples, bread, buns, watermelon, or tomatoes. Guide learners to understand that not all objects can be neatly cut into halves.

- Provide picture cards showing cut halves of objects. Ask learners to find the two pieces that make a whole fruit or object. Demonstrate first by matching two halves of an orange, apple, or loaf of bread.
- Display workbook or chart pictures. Ask learners to point out:
 - Half pieces.
 - Whole objects.
 - Matching pairs.
- Encourage learners to say or sign the object's name.
- Provide workbook pages with various halves of objects. Learners draw lines to match the two halves. Support those who need help with fine-motor control. Praise effort and participation.

Additional teaching tips

- Use bright, colourful visual aids to attract attention.
- Reinforce the words whole and half regularly.
- Allow learners to touch and handle real fruits if possible; this helps understanding.
- Move around the classroom to offer guidance and support.
- Encourage sharing of materials and taking turns to promote cooperation.

Matching and pairing

Unit objectives

By the end of the lesson, learners should be able to:

- match at least 2 similar shapes.
- name at least 2 shapes.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 4.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Round clock faces, square clock faces, samosa, pizza slice, window frames, doors, watermelon, starfish, star, orange, tomato and pencils.

Teacher's notes

- Begin the lesson with a lively warm-up to capture learners' attention. Remind them that shapes are everywhere — in the classroom, playground, and at home. Explain that knowing shapes helps us describe and organise things in our world.

- Lead learners in songs about shapes, such as “circle, circle,” “Square Has Four Sides,” or “I am a triangle.” Include actions like drawing shapes in the air or clapping when they hear a shape name. Allow learners to take turns leading or choosing a song.
- Recap the previous lesson by asking questions such as:
 - “What shapes did we learn yesterday?”
 - “Can you show me a circle with your hands?”
- Encourage learners to respond verbally, by pointing, or using signs. Briefly reinforce the key shapes.
- Display objects or picture cards (cup, ball, window, book, plate, block). Ask learners:
 - “What object is this?”
 - “What shape is it?”
- Encourage responses: circle, triangle, square, rectangle. Allow learners to walk around the classroom to find more shapes on their own.
- In groups, provide baskets or containers filled with mixed objects of different shapes. Ask learners to sort them into shape groups (all circles together, squares together,). Move around to guide learners who need help and encourage teamwork: “Let us work together to sort!”
- Direct learners to workbook pages with shape-matching tasks. Explain clearly: “Draw a line to match the shape to the correct object.” Support learners who struggle with fine-motor skills. Praise effort, neat lines, and correct matches.

Additional teaching tips

- Use real objects from the classroom for better understanding (round plate = circle).
- Keep activities short and fun to maintain attention.
- Celebrate correct answers with claps, thumbs-up, or signing “good job.”
- Revisit shapes throughout the week for reinforcement.

Match according to colour

Unit objectives

By the end of the lesson, learners should be able to:

- a** name at least 3 colours.
- b** match at least 3 objects according to colour.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 5.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Yellow banana, blueberry, blue cups, red plates, green chairs, green leaves, red tomatoes, red strawberries and pencils.

Teacher's notes

Begin the lesson by engaging learners with familiar objects and colours in their environment. Explain that colours help us describe, sort, and understand the world around us. Use real objects, charts, or classroom items to spark curiosity.

- Guide learners to sing a simple, rhythmic colour song, e.g., “Red, yellow, blue, and green — these are the colours that we have seen!” Include actions such as pointing to classroom objects or touching coloured cards. Encourage learners to join in singing or signing.
- Ask learners: “What colours do you know?” Allow responses verbally or through signing. List their answers on the board (for example, red, blue, yellow, green, black, white). Praise all attempts to build confidence.
- Display colour cards or real objects. Ask learners to name the colours and identify objects with those colours around the room. Encourage exploration and participation.
- Support learners in naming objects and stating or signing their colours. Provide pictures or real examples for cutting and pasting:
 - Tomato – red
 - Hat – various colours (blue, yellow, among others)
 - Avocado – green
- Ask: “What colour is this?” Guide learners as needed, then have them cut and paste the pictures into their books.
- Provide a worksheet or board task for matching pictures by colour. Learners place or paste each object under the correct colour category. Encourage careful observation, peer support, and review as a class. Praise accuracy and effort.

Additional teaching tips

- Use bright and familiar objects (crayons, books, bottle tops) to make learning relatable.
- Reinforce colours throughout the day (“Who is wearing a green shirt today?”).
- Provide extra support for learners who struggle with fine-motor tasks like cutting.
- Celebrate correct answers with songs, hand claps, or praise.

Matching according to size

Objectives

By the end of the lesson, learners should be able to:

- a** identify the big cup.
- b** colour the pictures on your right side only.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 6.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Big cups, big buckets, big dish, small cup, small bucket, small dish and crayons.

Teacher's notes

Begin by showing learners familiar objects of different sizes, such as a big ball and a small ball, or a big cup and a small cup. Ask simple prompts like “Which one is big?” and “Which one is small?” to activate prior knowledge. Explain that size helps us compare objects and sort them into meaningful groups.

- Lead learners in a lively action song that names different colours, such as “If You’re Wearing...” or a local colour song. Include movements that act out the colours named. This warms up the class and helps learners focus.
- Discuss sizes learners already know. Ask questions like:
 - “What size is this ball?”
 - “Is this cup big or small?”
- Record responses on the board (big, small, medium if appropriate). Use real objects or pictures to support understanding.
- Provide mixed objects (blocks, bottle tops, toys, pictures) for learners to sort into groups by size. Encourage peer discussion: “Why did you put this object here?”
- Have each group give feedback on how they sorted their items. Ask: “Which objects were big? Which ones were small?” Celebrate correct observations and guide groups needing support.
- Display pictures from worksheets or charts. Ask learners to point to objects and describe them using size vocabulary: “This is a big ball.” “This is a small cup.”
- Move around the classroom to support learners who struggle with:
 - Identifying differences in size.
 - Using correct vocabulary.
 - Grouping objects correctly.
 - Describing what they see.
- Offer prompts such as: “Look closely— are these the same size?”

- Ask learners to colour the objects on the right side of their worksheets. Encourage them to talk about the sizes while colouring (“I am colouring the big hat.”). Assist learners who need help staying within outlines.

Additional teaching tips

- Reinforce size concepts throughout the day using classroom items.
- Use gestures to support understanding (wide arms for big, close hands for small).
- Praise effort to build confidence.
- Allow learners with slower fine-motor skills extra time to colour.

Matching according to type

Objectives

By the end of the lesson, learners should be able to:

- a match road transport.
- b identify at least 2 sets of objects that are the same type and match them.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 7.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials.

- Toy cars, buys, motor bikes, model houses, huts, socks, shoes, bulbs, candles, crayons and pencils.

Teacher’s notes

Begin the lesson by showing learners familiar objects such as a cup, shoe, spoon, or bag. Ask: “What do we use this for?” and “Where do we use it?” Allow learners to respond freely. This helps them understand that objects can be grouped or matched based on their use.

- Lead learners in a lively action song with movements, such as clapping, jumping, or gestures. This warms up the class and prepares learners for active participation.
- Explain that objects can be sorted based on their use. Give simple examples: “A bus is used for travelling.” “A train is used for travelling too.” Display classroom objects and briefly describe their uses. Emphasise matching objects by what they are used for.
- Spread out objects or picture cards and ask learners to identify and match items based on use. Guide them with questions: “Why do these two belong together?” “How do we use this object?” Allow responses verbally or through sign language. Praise correct matches and gently guide those needing help.

- Provide a sock picture from the sticker page for learners to cut out. Reinforce safe scissor-handling rules. Walk around to assist learners who may struggle. Ask: “What is this used for?” to reinforce understanding.
- Use the workbook page to have learners point to each picture and name it. Encourage signing for learners who use sign language. Check understanding with prompts like: “What do we use this for?”
- Facilitate matching activities in the workbook. Guide learners to carefully observe pictures and draw lines connecting objects that belong together. Encourage learners to explain their matches to a friend or the whole class.

Additional teaching tips

- Use real objects whenever possible to make learning tangible and relatable.
- Encourage learners to explain their reasoning using short phrases or simple signs.
- Provide extra support to learners struggling with matching or fine-motor tasks.
- Reinforce learning by revisiting vocabulary throughout the day, including during playtime.

Counting objects from 1 to 10

Objectives

By the end of the lesson, learners should be able to:

- a** count from 1 to 10.
- b** count objects from 1 to 10.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 8.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Building blocks, toy cars and crayons.

Teacher’s notes

- Begin the lesson by showing learners familiar counting objects such as blocks, bottle tops, or toys. Ask: “How many can you count?” and “Who can count from 1 to 10?” This activates prior knowledge and prepares learners for the lesson.
- Lead learners in number rhymes or songs. Choose simple, engaging rhymes such as “1, 2, 3, 4, 5 “Once I caught a fish alive” or any local number song. Include actions like clapping, tapping, or jumping to make the song rhythmic and interactive.

- Ask learners to count from 1 to 10 and count blocks or toys. Give each learner or pair of learners some items. Instruct them to count each item one by one, observing who may need assistance.
- Demonstrate one-to-one correspondence by showing how to point to or touch one item at a time while saying the number. Guide learners who count too fast or skip items. Encourage repetition until learners are confident.
- Have learners count objects in workbook pictures, such as the number of buses depicted. Allow quiet or aloud counting. Confirm correct answers as a class and reinforce with sign language if appropriate.
- Conclude by singing the song on page 8 of the workbook together as a class. Encourage actions during the song to keep learners active and engaged.

Additional teaching tips:

- Use large, colourful blocks or toys to maintain attention.
- Move around the class to guide learners individually.
- Reinforce counting throughout the day (lining up, handing out books, among others).
- Celebrate small successes to motivate learners.

Counting objects from 1 to 10

Objectives

By the end of the lesson, learners should be able to:

- a** count to 1.
- b** join the dots on 1.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 9.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Fruits, blocks and pencils.

Teacher's notes

- Begin the lesson by gathering learners in a circle. Show them one object (e.g., one block, one banana, one pencil). Explain: "Today we are learning about the number ONE. When we say ONE, we mean only one thing." Use cheerful language and actions to motivate learners.

- Lead learners in a number rhyme to introduce the number 1. Example: “One little finger, one little finger, one little finger... tap tap tap!” Use fingers to demonstrate “one.” Let learners copy the action. Repeat 2–3 times. Ask: “How many fingers are we showing?” (Answer: One)
- Have learners count fingers up to 1. Hold up one finger and ask learners to show one finger too. Encourage learners to say out loud: “One!” Walk around to check each learner’s response and assist those who struggle.
- Give each learner one block. Ask: “How many blocks do you have?” Learners respond: “One block!” Encourage them to touch and hold the block while saying “one.”
- Provide the banana sticker for learners to cut and paste. Demonstrate safe scissor use: “Hold scissors carefully and cut slowly.” Show learners where to paste in a box labelled “1.” Assist learners needing help with fine-motor skills. Reinforce: “You are pasting one banana.”
- Learners join the dots to form the number 1. Show learners to start at the top and go straight down. Move around the class to help learners who need support. Celebrate attempts: “Good job trying to make number 1!”
- Learners colour the number 1. Provide crayons and ask: “Which number are we colouring?” (Answer: One). Remind learners to colour inside the lines. Display their work on a board or wall to reinforce learning.
- Review by asking learners to show one finger, hold up one object, and say: “This is number 1!” Celebrate progress with a short rhyme, clapping, or cheerful praise. Reinforce that the number 1 means one thing.

Counting objects from 1 to 10

Objectives

By the end of the lesson, learners should be able to:

- a** count to 2.
- b** join the dots on 2.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 10.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Model houses, blocks and pencils.

Teacher's notes

Begin the lesson with a warm, fun activity. Show learners two familiar objects (two blocks, two crayons, or two small toys). Explain: "Today we are learning about the number 2. Number 2 means two things. Let us learn number 2 together!" Allow learners to touch, hold, and observe the objects.

- Lead learners in singing a number rhyme to introduce the number 2. Example:

*One finger up, one finger up,
Put it down, put it down.
Two fingers up, two fingers up,
Turn around, turn around!*

Sing slowly and clearly, showing 1 finger first, then 2 fingers. Encourage learners to copy your actions. Ask: "How many fingers are we showing now?" (Answer: Two)

- Learners count fingers up to 2. Hold up two fingers and ask learners to imitate. Say together: "One... two." Move around the class to support learners who struggle. Have learners also count their partner's fingers.
- Learners count objects in a picture or on the board (e.g., two houses). Point to each object slowly: "One... two." Ask learners to count after you. Invite individual learners to come forward and count for the class.
- Learners trace the number 2 with fingers. Display a large number 2 on the board or chart. Demonstrate: "Start at the top, curve around, and go across." Let learners trace on the big number first, then in their books or worksheets using fingers.
- Learners join the dots to form the number 2. Guide them: "Start at the first dot and follow the line." Move around to assist learners who need support with hand control and direction.
- Learners colour the number 2. Ask: "Which number are we colouring today?" (Answer: Two). Encourage neat colouring within the lines and praise their efforts.
- Review by asking learners to show two fingers and hold up two objects. Ask: "What number did we learn today?" (Answer: Two) Sing the short finger song again to close the lesson. Reinforce: "Number 2 means two things."

Counting objects from 1 to 10

Objectives

By the end of the lesson, learners should be able to:

- a** count to 3.
- b** join the dots on 3.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 11.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Blocks and pencils.

Teacher's notes

Begin the lesson by showing learners three familiar objects (for example, three crayons, three stones, or three bottle tops). Explain: "Today we are learning about the number 3. Number 3 means three things. Let us count and learn together!" Allow learners to touch and count the objects.

- Lead learners in a number rhyme to introduce the number 3. Example:

One, two, three,

Count with me!

One, two, three,

Clap with me!

Sing slowly and clap three times with the learners. Encourage learners to hold up three fingers during the rhyme.

- Learners count fingers up to 3. Show three fingers and say: "One... two... three." Ask learners to copy you. Allow them to use one hand or a combination (two fingers + one). Move around to assist learners struggling with finger positioning.
- Learners count blocks up to 3. Give each learner or pair three blocks. Say together: "One... two... three." Let learners touch and move each block as they count. Invite volunteers to count for the class.
- Learners cut and paste the picture of the pencil from the sticker page. Demonstrate safe scissor use. Show where to paste it on the worksheet. Assist learners needing help with cutting or pasting.
- Learners join the dots to form the number 3. Demonstrate on the board: "Start at the top, make a curve... then another curve." Let learners join the dots on their worksheets. Offer hand-over-hand support if needed.
- Learners colour the number 3. Point to the big number on the worksheet and ask: "Which number are we colouring today?" (Answer: Three) Encourage neat colouring inside the lines and praise effort to build confidence.
- Review by asking learners to hold up three fingers and recall: "How many blocks did we count today?" (Answer: Three) Repeat the number rhyme to close the lesson. Reinforce: "Number 3 means three things."

Counting objects from 1 to 10

Objectives

By the end of the lesson, learners should be able to:

- a** count to 4.
- b** join the dots on 4.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 12.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Stoves, blocks and pencils.

Teacher's notes

Begin by showing learners four familiar objects, such as four cups, four blocks, or four stones. Say: "Today we are learning about the number 4. Number 4 means four things. Let us count together!" Let learners touch, move and count the objects aloud.

- Facilitator leads learners in singing a number rhyme. Example rhyme:

One, two, three, four,

Let us all count a little more!

- Sing energetically and use hand actions. Encourage learners to clap four times as they sing.
- Learners count fingers up to 4. Hold up four fingers and say: "One... two... three... four." Ask learners to copy you. Support those who struggle to show four fingers. Repeat using both hands.
- Learners count the stoves. Show the picture of stoves on the board or in the learners' books. Ask: "How many stoves can you see?" Let learners point and count aloud: "One... two... three... four." Allow individual volunteers to count for the class.
- Learners trace the number 4 using fingers. Demonstrate on the board how to trace the number 4 using a finger: "Down, across, and down." Ask learners to trace a large number 4 in the air with their fingers. Then guide them to trace the number 4 on their worksheets.
- Learners join the dots on 4. Show how to join the dots to form the number 4. Encourage learners to follow the dots from top to bottom. Move around giving support where needed.

- Learners colour the first number. Point to the big number 4 on the worksheet. Ask: “Which number are we colouring today?” (Learners answer: Four) Encourage neat colouring inside the lines. Praise all learners for their effort.

Review by asking: “Show me four fingers.” “How many stoves did we count today?” “Which number did we learn?” (Answer: 4) End with a short counting song or chant to reinforce learning.

Counting objects from 1 to 10

Objectives

By the end of the lesson, learners should be able to

- a** count to 5.
- b** join the dots on 5.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 13.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Laptops, locks and pencils.

Teacher’s notes

Begin the lesson by showing the learners five familiar objects (for example, five books, five crayons, or five bottle tops). Say: “Today, we are learning about the number 5. Number 5 means five things. Let us count together!” Let learners touch and count the objects aloud to activate prior knowledge.

- The facilitator leads learners in singing a number rhyme. Example rhyme:

“One, two, three, four, five...

Let us all count and come alive!”

The teacher should use finger movements or clapping to keep the rhythm and engagement.

- Learners count fingers up to 5. Raise your fingers one at a time while counting: “One... two... three... four... five.” Ask learners to repeat. Support those who struggle to show five fingers. Let learners practise using both hands.
- Learners count laptops. Display the picture of laptops from the learner’s workbook or flashcards. Ask: “How many laptops do you see?” Allow learners to come forward and point as they count aloud: “One... two... three... four... five.”
- Draw the fifth laptop. On the board, draw four laptops first. Ask learners: “What comes next? What must we draw to make five laptops?” Guide them in drawing the fifth laptop. Let willing learners try drawing their own fifth laptop on mini-boards or books.

- Learners trace number 5 using fingers. Demonstrate tracing number 5 in the air using your finger (curve then straight line). Ask learners to do the same: “Let us draw number 5 in the air!” Guide them to trace number 5 on their workbook pages.
- Learners join the dots on 5. Show learners how to follow the dotted outline to form the number 5. Remind them to start at the top and follow the correct direction. Walk around and assist learners who need help.
- Learners colour the first number. Point to the big number 5 on the worksheet. Ask: “Which number are we colouring today?” (Learners respond: Five!) Encourage neat colouring within the lines. Praise all learners for their effort.

Review the lesson by asking: “Show me five fingers.” “How many laptops did we count?” “Which number did we learn today?” End with a quick rhyme or chant about the number 5.

Counting objects from 1 to 10

Objectives

By the end of the lesson, learners should be able to:

- a** count to 6.
- b** join the dots on 6.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 14.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Blocks, pencils and lemons.

Teacher's notes

Begin by showing six familiar objects such as six bottle tops, six crayons, or six blocks.

Say: “Today we are learning about the number 6. Number 6 means having six things. Let us count together!” Allow learners to touch and count the objects aloud. This builds number awareness and prepares them for the activities.

- The facilitator leads learners in singing ‘One, two buckle my shoe.’ Guide learners with actions to keep them excited and engaged.
- Learners count fingers up to 6. Demonstrate by counting your own fingers aloud: “One... two... three... four... five... six.” Ask learners to copy using their hands. Support learners who struggle to show six using two hands.
- Learners count lemons up to 6. Show the picture of lemons in the workbook. Ask: “How many lemons can we see?” Let learners come forward to point and count aloud. Repeat the counting as a class for reinforcement.

- Learners cut and paste the picture of the lemon from the sticker page. Show learners how to carefully cut the lemon picture. Help learners paste the lemon in the correct place in their workbooks. Encourage neat cutting and correct placement.
- Learners join the dots on 6. Demonstrate how to follow the dotted outline of number 6. Emphasise starting at the top and moving in the correct direction. Walk around to support learners who need help.
- Learners colour the first number. Point to the large number 6 on the page. Ask: “Which number are we colouring today?” (Learners respond: Six!) Encourage them to colour neatly and stay within the lines. Praise effort and neat work.

Review by asking:

- “Show me six fingers.”
- “How many lemons did we count?”
- “What number did we learn today?”

End the lesson with a quick chant:

*“Number 6, number 6,
Let us count objects, one to six!”*

Counting objects from 1 to 10

Objectives

By the end of the lesson, learners should be able to:

- a** count to 7.
- b** join the dots on 7.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 15.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Blocks, pencils and small hoes.

Teacher’s notes

Begin by showing a set of seven familiar classroom objects, for example, seven crayons, seven sticks, or seven bottle tops. Say: “Today we are learning the number 7. When we say seven, we mean seven things. Let us count together.” Allow learners to touch the objects and count aloud. This prepares them for the guided activities.

- Facilitator leads learners in singing ‘1, 2, 3, 4, 5 once I caught a fish alive.’ Use actions to make the song lively. Encourage learners to sing loudly and clap to the rhythm. Explain that the song helps with counting.

- Learners count fingers up to 7. Demonstrate counting using your fingers:
- “One, two, three, four, five, six, seven.” Encourage learners to show seven using both hands (five on one hand and two on the other). Assist those struggling to form the number with their fingers.
- Learners count the hoes up to 7. Display the picture of hoes in the workbook. Ask learners to point and count the hoes aloud as a class. Invite individual learners to come forward and count. Reinforce: “We counted 7 hoes.”
- Learners cut and paste the picture of the hoe from the sticker page. Guide learners on safe and neat cutting. Show them where to paste the picture in the workbook. Encourage neat placement and correct direction of the picture.
- Learners join the dots on 7. Demonstrate how to follow the dots to form the number 7. Explain where to start and how to form the straight lines. Walk around the classroom helping learners who struggle.
- Learners colour the first number. Point to the large number 7 on the page. Ask: “Which number are we colouring?” (Learners respond: Seven) Encourage neat, careful colouring within the lines. Praise effort and neat work.
- Review with quick prompts:
 - “Show me seven fingers.”
 - “How many hoes did we count?”
 - “What number did we learn today?”
- Finish with a short chant: “Seven, seven, Let us all say, Count to seven every day!”

Counting objects from 1 to 10

Unit objectives

By the end of the lesson, learners should be able to:

- a** count to 8.
- b** join the dots on 8.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 16.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

Bottles, blocks and pencils.

Teacher's notes

Begin the lesson by engaging learners with a familiar and joyful activity—a counting song. Songs help young children focus, learn rhythm, and connect numbers with actions. After the song, show learners your fingers and ask them to help count with you. This prepares them for learning the number 8 in a fun and relaxed way.

- Facilitator leads learners in singing “1 finger up.” Begin by raising one finger at a time according to the song. Encourage learners to copy your actions. This prepares their fingers for counting.
- Learners count fingers up to 8. Ask learners to raise their fingers as you count together:
- 1, 2, 3, 4, 5, 6, 7, 8. Let them repeat in pairs or small groups. Move around and assist learners who may struggle.
- Learners count the feeding bottles. Show a chart, flashcard, or objects with 8 feeding bottles. Ask learners: “How many feeding bottles are there?” Let them count aloud in unison. Reinforce the answer: “There are 8 feeding bottles.”
- Learners trace the number 8 using fingers. Demonstrate how to trace number 8 by drawing a large number 8 in the air. Guide learners to follow along using their index finger. Then let them trace the number 8 on their books or worksheets.
- Learners join the dots on 8. Provide worksheets with dotted outlines of the number 8. Instruct learners to carefully join the dots from the top to the bottom. Support children who may find fine-motor control challenging.
- Learners colour the first number. On the worksheet, learners identify the number 8 among other numbers. They colour the number 8 using crayons. Encourage neat colouring within the lines. Review the number 8 by counting fingers and the feeding bottles again. Praise learners for their participation and effort. Remind them that they can find the number 8 in many places around them.

Counting objects from 1 to 10

Unit objectives

By the end of the lesson, learners should be able to:

- a** count to 9.
- b** join the dots on 9.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 17.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Okra, blocks and pencils.

Teacher's notes

Begin the lesson by capturing learners' attention with a familiar counting song. Young children learn best through rhythm and repetition, so singing helps them connect numbers to actions. After singing, guide learners to use their fingers to count, preparing them to explore the number 9.

- Facilitator leads learners in singing "1, 2, 3, 4, 5 Once I caught a fish alive." Sing together with actions (show fingers while singing). Encourage learners to join in happily. Use the song to reinforce counting rhythm.
- Learners count fingers up to 9. Ask learners to show their fingers one by one as you count aloud: 1, 2, 3, 4, 5, 6, 7, 8, 9. Let learners count again in pairs or small groups. Support those who may need help holding up the correct number of fingers.
- Learners count the okra. Display a picture or actual objects of 9 okra. Ask: "How many okra do you see?" Guide learners to count aloud together. Reinforce: "There are 9 okra."
- Learners trace number 9 using fingers. Demonstrate tracing a big number 9 in the air using your finger. Learners follow your movement in the air. Then let them trace number 9 on their books or charts using their finger.
- Learners join the dots on 9. Provide worksheets with dotted outlines of the number 9. Instruct learners to join the dots slowly from the top to the end. Move around to give guidance and praise efforts.
- Learners colour the first number. Present a worksheet with several numbers, including 9. Ask learners to identify the number 9. Learners colour the number 9 neatly using crayons. Review the lesson by counting fingers again and identifying items around the classroom that are nine in number (books, blocks). Praise learners for their participation and encourage them to keep practising the number 9 in their environment.

Counting objects from 1 to 10

Unit objectives

By the end of the lesson, learners should be able to:

- a** count to 10.
- b** join the dots on 10.

Suggested teaching and learning resources

- Plusone Mathematics ECD B workbook page 18.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Pictures of goats, blocks and pencils.

Teacher's notes

Begin the lesson with an engaging number rhyme. Songs help young learners warm up, focus, and recall counting patterns. After singing, use learners' fingers to build a concrete understanding of counting to 10, preparing them for later activities involving numbers and objects.

- 1 Facilitator leads learners to sing a number rhyme. Choose any lively number rhyme ("Ten little fingers", "1–10 number song"). Encourage learners to sing while raising fingers or clapping. Use actions to emphasise counting to ten.
- 2 Learners count fingers up to 10. Ask learners to show both hands. Count aloud together from 1 to 10. Repeat several times, letting learners lead the counting. Support those who may struggle to coordinate finger counting.
- 3 Learners count the goats. Display a picture or real models of 10 goats. Ask learners: "How many goats do we have here?" Guide them to count aloud, touching or pointing to each goat. Reinforce the connection: "We counted 10 goats."
- 4 Learners trace the number 10 using fingers. Demonstrate tracing 1 and 0 in the air using your finger. Learners imitate your actions. Then let them trace a large printed 10 on their worksheets or charts using their fingers.
- 5 Learners join the dots on 10. Provide worksheets with dotted outlines for 1 and 0. Demonstrate how to start at the first dot and follow the sequence. Allow learners to join dots carefully. Move around the classroom to provide guidance and encouragement.
- 6 Learners colour the first number. Present a worksheet with several numbers including 10. Ask learners to point to the number 10. Learners colour it neatly using crayons. Reinforce number recognition: "This is number 10. It is made up of 1 and 0." Review the number by singing the rhyme again. Ask learners to count any ten items around the classroom (crayons, blocks, bottle tops). Praise their effort and encourage ongoing practice of recognising and counting to 10.

Number recognition

Unit objectives

By the end of the lesson, learners should be able to:

- a read at least 6 numbers out loud correctly.
- b colour the numbers using different colours.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 19.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Number cards, crayons and number line.

Teacher's notes

Begin the lesson with energetic number rhymes. Singing activates prior knowledge, builds confidence, and prepares learners for number recognition tasks. Songs also help auditory learners remember number sequences and motivate participation. Introduce the topic by showing learners number cards (1–10) and explaining that they will learn to read, arrange, and colour numbers today.

- 1 Learners sing number rhymes. Begin with familiar number rhymes such as:

*"1, 2, 3, 4, 5 Once I caught a fish alive",
"Ten little numbers", or
"Count 1 to 10 song."*

Encourage learners to use finger counting or clapping to make the song lively and interactive.

- 2 Class counts from 1 to 10. Lead the class in counting aloud from 1 to 10. Use fingers, number charts, or physical objects such as blocks or bottle tops. Let learners take turns leading the counting. Repeat until learners show confidence.
- 3 Learners read numbers on number cards. Display number cards (1–10) one at a time. Ask learners to read each number aloud or sign it. Mix the cards and ask learners to identify numbers randomly. Provide support to learners who struggle with certain numbers.
- 4 Learners sort and arrange numbers from 1 to 10. Give each group a set of mixed-up number cards. Instruct learners to work together to sort the cards into the correct order from 1 to 10. Move around observing teamwork and supporting learners where necessary. Ask groups to present their arranged sequence:

"We arranged 1, 2, 3... up to 10!"

- 5 Learners colour the numbers using different colours. Provide worksheets with numbers 1–10. Instruct learners to colour each number using different colours to help with visual discrimination and number recognition. Encourage neat colouring and creativity. Walk around offering positive reinforcement.

Review numbers 1–10 by pointing to number cards and letting learners say them aloud. End with another short number rhyme. Praise learners for their participation and confidence in reading and arranging numbers.

Counting from 1 to 10

Unit objectives

By the end of the lesson, learners should be able to:

- a** colour the same numbers with the same colour.
- b** identify at least 4 numbers correctly.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 20.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Number line, number cards and crayons.

Teacher's notes

Begin the lesson with an engaging counting song to activate prior knowledge and create a lively atmosphere. Introduce the day's learning by showing number cards and explaining that learners will practise reading and identifying numbers from 1 to 10.

- 1** The facilitator leads learners in singing the number rhyme “10 Green paw paws.” Begin by singing the rhyme together. Encourage learners to use fingers or body movements to imitate the counting in the song. Ask learners to listen carefully for the numbers mentioned.
- 2** Learners count from 1 to 10. Lead the class in counting aloud from 1 to 10. Use fingers, objects (blocks, stones, or bottle tops), or a number chart. Allow individual learners to take turns leading the count.
- 3** Learners identify the numbers on the number cards. Display shuffled number cards (1–10). Ask learners to identify the numbers one by one. Let learners come to the front to pick a card, say the number, and show it to the class. Provide support for learners who are still developing confidence.
- 4** Learners read the numbers. Hold up each card and let the class read it aloud or sign it. Mix the order to test recognition rather than a memorised sequence. Invite a few learners to teach back by reading a card to the class.
- 5** Learners colour the same numbers as in the box in each row. Give learners their worksheets. Explain that each row has a number in a box, and they must colour all matching numbers in that same row. Monitor learners as they colour, assisting those who struggle with matching. Encourage neat, careful colouring to promote fine motor skills.

Review numbers 1–10 one more time using the number cards. Praise learners for identifying and reading the numbers correctly. End with the “10 Green paw paws” rhyme to reinforce the learning in a fun way.

Counting concrete objects

Unit objectives

By the end of the lesson, learners should be able to:

- a** write at least 4 correct numbers in each box.
- b** count at least 3 sets of objects.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 21.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Pictures/ real flowers, watermelons, chicks, dogs, fish, blocks and pencils.

Teacher's notes

Begin by energising the class with familiar number rhymes. This creates a fun atmosphere while reinforcing number sequences. Tell learners that today they will practise counting groups of objects and writing the correct number that represents each set.

- 1** The facilitator leads learners in singing number rhymes. Choose familiar rhymes such as “1, 2, 3, 4, 5 Once I caught a fish alive,” “Ten little fingers,” or “One, two, buckle my shoe.” Encourage actions or finger movements to reinforce counting. Allow learners to join in cheerfully to build focus and confidence.
- 2** Class counts from 1 to 10. Count together while pointing at a number line or flashing number cards. Invite individual learners to lead the counting. Reinforce correct pronunciation and pacing.
- 3** Learners count each set of objects and say how many there are. Show learners the worksheet or board illustrations with different sets (apples, balls, books). Model how to count each set slowly. “Let us count together. One... two... three... There are three apples.” Let learners count in pairs or small groups for peer support. Ask learners to say the total number aloud or sign it.
- 4** Learners write the total number of each set in each box in that row. Demonstrate where the number should be written in the box. Guide learners to write numerals correctly and neatly. Move around the room to assist learners with number formation or counting difficulties. Encourage learners to check their work by recounting the objects.

Review the sets by asking learners to share their answers. Sing a short number rhyme again to close the lesson on a joyful note. Praise learners for counting and writing numbers correctly to reinforce confidence and interest in Mathematics.

Matching numbers and objects

Unit objectives

By the end of the lesson, learners should be able to:

- a** match the correct number and set of objects.
- b** count correctly up to 10.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 22.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Pencils, eggs, fruits, stuffed toys, crayons and number line.

Teaching notes

Begin the lesson with an energising number song to activate prior knowledge and capture learners' attention. Tell learners that today they will be practising how to count different sets of objects and then match each set with the correct number. Explain that this helps them understand how numbers represent quantities.

- 1** Learners sing number songs. The facilitator leads joyful number songs such as “Ten little Indians,” “One, two, buckle my shoe,” or “1–10 counting song.” Learners use actions, finger counting, or clapping to reinforce rhythm and number sequence.
- 2** Class counts from 1 to 10. Use a number chart or flashcards. Count aloud together slowly and clearly. Invite individual learners to lead the class or use fingers for counting.
- 3** Learners count the available objects and say the totals. Provide learners with sets of objects (real or pictured). Model counting first, then let learners practise. Encourage them to count aloud or sign the totals. Ask questions like: “How many balls are there?” “Who can show me that number on their fingers?”
- 4** Learners count the things in each box. Provide worksheets or board drawings with multiple sets in different boxes. Guide learners to count carefully, touching each object once. Move around the classroom offering support to learners who need help with accurate counting.
- 5** Learners match sets and the correct numbers. Give number cards or provide printed numbers for matching. Demonstrate matching: “This set has 6 apples, so I match it with the number 6.” Allow learners to match independently or in groups. Reinforce correct matching by having learners explain: “I chose number 4 because there are four spoons.”

Review the sets together by counting one or two as a class. Praise learners for their participation and accuracy. End the lesson with a short number rhyme to reinforce the skill and maintain enthusiasm for future lessons.

Number sequencing

Unit objectives

By the end of the lesson, learners should be able to:

- a** identify at least 6 numbers on the number line.
- b** write at least 10 missing numbers correctly.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 23.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Number line, number cards, pencils and stick stuff.

Teaching notes

Begin the lesson by reminding learners that numbers help us count things in order. Explain that today they will learn how to arrange numbers from 1 to 10 on a number line and fill in missing numbers. Make the learners excited by showing a large number line or pointing to one in the classroom.

- 1** Learners sing a number rhyme. Begin with a lively counting rhyme (“1, 2, 3, 4, 5 once I caught a fish alive” or “Ten Little Indians”). Encourage the use of fingers or clapping to reinforce the number sequence.
- 2** Learners count from 1 to 10. Count together with learners aloud. Ask individual learners to lead the class in counting to build confidence. Use fingers, objects, or number flashcards for support.
- 3** Learners identify numbers from a number line. Display a large number line. Point to numbers randomly and ask learners: “What number is this?” “Who can find number 7?” Let learners come forward to touch or sign numbers on the number line.
- 4** Learners use stick stuff to stick numbers on a board to create a number line from 1 to 10. Give learners number cards from 1 to 10. Call them one by one to come and place their number in the correct order. Assist learners who struggle with sequencing. Repeat until the full number line is correctly formed.
- 5** Learners write the missing numbers in each row. Provide worksheets or draw boxes on the board showing incomplete number sequences (1, __, 3, 4, __, 6...). Guide learners to fill in the correct missing numbers. Circulate around the class giving support as needed.

Review the complete number line together. Ask learners to count once more from 1 to 10. Praise their participation and celebrate their success with a short number chant or clap pattern.

Number value

Unit objectives

By the end of the lesson, learners should be able to:

- a** colour correctly at least 3 corresponding numbers on the objects.
- b** count to 10 correctly.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 24.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Cups, balls, fruits, blocks and crayons.

Teaching notes

- Begin the lesson by creating a warm, fun, and engaging environment. Young learners learn best through play, songs, movement, and hands-on materials. Introduce the topic of counting by using familiar objects in the classroom (blocks, bottle tops, sticks, toys). Explain that today they will learn to count, sing number songs, and match numbers to groups of objects.

1 Steps:

- Ask learners to stand in a circle or sit in front of you.
- Say: “Let us count together from 1 to 10.”
- Count slowly and clearly: “1, 2, 3...” while showing fingers or number flashcards.
- Repeat twice to encourage mastery.
- Builds oral counting skills and number sequencing.

2 Steps:

- Teach learners simple number songs such as:
 - “1, 2, 3, 4, 5, Once I caught a fish alive”
 - “Ten Little Fingers”
 - “Number 1, Number 2, Where are you?”
- Encourage clapping or simple actions with each number.
- Repeat to ensure full participation.
- Reinforces counting in a fun, rhythmic way.

3 Steps:

- Show learners a group of objects (for example, blocks, stones, crayons).
- Allow them to touch and count each item aloud.

- Ask:
 - “How many objects do we have here?”
- Guide them to say the total.
- Develops one-to-one correspondence and accurate counting.

4 Explain to learners:

- “You will see groups of objects. Your job is to match the number to the group and colour them correctly. “Show an example on the board (3 apples and the number 3). Demonstrate how to colour the correct number of objects. Learners match the correct numeral (1–10) to the group of objects. They colour only the objects that match the number. Strengthens number recognition, matching, and fine motor control.

5 Steps:

- Present different rows with various quantities of objects (for example, stars, balls, sticks).
- Ask learners to count them and say or sign the correct number.
- Encourage them to help one another.
- Supports inclusive learning and reinforces counting and recognition.
- Review the numbers 1 to 10.
- Ask a few learners to count objects or identify a number.
- Praise effort and participation.

Counting

Unit objectives

By the end of the lesson, learners should be able to:

- a** circle the correct number at least 4 times.
- b** count correctly up to 10.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 25.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Flowers, eggs, buttons, balloons, spoons, fruits, pencils, and number cards.

Teaching notes

- Begin the lesson by revisiting what learners already know. Young children learn effectively when new ideas connect to previous experiences. Use familiar objects and fun number games to prepare learners for counting and matching numbers with sets.

- Tell learners that today’s lesson will help them practise counting and identify the correct number for each group of objects.

1

Steps:

- Ask learners:
- “What did we learn yesterday?”
- Let learners respond freely — counting, singing number songs, identifying numbers.
- Praise all responses and provide quick reinforcement.
- Enhances memory and connects past and present learning.

2

Choose simple, engaging games such as:

- Game option A: Number jump.
- Place number cards (1–10) on the floor.
- Call out a number and learners jump onto the correct card.
- Game option B: Pass the number.
- Learners sit in a circle.
- Pass a number ball while music plays.
- When music stops, the learner holding the ball says the number shown.
- Builds quick number recognition, coordination, and fun engagement.

3

Steps:

- Display a group of objects (4 blocks, 7 stones, 2 crayons).
- Ask learners to count aloud while touching each item.
- Ask: “How many are these?”
- Let learners say the total number.

4

Steps:

- Place different sets of objects on the table or floor.
- Give learners number cards (1–10).
- Demonstrate how to choose the correct card to match each group of objects.
- Allow small groups or individuals to practise.

5

Steps:

- Provide learners with worksheets showing sets of objects and several number options next to each set.
- Read instructions clearly:
“Count the objects. Then circle the number that matches the set.”
- Assist learners who need help counting.
- Collect worksheets for quick review.
- Review numbers 1–10 orally as a class.
- Ask learners to show a number using their fingers.
- Praise effort, participation, and correct answers.

Counting

Unit objectives

By the end of the lesson, learners should be able to:

- a** count and write the correct number in each box.
- b** colour the objects within the frame.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 26.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Fruits, cup, pencils, number line and number cards.

Teaching notes

Begin the lesson by reminding learners that numbers help us count how many things we see. Show a few number cards (1–10) and let learners shout, sign, or whisper the numbers. Introduce the day’s activities by explaining that they will play number games and practise counting objects.

- 1** The class plays number games using number cards. Distribute number cards (1–10) to learners or groups. Call out numbers or show objects; learners must hold up or display the matching number card. Play a quick game such as:
 - “Find the number”: teacher holds up a number; learners search for the matching card.
 - “Flash and say”: teacher flashes a card quickly, learners say/sign the number.
 - Encourage excitement and praise correct responses.
- 2** Learners count the objects in each row and use number cards as answers. Display or show a worksheet with rows of objects. Guide learners to count each row carefully, touching or pointing to each object for one-to-one correspondence. Learners select the correct number card and place it next to the row. Facilitate group discussions:
 - “How many apples did you count?”
 - “Show me the number 5 card.”
- 3** Learners write the number in the blank box. After using the number cards, ask learners to write the matching number in the empty box provided. Model writing the number on the board to support those who need help. Walk around the class and assist learners who may struggle with number formation.
- 4** Learners colour the objects in each row. Learners colour the objects they counted earlier. Encourage neat colouring and staying within the lines to develop fine motor skills. Allow learners to share and compare their work with peers for motivation.

Review one or two rows together by asking:

- “How many objects are here?”
- “What number did you write?”
- Congratulate learners on counting and matching numbers correctly. End with a short counting rhyme as a fun wrap-up.

Counting

Unit objectives

By the end of the lesson, learners should be able to:

- a** count to 10.
- b** draw the correct number of triangles in at least 4 boxes.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 27.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Number line, number card, triangles and pencils.

Teaching notes

Welcome learners warmly and tell them they will learn how to count and draw shapes to match numbers. Show them a triangle and ask if they know its name. Explain that today they will practise counting triangles and drawing the correct number to match each number box.

- 1** The facilitator leads learners to sing a song. Start with a lively number rhyme such as “1, 2, 3, 4, 5...” Encourage learners to clap, tap, or sign the numbers as they sing. This warms up the class and prepares them for counting activities.
- 2** Class counts from 1 to 10. Count together aloud while pointing to number cards or using finger counting. Repeat the counting at least twice to ensure accuracy. Invite learners to try counting individually, in pairs, or in small groups.
- 3** Learners count the triangles equivalent to each number written on each box. Show a worksheet or chart with number boxes and triangles drawn beneath some of them. Learners count the triangles under each number. Ask guiding questions such as:
 - “How many triangles do you see under number 4?”
 - “Do the triangles match the number?”
- 4** The facilitator explains that the number of triangles should match the given number. Demonstrate on the board:
 - Write a number (for example, 3) and draw three triangles.

- Write another number (for example, 6) and draw six triangles.
- Explain clearly: “The number tells us how many triangles to draw.”

5 Learners draw the correct number of triangles in each box. Give learners their worksheets. Ask them to look at each number and draw the matching number of triangles. Walk around the classroom, helping learners who struggle with drawing or counting. Encourage neat drawing and accurate counting. Review a few boxes together as a class. Ask learners to hold up their work and explain: “I see number 5. How many triangles should be there?” Praise effort and accuracy. End with a quick number rhyme to close the lesson on a positive note.

Ordering according to sequence

Unit objectives

By the end of the lesson, learners should be able to:

- a** colour the tallest tree blue.
- b** colour the tall tree green as shown in the picture.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 28.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Pictures of trees, work cards and crayons.

Teaching notes

Begin the lesson with a warm and friendly atmosphere. Welcome the children and encourage them to stand in a circle. Explain that today they will learn Mathematics through singing and movement. Tell them: “When we sing and move, we learn numbers faster and have fun!” Begin the lesson by greeting the learners and asking them if they have ever seen things of different heights, such as trees, buildings, or people. Show simple pictures or real objects (for example, pencils of different heights) and ask:

- “Which one is tall?”
- “Which one is taller?”
- “Which one is the tallest?”

Tell the learners that today they will learn how to compare the height of trees and sequence them correctly.

- 1** Learners sing an action song. Choose a simple number-based action song such as: “One little finger,” “If you are happy and you know it,” or a local rhythmic song that includes counting or movements. Demonstrate the actions slowly first. Encourage learners

to join in. Repeat the song 2–3 times so every child participates confidently. Emphasise the numbers or actions in the song (“One,” “two,” “three,” clap, jump, touch head).

- 2 The facilitator explains what sequencing according to height is and gives examples of tall, taller, and tallest. Show three pictures of trees or objects arranged randomly. Explain:

- Tall means the object is higher than others but not the highest.
- Taller means comparing two objects — one is taller than the other.
- Tallest means the highest among all objects.

Demonstrate with objects or pictures.

- 3 Learners identify the trees and describe them according to height. Learners observe the three trees in their workbook. Ask:

- “Which tree is the tallest?”
- “Which one is taller?”
- “Which one is tall?”

Learners respond verbally or through sign language.

- 4 Learners colour the tallest tree blue. Guide learners to look at the workbook and find the tallest tree. Learners colour it blue as instructed.

- 5 Learners colour the taller tree yellow. Learners find the tree that is taller than one but shorter than the tallest. They colour it yellow.

- 6 Learners colour the tall tree green as shown. Learners identify the tree that is tall but not taller or the tallest. They colour it green.

- 7 The facilitator monitors the learners. Move around the class observing learners’ work. Offer help where needed. Provide reminders about height comparison. Support learners struggling with colour identification. Praise effort and accuracy to motivate learners. Review the completed work with the class. Ask a few learners to show their trees and identify them by height. End the lesson with a brief recap:

- “Tall, taller, tallest — these tell us how high something is.”

Ordering according to size

Unit objectives

By the end of the lesson, learners should be able to:

- a identify the biggest duck.
- b draw a ball in each box according to its size.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 29.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Crayons, balls, pictures/models of ducks and pencils.

Teaching notes

Begin the lesson by greeting learners warmly. Remind them we use describing words (adjectives) to talk about how things look, feel or seem.

Tell them: “Today we are going to learn how to describe things by their size and put them in the correct order.” Show them real or picture objects such as balls, bottles, sticks, or toys.

1 The class gives a recap of the previous lesson. Ask: “What did we learn yesterday?” Allow learners to share in short phrases. Praise all responses and guide them to recall describing words or naming objects if relevant.

2 The facilitator explains that objects can be ordered and described according to size. Show three objects (small cup, medium cup, large cup). Say:

- “This one is big.”
- “This one is bigger.”
- “This one is the biggest.”

Let learners repeat the words after you.

Write the words big, bigger and biggest on the board for visual support.

3 Learners identify the objects available. Present objects or pictures of ducks and balls. Allow learners to touch, point to, name, or describe them. Ask guiding questions:

- “Which one looks big?”
- “Which one is the smallest?”

4 Class orders the ducks and the balls according to size. Place pictures or real objects in front of the class. Invite learners to come forward and rearrange them in the correct order:

- From big → bigger → biggest
- From small → smaller → smallest

Allow other learners to confirm or correct the order.

5 Learners draw balls in the boxes from the biggest to the smallest. Give learners a worksheet or ask them to draw in their exercise books. Demonstrate on the board how to draw a big, bigger, and biggest ball. Learners then complete the task individually. Move around to support learners who struggle.

6 Learners colour the ducks and balls using the same colour for each size. Instruct learners to choose one colour per size group. Example:

- All big objects → blue
- All bigger objects → green
- All biggest objects → yellow

Allow learners to colour neatly.

Reinforce vocabulary as they work: “What size is the one you are colouring?”

Teacher's monitoring role: Check that learners understand size differences. Ensure correct ordering from biggest to smallest. Encourage proper use of comparative language (bigger, smaller). Assist with drawing and colouring for fine motor skill support. Give praise to build confidence.

Ordering

Unit objectives

By the end of the lesson, learners should be able to:

- a** identify at least 3 shapes.
- b** complete at least 3 patterns correctly.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 30.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Bananas and oranges, square cards, triangle cards, circle cards, cut out pictures of flowers and pencils.

Teaching notes

Begin by greeting the learners warmly. Explain that today they will learn about shapes and how to describe their sizes. Show a few shape flashcards (circle, square, triangle, rectangle) and ask learners to look closely at their sizes and patterns. Create excitement by telling them they will use shapes to make beautiful patterns.

- 1** Learners sing a song about shapes. Play or lead a simple shape song such as:
 - “Circle, circle turn around, square, square touch the ground...” Incorporate actions (making a circle shape with hands). Encourage all learners to participate by singing or using hand signs.
- 2** Learners say/sign shapes they know. Show one shape card at a time. Ask learners to say or sign:
 - “Circle”
 - “Square”
 - “Triangle”
 - “Rectangle”
 - Allow learners to share in pairs what shapes they know. Praise all attempts to build confidence.
- 3** Learners use shape cards to create patterns shown in their workbooks. Display a sample pattern (circle–triangle–circle–triangle). Demonstrate how to use shape cards to match the

pattern. Learners work in groups or pairs to build the same pattern using their own cards. Provide guidance and ensure they are arranging shapes correctly.

- 4 Learners complete the patterns as shown in their workbooks. Ask learners to open their workbooks. Direct them to look at incomplete patterns (square – square – triangle –square – square –?). Learners draw or place the correct shape in the missing spaces. Move around the classroom, assisting learners who need support.
- 5 Learners sign/say big, bigger and biggest on the triangles and other shapes. Show three triangles of different sizes. Teach and model the comparative vocabulary:
 - “Big”
 - “Bigger”
 - “Biggest”

Ask learners to repeat the words orally or using signs. Let learners point to or sign which triangle is big, bigger, and biggest. Extend by allowing learners to compare other shapes (big circle vs. small circle).

Teacher’s monitoring role: Ensure all learners participate in singing or signing. Check that learners correctly identify shapes. Support learners who struggle with patterns by giving hints. Reinforce vocabulary by repeating the words big, bigger, biggest. Praise effort and creativity to build confidence.

Patterns

Unit objectives

By the end of the lesson, learners should be able to:

- a name at least 3 colours correctly.
- b complete at least one pattern correctly.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 31.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning resources

- Coloured beads (red, green, blue and yellow), strings and crayons.

Teaching notes

- Begin the lesson by showing learners a box/bowl of colourful beads. Ask them if they know the names of the colours they see. Explain that today they will learn how colours can be used to make patterns, just like in music or dancing sequences. Use real objects and visuals to capture attention and help learners understand the concept of colour patterns before working in their books.

- 1 Learners sing a song about colours. Introduce a simple colour song such as: “Red, yellow, blue and green... these are colours that we’ve seen!” Encourage learners to point to or hold up objects of the colours mentioned. Allow learners who use sign language to sign along.
- 2 Learners name colours on the beads. Hold up different coloured beads one at a time. Ask learners: “What colour is this?” Let learners respond orally, by pointing, or by signing. Place beads on a chart or table where all can see. Praise learners for correct colour identification.
- 3 The facilitator explains that coloured beads can make patterns and demonstrates making patterns. Show an example such as red – blue – red – blue. Explain what a pattern is: “A pattern repeats itself in the same way.” Make a few simple patterns with beads and string while learners watch. Show another pattern such as green – yellow – yellow – green – yellow – yellow. Ask learners to observe and describe the pattern.
- 4 Learners make patterns using beads and strings. Give each learner or pair a small set of beads and a short string. Ask them to create their own simple pattern (AB or AAB type patterns). Move around the classroom to support learners, ensuring they follow a repeating sequence. Encourage learners to share their patterns with classmates.
- 5 Learners complete the patterns in their books. Direct learners to open their workbooks. Ask them to look at the partially completed colour patterns. Explain that they must continue the pattern by colouring the next bead correctly. Help where needed, especially for learners who struggle with identifying the sequence. Review the completed work as a class.

Teacher’s monitoring role: Ensure all learners participate in songs and naming colours. Check that learners correctly identify and differentiate colours. Guide learners as they create patterns to ensure accuracy and repetition. Provide verbal praise and encouragement to keep learners motivated. Offer one-on-one support to learners who need additional help.

Construction

Unit objectives

By the end of the lesson, learners should be able to

- a identify at least 3 animals.
- b match the heads and tails of at least 3 animals.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 32.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Cut out the head and tail, picture cards of elephant, lion, cat, cow and pencils.

Teaching notes

- Begin the lesson by showing pictures or toys of familiar animals such as a cow, dog, cat, or chicken. Ask learners if they have seen these animals at home or in their community. Explain that today they will learn the names of animals, the sounds animals make, and how to match an animal's head to its tail. Use real pictures or charts to create excitement and help learners connect the lesson to their everyday world.

- 1 Class sings a song about animals. Teach or play a simple animal song such as: "Old MacDonald had a farm..." Encourage learners to sing along and imitate the animal sounds in the song. Allow learners to sign the animals if they use sign language.
- 2 Learners name animals they know. Show pictures of animals one by one. Ask: "What animal is this?" Let learners respond freely. Record answers on the board to build vocabulary (cow, goat, dog, fish, frog). Praise all attempts to encourage confidence.
- 3 Learners make animal sounds. Ask learners: "What sound does a cow make?" Let them moo, bark, meow, bleat, or cluck. Invite learners to come forward and act out an animal while the class guesses its name. Use this game-like approach to maintain excitement and participation.
- 4 The facilitator explains the concept of head and tail. Show a picture of an animal's full body. Point to the head and explain: "The head is where the eyes, mouth, and ears are." Point to the tail and explain: "The tail is at the back of the animal." Show separate cards of an animal's head and tail and demonstrate how to match them. Use multiple animals for demonstration to ensure understanding.
- 5 Learners match the head and tail of the animals on the picture cards, drawing lines using pencils. Give each learner a set of picture cards or refer them to workbook pages. Instruct them to look at the animal head on the left and find the correct tail on the right. Learners draw a line connecting the matching parts using a pencil. Walk around to support learners who may struggle to recognise similarities. Once done, review as a class by holding up correct matches.

Teacher's monitoring role: Ensure all learners participate in the singing, naming, and sound-making. Check that learners can differentiate one animal from another. Guide learners who have difficulty matching the correct head and tail. Provide positive reinforcement and gentle correction. Adapt support for learners who use sign language.

Sorting and grouping by colour and type

Unit objectives

By the end of the lesson, learners should be able to:

- a circle all green objects.
- b tick all orange objects.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 33.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Oranges, carrots, green pepper, red chillies, red strawberries and pencils.

Teaching notes

Begin by showing learners a basket or chart of common fruits and vegetables found in Zimbabwe (banana, orange, mango, tomato, carrot, covo). Ask learners what they already know about these items. Explain that today they will learn to name fruits and vegetables, talk about their colours, and sort them in different ways. Engage them by allowing them to touch, look at, or smell real items if available.

- 1 Facilitator leads learners to sing “Express anything: Names of fruits/vegetables/colours.” Guide learners in singing a simple song that mentions fruits, vegetables, and their colours. Encourage actions, clapping, or dancing to make learning lively. Use picture cards during the song to reinforce vocabulary.
- 2 The facilitator explains what fruits and vegetables are. Show a fruit (banana) and say, “This is a fruit. Fruits grow on trees or plants and are usually sweet.” Show a vegetable (carrot) and say, “This is a vegetable. Vegetables grow on plants and are usually cooked or eaten raw.” Use simple language and real examples.
- 3 Learners say/sign fruits they know and say their colours. Ask: “What fruit is this?” Learners respond with names such as: banana – yellow, apple – red, orange – orange, mango – green/yellow. Allow signing for learners who use sign language.
- 4 Learners say/sign vegetables they know and say their colours. Show vegetables one by one. Learners respond: tomato – red, carrot – orange, covo – green, onion – white. Encourage learners to use complete phrases, for example, “The carrot is orange.”
- 5 Learners sort pictures or real fruits and vegetables according to type. Provide mixed items (real or picture cards). Ask learners to make two groups: fruits and vegetables. Allow learners to work in small groups or pairs. Guide learners who confuse the categories.
- 6 Learners sort pictures or real fruits and vegetables according to colour. Give each group mixed fruits/vegetables again. Ask them to sort into colour groups such as red, green, yellow, orange. Ask simple questions like: “Which group has the most items?”
- 7 Learners name and describe the fruits on page 33. Direct attention to workbook page 33. Ask learners to identify each fruit and tell its colour or shape. Encourage descriptive vocabulary such as: round, long, small, sweet, big.
- 8 Learners put an X over all red objects. Guide learners to look at each picture carefully. They mark an X on every red item (tomato, apple). Check for accuracy.
- 9 Learners circle all green objects. Learners find items such as avocado, covo, and green pepper. They circle all green items.

- 10** Learners tick all orange objects. Learners identify objects such as carrots or oranges. They tick the correct items.

Teacher monitoring role: Move around to support learners as they sort and complete workbook tasks. Reinforce colour names clearly and slowly. Provide additional help for learners who struggle with categorising. Praise effort and encourage the use of English and/or sign language.

Construction

Unit objectives

By the end of the lesson, learners should be able to:

- a** name at least 3 things used to build a house.
- b** construct a house using building blocks.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 34.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Coloured building blocks.

Teaching notes

Begin by showing learners pictures or real samples of common building materials such as bricks, grass, poles, clay, stones, wood. Ask them if they have ever seen a house or hut being built in their community. Briefly explain that people use different materials to build different types of homes. Create excitement by telling the class: “Today we will sing, talk about building materials, and even build our own houses and huts.”

- 1** Class sings a song about construction/building. Teach learners a simple building-related song such as “Build a house, build a hut...” accompanied by actions. Encourage learners to sing, clap, and perform building motions (stacking, lifting, carrying). Use tools or prop pictures to enrich the experience.
- 2** Learners name materials used for building real houses and huts. Show learners pictures or real samples of materials:
 - Hut materials: grass, poles, clay, sticks
 - House materials: bricks, cement, metal sheets, wood.
 - Ask:
 - “What do we use to build a hut?”
 - “What do we use to build a house?”

- Learners say or sign the names of the materials. Reinforce vocabulary: brick, pole, grass, clay, metal, wood.

3 Learners say/sign what is shown on page 34. Guide learners to open to the workbook page 34. Ask guiding questions such as:

- “What do you see?”
- “Is it a house or a hut?”
- “What materials can you see?”
- Allow learners to describe the pictures using words or sign language. Encourage complete phrases: “This is a hut.” “These are bricks.”

4 Learners build their own huts and houses using building blocks. Provide building blocks, sticks, or reusable classroom materials. Group learners in pairs or small teams. Instructions to learners:

- “Use the blocks to build a hut.”
- “Now build a house.”
- Encourage creativity and teamwork. Walk around to observe and support learners. When learners finish, ask them to describe their structures:
- “Tell me about your house.”
- “What materials did you use?”
- Teacher monitoring role: Guide learners gently when they struggle with naming or signing words. Ensure all learners are participating actively, including those who prefer non-verbal communication. Praise learners for creativity and correct vocabulary use. Encourage teamwork and sharing during building activities.

Sorting by colour and size

Unit objectives

By the end of the lesson, learners should be able to:

- a** colour all big objects red.
- b** colour all small objects blue.
- c** count and write the number of each object in the box.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 35.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Soccer balls, tennis ball, cricket ball, pots, pans and pencils.

Teaching notes

Begin the lesson by engaging learners with a familiar and enjoyable activity—singing. Songs help learners relax, remember vocabulary easily, and stay focused. Introduce the topic of colours and sizes by using classroom objects, flashcards, or items learners already know. This helps link new learning to their real-life environment. Encourage learners to participate actively by responding, demonstrating, naming, colouring, and counting. Keep the lesson practical, visual, and hands-on.

- 1 Learners sing a song about colour. Teach a simple song such as:
 - “Red, blue, green and yellow,
 - These are the colours that I know...”
 - Encourage clapping, dancing, or pointing to matching colours around the classroom.Ask learners to mention colours from the song.
- 2 Learners name colours they know. Hold up coloured flashcards or real objects (red pen, blue book). Ask: “What colour is this?” Let learners respond orally or by signing (for inclusivity). Allow learners to find objects of different colours in the classroom.
- 3 Learners identify and describe the objects according to size. Show pictures or items (big ball, small ball; big cup, small cup). Ask guiding questions:
 - “Which one is big?”
 - “Which one is small?”
 - Let learners repeat: “This is big.” / “This is small.” Encourage comparisons: “The bag is big. The pencil is small.”
- 4 Learners colour all the big objects red. Direct learners to the worksheet or textbook page. Demonstrate how to identify big objects. Instruct learners to use only the red crayon for big objects. Walk around to check the correct colouring.
- 5 Learners colour all the small objects blue. Ask learners to first point out the small objects. Instruct them to use a blue crayon. Provide support for learners who struggle to distinguish the sizes.
- 6 Learners count and write the number of each object in the box. Demonstrate counting using one-to-one correspondence. Ask learners to count aloud together, then individually. Learners write the number in the box next to each type of object. Check for accuracy and assist where needed. Review the colours learned (red, blue, others from song). Review size concepts (big/small). Ask a few learners to share their completed work. Give positive reinforcement and encourage correct use of colour vocabulary.

Sorting by type

Unit objectives

By the end of the lesson, learners should be able to:

- a** name and identify at least 3 vegetables.
- b** colour all means of transport yellow.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 36.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Pictures/ models/ real cabbage, beetroot, peas, lettuce, car, aeroplane, train, bicycle, and crayons.

Teaching notes

Begin by engaging learners with an enjoyable and familiar activity—a game song. Songs motivate learners, improve concentration, and encourage participation. Introduce the lesson by explaining that they will learn about two groups of things: vegetables (food we grow and eat) and transport (things that help us move from one place to another). Use pictures, real objects, and gestures to support understanding. Encourage learners to speak, point, identify, move, and participate actively.

- 1** Learners sing the game song “Express anything.” Introduce the song energetically. Allow learners to clap, jump, or act out meanings as they sing. The song sets the mood and prepares learners for naming different things.
- 2** Learners name and identify vegetables and means of transport. Display vegetables (real items or pictures) such as: tomato, carrot, onion, cabbage, pumpkin. Display types of transport such as: bus, car, bicycle, truck, scotch cart. Ask:
 - “What is this?”
 - “Is it a vegetable or transport?”
 - Encourage learners to respond orally or using sign language where needed.
- 3** Learners sort the objects according to type (vegetables or transport). Place mixed pictures on the board or table. Ask learners to come forward and sort them into two groups: Vegetables | Transport. In pairs or groups, let learners sort a set of mixed images on worksheets or cards. Discuss answers to reinforce correct classification.
- 4** Learners colour the vegetables green. Direct learners to the textbook/worksheet page with the pictures. Ask them to first point to all the vegetables. Instruct: “Colour all the vegetables green.” Walk around to check the correct identification and colouring.

- 5** Learners colour the means of transport yellow. Ask learners to identify each transport item. Instruct: “Colour all the transport pictures yellow.” Assist learners who confuse categories. Review the two categories: vegetables and transport. Ask:
- “Name two vegetables.”
 - “Name two means of transport.”
 - Celebrate correct colouring and sorting. Encourage learners to observe vegetables at home and transport they see in their community.

Ordinal numbers

Unit objectives

By the end of the lesson, learners should be able to:

- a** count at least from 1st to 3rd.
- b** colour the apples within the frames.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 37.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Apples, ordinal number line, ordinal number cards and crayons.

Teaching notes

Begin the lesson by singing familiar number songs (“One, two, buckle my shoe”) to engage learners and reinforce counting skills. Explain that ordinal numbers tell the position of something in a line, row, or order (1st, 2nd, 3rd, 4th, 5th). Use everyday examples from the classroom or community, like:

- “Who is first in the queue for the snack?”
- “Which tree is the tallest in our school garden?”

- 1** Lead the learners in number songs to revise counting from 1 to 5. Encourage clapping, stomping, or jumping as they count.
- 2** Show a set of objects (apples, toy cars). Explain 1st, 2nd, 3rd, 4th, 5th using the objects. Ask learners to repeat after you, both orally and using signs.
- 3** Learners say/sign ordinal numbers. Point to objects in sequence and let learners say or sign the ordinal numbers. Reinforce correct pronunciation and positioning.
- 4** Draw a simple hopscotch grid with 5 boxes. Learners jump into each box while shouting/ signing the corresponding ordinal number. Encourage fun and movement to reinforce learning.

- 5 Give learners different objects (blocks, fruits, or toy animals). Ask them to place the objects in a line and shout/sign 1st to 5th as they place each object. Monitor and correct any mistakes in positioning.
- 6 Provide learners with a worksheet with 5 apples in a row. Ask learners to count the apples using ordinal numbers. Instruct them to colour each apple differently, referring to its ordinal position (“Colour the 1st apple red, the 2nd apple blue”). Recap ordinal numbers by pointing to objects in order and asking learners to shout/sign their positions. Ask questions like:
 - “Which apple is 3rd?”
 - “Who is standing 2nd in line?”

Praise learners for participation and correct placement.

Ordinal numbers

Unit objectives

By the end of the lesson, learners should be able to:

- a colour the second object red.
- b count from first to fifth correctly.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 38.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Triangles, rectangles and crayons.

Teaching notes

Begin the lesson with familiar number rhymes to engage learners and reinforce counting skills. Explain that ordinal numbers tell the position of things in a line or sequence (1st, 2nd, 3rd among others.). Use relatable examples such as:

- “Who is 1st in the line?”
- “Which fruit is 3rd on the table?”

Relate positions to shapes, fruits, or classroom objects to make the concept tangible.

- 1 Lead learners in a number rhyme, emphasizing positions: “1, 2, 3, 4, 5, once I caught a fish alive...” Encourage clapping or stomping with each number to reinforce counting and positions.
- 2 Ask learners to count objects or cards from 1st to 5th. Learners repeat after the teacher, both orally and using signs if needed.

- 3 Practising positioning in pairs: Give each pair a set of shape cards. Learners practise placing cards in order from 1st to 5th. Monitor pairs and correct mistakes in positioning.
- 4 Position games in groups: Divide learners into small groups of 5. Provide objects (shapes, toys, or cards) and ask learners to arrange them in order. Each learner can say/sign the ordinal number for the object they place.
- 5 Colouring objects by position: Provide a worksheet with 5 objects in a row. Ask learners to colour:
 - 2nd object red
 - 3rd object blue
 - 5th object green
 - Encourage learners to use ordinal numbers to identify each object.
- 6 Counting shapes using ordinal numbers: Learners count the rectangles or other shapes using 1st to 5th. Ask learners to point or trace each shape as they say its position. Recap ordinal numbers by pointing to objects and asking learners to shout/sign positions.
 - Reinforce with questions:
 - “Which object is 2nd?”
 - “What is the 5th shape?”
 - Praise learners for correct placement and participation.

Ordinal numbers

Unit objectives

By the end of the lesson, learners should be able to:

- a position correctly objects from 1st to 5th.
- b colour the 4th banana.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 39.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Balloons, bananas, fruits, blocks, pictures of a hen and crayons.

Teaching notes

Begin with a recap of the previous lesson on ordinal numbers and positioning. Explain that ordinal numbers show the order or position of objects in a line, row, or sequence. Give simple examples: “The first hen is here, the third balloon is there. Use classroom objects or pictures to make it relatable.

- 1 Recap of previous lesson. Ask learners to name ordinal numbers they know. Quickly review 1st to 4th using classroom objects or flashcards.
- 2 positioning objects. Provide different objects (balls, blocks, fruits).
 - Learners arrange them in a line and say each object's position.
 - Encourage oral and signed responses for inclusivity.
- 3 Games with positions. Play simple classroom games (“stand in line,” “hop to the 2nd mat”). Learners announce their position as they play.
- 4 Colouring objects by position: Provide worksheets or picture cards:
 - Count the balloons and colour the 3rd one.
 - Colour the 4th banana.
 - Colour the 1st hen.
 - Encourage learners to point to each object and say its position before colouring.
- 5 Class discussion: Ask learners:
 - “Which object is 1st?”
 - “Which object is 4th?”

Encourage learners to answer verbally and by pointing. Recap ordinal numbers by pointing to objects in the classroom and asking learners to identify their positions. Praise learners for correct positioning, counting, and colouring. Reinforce that ordinal numbers help us know the order of objects in everyday life.

Ordinal numbers

Unit objectives

By the end of the lesson, learners should be able to:

- a say/sign who finished first in a race.
- b colour the second person blue.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 40.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Outdoor environment, pictures and crayons.

Teaching notes

- Begin the lesson with a lively action song that involves movement (for examples, “If you are happy and you know it,” “Line up song”). Explain that today learners will explore positions — who comes first, second, or third — just like in a race. Use simple examples:

- “If we line up, the person at the front is first.”
- “The next person is second.”
- “The next is third.”

- 1** Singing (warm-up): The facilitator leads learners in a joyful song. This energises learners and prepares them for the interactive lesson ahead.
- 2** Class race activity: Select a small group of learners to run from one point to another. After the race, guide learners to say/sign who came 1st, 2nd, and 3rd. Rotate participants so several children experience the positions. Encourage the class to shout the positions together.
- 3** Identifying positions in pictures: Display the picture in the workbook or on a chart. Ask learners:
 - “Who is first?”
 - “Who is second?”
 - “Who is third?”
 - Learners respond orally or with sign language. Reinforce learning using pointing gestures.
- 4** Colouring by ordinal position: Learners follow instructions in their workbooks:
 - Colour the first one red.
 - Colour the second one blue.
 - Colour the third one green.
 - Guide learners to point and name each position before colouring.
- 5** Class review / reflection: Ask simple questions:
 - “What does first mean?”
 - “Who do we colour blue?”
 - “Which position comes after first?”

Praise correct answers to build confidence. Summarise the three ordinal numbers learned today: 1st, 2nd, 3rd. Let learners repeat them aloud or sign them. Encourage learners to notice positions during daily routines (lining up, arranging objects, games). Celebrate participation with claps or a short chant.

Topic 2

Operations

Addition

Unit objectives

By the end of the lesson, learners should be able to:

- a** sing at least two addition songs.
- b** say how many girls there are altogether.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 41.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Blocks, picture of 5 girls, learners and crayons.

Teaching notes

Begin the lesson with lively addition rhymes such as “1 and 1, Let us have fun,” or “Adding up is easy.” Encourage learners to clap, tap, or use body movements while singing. Explain that today they will learn how to talk about and show addition using people and pictures.

- 1** Singing addition rhymes: Facilitator leads learners in singing fun addition rhymes. Class continues with other rhymes they enjoy. This prepares the children for the concept of “putting together.”
- 2** Explaining addition: The facilitator tells learners: “Addition means putting things together and counting how many there are altogether.” Show two groups of objects (blocks) to demonstrate. Use clear addition language:
 - “Two and one makes three.”
 - “When we put them together, we count the total.”
- 3** Using learners to demonstrate addition up to 5: Call two small groups of learners to the front. Example: “Here are 2 learners. Here are 3 learners walking in.”
 - How many are there together?”

- Learners count aloud or sign the total (not more than 5).
- Repeat using different learners.

4 Counting girls in the picture: Show the picture in the workbook. Ask:

- “How many girls are walking?”
- “How many girls are standing?”
- Let learners count out loud or sign. Ask: “How many girls are there altogether?”

5 Learners state the total: Learners say/sign the final answer, for example: “Two walking girls and three standing girls make five girls altogether.” Encourage them to use the words and, together, altogether, makes.

6 Colouring activity: Learners colour the standing girls one colour and the walking girls a different colour. This reinforces the idea of two groups being combined. Move around the class guiding those who need help. Recap the key idea: “Addition means putting things together to find out how many there are altogether.” Let learners repeat a simple sentence: “Two and one make three.” End with a short addition rhyme or clapping pattern.

Addition

Unit objectives

By the end of the lesson, learners should be able to:

- a** add the dots on the butterflies at least 2 times.
- b** count from 1 to 10 correctly.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 42.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Addition work cards, counters, blocks and pencils.

Teaching notes

The introduction should create an engaging and familiar environment for learners. Begin with number and addition rhymes to help learners recall previous concepts in a fun and rhythmic way. Encourage full participation by inviting learners to sing, clap, and act out the rhymes. This prepares them for the addition activities by reinforcing counting skills and vocabulary associated with numbers. After singing, allow learners to give a recap of the previous lesson. Guide them by asking simple questions like:

- “What did we do yesterday?”

- “Who remembers a rhyme we sang?”
- “What did we count?”

This ensures continuity and checks understanding.

- 1 Learners sing number and addition rhymes: Begin with familiar rhymes such as “1, 2, 3, 4, 5 Once I caught a fish alive” or “Add two more”. Let learners clap hands or tap fingers as they sing to reinforce rhythm and counting. Encourage confident learners to lead a verse.
- 2 Learners give a recap of the previous lesson: Ask learners to share what they remember from the last class. Prompt them with questions about counting, numbers, or rhymes learned. Praise all responses to boost confidence.
- 3 Class counts from 1 to 10: Lead the whole class in counting aloud from 1 to 10. Count forwards and backwards. Use fingers or number flashcards for visual support. Invite a few learners to lead the counting.
- 4 The facilitator tells addition stories: Tell simple, relatable addition stories, for example: “Two butterflies were flying. Three more joined them. How many butterflies are there altogether?” Allow learners to act out the stories with finger counting. Ask guiding questions such as:
 - “How many were there at first?”
 - “How many came?”
 - “How many altogether?”
 - This helps learners understand addition as putting groups together.
- 5 The facilitator demonstrates adding the dots on the butterfly wings: Show a large butterfly picture with dots on each wing. Point to the dots on the left wing and count them aloud. Point to the dots on the right wing and count them as well. Ask: “How many dots are there in total?” Write the addition sentence on the board ($3 + 2 = 5$). Repeat with another example. Engage learners by letting them touch and count the dots.
- 6 Learners add the dots on each butterfly and write answers in the blank box: Distribute worksheets with butterflies that have dots on each wing. Instruct learners to:
 - Count dots on the left wing.
 - Count dots on the right wing.
 - Add them together.
 - Write the answer in the blank box.

Move around the room offering support. Ask guiding questions: “What do you get when you put them together?” End the activity by reviewing answers as a class, praising effort, and re-explaining any challenging parts.

Addition

Unit objectives

By the end of the lesson, learners should be able to:

- a** at least do addition up to 7.
- b** count the animals in at least 2 sets and write the numbers in the box.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 43.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Work cards with animals, counter and pencils.

Teaching notes

Begin the lesson by engaging learners with familiar number rhymes. Singing warms up the class, activates prior knowledge, and creates a lively learning atmosphere. Encourage all learners to participate through clapping, counting with fingers, or simple actions. After the singing, guide learners in recalling what addition means. Give them opportunities to speak, share ideas, and give examples from their daily experiences (“I have 2 apples and my friend gives me 1 more — how many do I have?”). This recall helps connect the new activity with previous learning.

- 1** Learners sing number rhymes: Begin with energetic rhymes such as “One, two, buckle my shoe”, “Five little ducks”, or any familiar class favourite. Encourage learners to sing, clap, and act out the rhyme. Use fingers or body movements to reinforce counting.
- 2** Learners say what addition is and give examples: Ask: “Who can tell us what addition is?” Allow several learners to explain in their own words. Guide them to the definition: Addition is putting groups together to find out how many in total. Ask learners to give simple spoken examples, such as:
 - “2 birds and 3 birds make 5 birds.”
 - “1 ball and 1 ball make 2 balls.”

Praise all responses.

- 3** Learners in groups work on their addition work cards: Divide learners into small groups. Give each group a set of addition work cards with animal pictures. Explain the task:
 - Look at the two sets of animals.
 - Count each set.
 - Add them together (put the numbers together).
 - Move around the groups, supporting those who need help. Encourage teamwork and discussion within each group.

- 4 Learners count how many of each animal are in each set and write the numbers in the box: Provide individual or group worksheets showing two sets of animals (e.g., cats, cows, birds). Learners count Set A, write the number in the first box. Learners count Set B, write the number in the second box. Learners add the two numbers and write the total. Check for correct counting and writing formation.
- 5 Learners sing addition rhymes: Conclude the lesson by singing addition-themed rhymes such as:
 - “Add two more”
 - “One more, one more”
 - Allow learners to suggest rhymes they know. Use this time to reinforce number vocabulary and the concept of putting together.

Addition

Unit objectives

By the end of the lesson, learners should be able to:

- a do simple addition up to 8.
- b solve at least two addition stories/ problems.

Suggested teaching and learning resources

- Plusone Mathematics ECD B workbook page 44.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Plates, spoons, pictures of knives, addition work cards, blocks, counters and pencils.

Teaching notes

Begin the lesson by creating an exciting and engaging learning atmosphere. Lead learners in singing number songs to activate their number knowledge and enhance listening and participation. Choose simple, familiar songs such as “One, two, three, four, five” or “five little ducks.” After singing, guide learners to recap the previous lesson. Encourage them to share what they learned about counting, addition, or any story problems they solved. This helps learners connect today’s lesson with what they already know.

- 1 The facilitator leads learners in singing number songs: Sing lively number songs that involve counting forwards or backwards. Encourage clapping, finger counting, or simple movements. Ensure all learners participate.
- 2 Learners give a recap of the previous lesson: Ask learners:
 - “What did we learn yesterday?”
 - “Who can tell us what addition means?”

Allow several learners to share their answers orally or through signing. Reinforce the correct understanding of addition as putting groups together.

- 3 The facilitator tells addition stories from the pictures available: Display picture cards or open the learner's book to the picture page. Tell simple addition stories based on the images, for example: "2 boys are playing. Three more boys join them. How many boys are playing now?" Ask questions during the story to keep learners engaged. Demonstrate counting the items shown in the pictures.
- 4 Learners solve the addition story problems on the work cards: Distribute work cards with simple picture-based addition stories. Guide learners to:
 - Look at each picture.
 - Identify the two sets being added.
 - Count each set.
 - Add to find the total.

Move around the classroom providing support where needed.

- 5 Learners count objects in each set and write the number in each box: Provide worksheets with sets of objects. Instruct learners to count Set A, then Set B, and write the numbers in the given boxes. Learners then write the total in the final box. Check for correct counting and number formation.
- 6 Learners colour the spoons in the last set: Direct learners to the final set on their worksheet. Ask them to colour the spoons neatly using any appropriate colour (or specify one if needed). This reinforces fine motor control and attention to detail.

Subtraction

Unit objectives

By the end of the lesson, learners should be able to:

- a sing at least two subtraction songs/ rhymes.
- b solve at least one subtraction problem.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 45.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Blocks, fruits, work cards on subtraction, charts on subtraction and eggs.

Teaching notes

Begin the lesson with an engaging activity by leading the learners to sing the rhyme “10 little monkeys jumping on a bed.” This song introduces the idea of numbers decreasing as one monkey “falls off,” naturally preparing learners for the concept of subtraction. After the song, have a brief discussion: Ask learners what happens to the number of monkeys after each one falls. Allow them to respond by saying or signing. This introduces subtraction in a fun and meaningful context.

- 1 The facilitator leads learners in singing “10 little monkeys jumping on a bed.” Sing the rhyme with actions. Emphasise how the number of monkeys becomes fewer each time one falls off. Ask: “How many monkeys are left now?” to build awareness of taking away.
- 2 The facilitator explains that subtraction is simply taking away: Clearly explain:
 - “Subtraction means taking something away or removing it from a group.” Give simple examples using objects: “I have 5 blocks. If I take away 2, how many are left?” Demonstrate physically removing items.
- 3 Learners answer oral subtraction questions: Ask short, clear oral questions such as:
 - “If you have 3 sweets and you eat 2, how many are left?”
 - “If there are 4 apples and I take away 1, how many remain?”
 - Allow learners to answer by:
 - saying,
 - signing,
 - showing using their fingers.
 - Praise all correct attempts to build confidence.
- 4 Learners practise subtraction using real objects: Provide objects that can be cut, broken, or separated to show taking away, for example:
 - playdough shapes
 - paper circles
 - sticks
 - biscuits or fruit pieces
 - Let learners count a group of items, remove a number, then count what’s left. Move around the room guiding learners who need help.
- 5 Learners count the total eggs in the pictures: Show pictures of whole and broken eggs. Ask:
 - “How many eggs do we have altogether?”
 - “How many are whole?”
 - “How many are broken?”
 - Guide learners to count correctly and confidently.
- 6 Learners subtract the broken eggs from the whole ones and say how many eggs are left: Guide learners to solve simple subtraction problems from the pictures. Example: “There are 5 whole eggs. Two break. How many are left?” Allow learners to answer orally, using signs, or by pointing.

- 7** Learners sing subtraction songs: End the lesson with fun subtraction songs such as:
- “Five little ducks went swimming one day”
 - “Five green bottles hanging on the wall”
 - These songs strengthen the concept of numbers decreasing or being taken away.

Subtraction

Unit objectives

By the end of the lesson, learners should be able to:

- a** say and write how many cows are white.
- b** count backwards from 10 to 0.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 46.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Work cards on subtraction, pictures of animals and pencils.

Teaching notes

- Begin the lesson by engaging learners with familiar subtraction and counting-down songs. Examples include:
 - “Five little ducks”
 - “Five green bottles”
 - “Ten in the bed”
- These songs help learners understand that subtraction involves numbers going down as items are taken away. After singing, ask learners: “What happens when one goes away?” to introduce the concept of subtraction.

- 1** Learners sing songs about subtraction/counting down: Begin with lively songs that show numbers reducing. Encourage actions or clapping to keep learners engaged.
- 2** The facilitator explains that subtraction can be taking away the odd one out: Explain clearly: “Subtraction sometimes means taking away the one that is different from the rest.”

Show simple examples:

- Three apples and one banana → the banana is the odd one out.
- Four circles and one triangle → remove the triangle.
- Demonstrate by physically removing the different object.

- 3 Learners identify the objects in the pictures: Show the picture sets in the workbook. Ask learners to name or sign the objects. Guide them to look for the same objects and the different ones.
- 4 Learners cut and paste the picture of the claypot from the sticker page: Provide scissors and glue safely. Learners locate the claypot sticker and paste it in the correct space. Remind them to paste neatly and follow instructions in the workbook.
- 5 Learners count each set of objects: Learners count all items in each set aloud or by signing. The teacher may model counting using fingers or by pointing to each object.
- 6 Learners say/sign how many are the same as the first one: Guide learners to compare objects. Ask: “How many look the same as the first object?” Learners respond verbally or through signing.
- 7 Learners say/sign how many are different from the first one and write the answer: Learners identify the object that is not the same. They say or sign how many are different (most often one). Learners write the correct number in the box provided.

Subtraction

Unit objectives

By the end of the lesson, learners should be able to:

- a count and write how many cups are broken in at least 2 rows.
- b count correctly backwards from 10.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 47.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Ceramic cups (whole and broken), coloured blocks and pencils.

Teaching notes

- Begin the lesson by leading the class in different lively songs, especially those related to counting or subtraction such as:
 - “Five little monkeys”
 - “Five green bottles”
 - “Ten in the bed”

These songs help learners understand that subtraction happens when things are removed, lost, broken, or go away.

- After singing, ask simple questions such as:
 - “If one bottle breaks, how many are left?”
 - “If one cup falls, what happens?”

This creates a smooth transition into the day’s learning

- 1 The facilitator leads learners to sing different songs: Begin with counting or subtraction songs. Encourage actions to keep energy high. Ask learners what happens when one is taken away during the song.
- 2 The facilitator explains that broken objects are taken away (subtracted): Use objects or pictures to demonstrate. Explain clearly:
 - “Broken cups cannot be used, so we remove them. That is subtraction.”
 - Show a set of objects and remove the broken one(s).
- 3 Learners count the total number of cups in each row: Learners point to each cup in the workbook and count aloud or sign. The teacher may count with them to model correct counting.
- 4 Learners say/sign how many unbroken cups are in each set: Learners identify the unbroken cups. They say or sign the number of unbroken cups. The teacher checks and supports struggling learners.
- 5 Learners say/sign how many broken cups are in each set: Learners identify broken cups by looking at the pictures (cracks, damage). They state or sign the number.
- 6 Learners cover the broken cups and say/sign how many are left, then write answers: Learners physically cover broken cups in the workbook using their fingers. Ask:
 - “How many cups are left that we can still use?”
 - Learners say or sign the number remaining. Learners write the correct number in the box.

Subtraction

Unit objectives

By the end of the lesson, learners should be able to:

- a subtract/ take away the crossed-out objects from the total.
- b count backwards from 10 to 0.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 48.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Number line, work cards with pears, balloons, fish, counters, blocks and pencils.

Teaching notes

Begin the lesson with familiar and engaging number and subtraction rhymes such as:

- “Five green bottles”
- “Ten little monkeys”
- “There were ten in the bed”
- “Five little ducks”
- Encourage learners to use actions as they sing. After singing, ask simple questions such as:
- “When one duck swims away, what happens?” This introduces subtraction in a fun, concrete way.

- 1 Facilitator leads learners in singing number/subtraction rhymes: Select lively rhymes related to taking away. Encourage clapping, gestures, or counting with fingers. Ask learners what happened each time something was subtracted in the song.
- 2 Facilitator explains the meaning of crossing out: Show an example on the board or chart. Demonstrate crossing out one item and explain: “This means it is no longer part of the group. We subtract it.”
- 3 Learners identify subtracted items and count them: Learners look at pictures in their books and point out crossed-out items. They count how many have been crossed out. The facilitator asks guiding questions:
 - “How many are crossed out?”
 - “How many are not crossed out?”
- 4 Learners do subtraction problems in groups: Give each group picture sets or work cards. Learners cross out items according to instructions. They discuss how many are taken away and how many are left. The teacher facilitates and encourages peer support.
- 5 Facilitator helps learners do subtraction: Demonstrate slowly using one of the sets. Emphasise counting both the crossed-out items and the ones left. Model the language:
 - “There were 5. I crossed out 2. How many are left?”
- 6 Learners say/sign how many are left and write the answer: Learners complete the subtraction tasks in their books. They say or sign how many items remain. They write the correct number in the circle provided.

Sharing

Unit objectives

By the end of the lesson, learners should be able to:

- a cut and paste the picture of a packet of chocolates from the sticker page.
- b correctly say how many chocolates each set will get.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 49.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Coloured building blocks, work cards and pencils.

Teaching notes

- Start the lesson by engaging learners with songs about sharing, for example: “Share with a friend” “This is the way we share today.”
- Ask learners:
 - “Have you ever shared your sweets with your friends?”
 - “What happens when we share?”
- Explain:
 - “Sharing is giving part of what you have to someone else so that everyone gets a turn or a portion.”

- 1 Facilitator leads learners in singing songs about sharing: Select lively songs that incorporate actions, such as giving and receiving. Encourage learners to act out sharing while singing.
- 2 Facilitator explains the concept of sharing: Demonstrate with a small set of objects (chocolates or blocks). Show step-by-step sharing:
 - Give the left one object.
 - Give the right one object.
 - Count together how many each friend has received.
 - Ask learners: “Did everyone get the same amount?”
- 3 Learners practise sharing using blocks: Provide each learner or pair with 4 – 6 blocks. Learners practise sharing equally between two friends or groups. Encourage counting as they give each block: “One for Left, one for Right, now we count how many each has.”
- 4 Learners cut and paste the picture of a packet of chocolates: Learners use the sticker page to cut out chocolates. They practise arranging the chocolates to show sharing.
- 5 Learners count how many chocolates there are altogether: Learners count all the chocolates before sharing. Emphasise the total number of items before distributing.
- 6 Learners give each set a packet of chocolates and say/write how many each got: Learners distribute the chocolates to the “friends” (left and right). They verbally say how many each friend received. Learners write the number in the box or next to each friend. Teacher monitors and provides support as needed.

Sharing

Unit objectives

By the end of the lesson, learners should be able to:

- a** equally share the 4 bones.
- b** say/sign how many bones each dog gets.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 50.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Pictures/ chart of dogs and bones and counters.

Teaching notes

Begin by singing a song about dogs or animals to engage learners. Example: “Bingo” or any simple animal song. Ask learners to recall what they learned in the previous lesson about sharing. Explain:

“Today we will practise sharing bones between two dogs. Sharing means giving an equal part to everyone.”

- 1** Sing a song about dogs/animals: Encourage learners to sing and perform actions related to dogs. Ask questions: “How many dogs are in the song?”
- 2** Recap the previous lesson: Ask learners: “What did we learn about sharing last time?” Reinforce the idea that sharing is giving an equal portion to everyone.
- 3** Explain sharing: Demonstrate with 4 bones and 2 dogs. Show that sharing means giving the same number of bones to each dog.
- 4** Learners practise sharing using bones: Provide each pair of learners with cut-out bones or counters. Learners practise giving bones equally to two dog figures (or drawings).
- 5** Count total bones and dogs: Learners count: “How many bones do we have altogether?” Learners count: “How many dogs are there to share with?”
- 6** Explain sharing to Left or Right: Demonstrate the step-by-step process:
 - Give the first bone to the Left dog.
 - Give the next bone to the Right dog.
 - Repeat until all bones are shared.Discuss what happens if there are leftover bones.
- 7** Share the bones equally and determine leftovers: Learners practise sharing in pairs or small groups. Encourage them to say aloud:
 - “Left dog gets 2 bones. Right dog gets 2 bones. None are left.”

- 8** Write how many bones each dog gets: Learners record the number of bones each dog received in their workbook or on paper. The teacher monitors and provides support where needed.

Sharing

Unit objectives

By the end of the lesson, learners should be able to:

- a** cut and paste the picture of the boy and girl from the sticker page.
- b** draw an arrow from the hat to the child and say how many hats each child gets.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 51.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- School hats, pencils and learners.

Teaching notes

Begin the lesson by singing songs about sharing to engage learners and set a playful, interactive tone. Ask learners: “What does sharing mean?” Explain clearly:

“Sharing is giving others what you have. For example, if you have two hats, you can give one to your friend on the Left and one to your friend on the Right.”

- 1** Sing songs about sharing: Lead the learners in singing songs about sharing, for example, “Sharing is caring” or similar action songs. Encourage learners to perform actions as they sing, reinforcing the concept of sharing.
- 2** Explain the concept of sharing: Use two hats to demonstrate giving one to a child on the Left and one to a child on the Right. Emphasise the order of sharing and counting how many each child receives.
- 3** Practise sharing using hats: Learners practise with real or cut-out hats, giving one to the Left child and one to the Right child. Encourage them to say aloud: “Left child gets 1 hat. Right child gets 1 hat.”
- 4** Cut and paste activity: Learners cut pictures of a boy and a girl from the sticker page. Paste them onto their workbook or worksheet to represent the children.
- 5** Count total hats: Learners count all the hats available before sharing. Teacher monitors to ensure accurate counting.
- 6** Draw arrows from hats to children: Learners draw arrows from each hat to the child receiving it. Reinforce the idea of one-to-one correspondence while sharing.

- 7 Record how many hats each child received: Learners say how many hats each child got and write the numbers in the workbook. The facilitator circulates and assists learners where needed.

Topic 3

Measures

Money

Unit objectives

By the end of the lesson, learners should be able to:

- a** identify coin money correctly.
- b** say at least 2 denominations of paper money.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 52.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Paper money, coins and pencils.

Teaching notes

Begin the lesson by singing buying or money rhymes to engage learners and make the topic fun. Ask learners questions like: “Have you ever seen money? What do we use money for?”

Explain that: “Money helps us buy things we need or want. There are two types: coins (small round money) and paper money (notes).”

- 1** Sing buying/money rhymes: Lead learners in rhymes about money and buying things, “To market, to market” or simple counting songs involving coins. Encourage learners to perform actions, such as pretending to buy items with coins.
- 2** Explain types of money: Show examples of coins (1c, 5c, 10c) and paper money (1\$, 5\$). Explain the difference between coins (small, round, metal) and paper money (flat, paper, bigger).
- 3** Identify money: Pass coins and notes around the class. Ask learners to name the coins and notes they can see. Discuss colour, size, and value.
- 4** Sort and match coins and paper money: Learners work in small groups or pairs. Sort coins into one pile and notes into another. Match coins of the same value together. Teacher monitors, asks learners questions like: “Which is bigger? Coin or note? Can you find all the 5c coins?”

Money

Unit objectives

By the end of the lesson, learners should be able to:

- a** add at least 2 sets of coins.
- b** write the value of the coins.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 53.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Coins. (1 c. 2, and 5c). counters and pencils.

Teaching notes

Begin the lesson by leading learners in familiar money songs (“Money, money, money!” or “I have a coin!”). After singing, encourage learners to recall what they learned in the previous lesson, such as identifying coins or naming different denominations. Introduce today’s lesson by explaining that money has value, and we can count it and add amounts together.

- 1** Learners sing money songs. Start with lively money songs to capture attention and build interest. Encourage learners to clap, mimic coin counting, or sign along if needed.
- 2** Learners give a recap of the previous lesson. Ask: “What coins did we learn about yesterday?” Learners respond by naming or signing coins. Show a few coin flashcards to reinforce memory.
- 3** Facilitator explains that money can be counted and added. Show coins one by one and say:
 - “This coin has a value... we can count coins.”
 - “When we put coins together, we add the values.”
 - Give a simple example using two coins:
 - “ $5c + 5c = 10c$.”
- 4** Class counts and adds coin values. Place coins on the board or mat. Ask the class to count together:
 - “How much is this coin worth?”
 - “What is the total when we add them?”
 - Allow small groups to practise with their own sets of coins. Encourage them to say or sign the values aloud.
- 5** The facilitator helps learners write the values of the coins in the box. Learners complete their workbook activity by writing the correct value of each coin shown in the boxes. Walk around giving guidance to learners who struggle with number formation or value recognition. Reinforce counting by asking: “What number should we write here?”

- Review the coin values together. Ask learners to raise a coin and say its value. Praise their participation and correct answers. Remind learners that money has value and we can count and add it.

Buying

Unit objectives

By the end of the lesson, learners should be able to:

- a** identify at least 3 money values.
- b** read out the price tag of at least 2 items.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 54.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Fruits, shop area, dolls, books, coins, paper money and pencils.

Teaching notes

Begin the lesson by singing the song “To market to market to buy a fat pig” with actions to engage learners. Ask learners questions like: “Have you ever bought something from the market? What did you use to pay?” Explain:

“We use money to buy things we want or need. Today, we will practice buying and selling using play money.”

- 1** Sing the song “To market to market.” Lead learners in singing with actions. Ask learners to clap or move as they sing to keep engagement high.
- 2** Explain buying with money: Show learners items and explain the concept of price tags. Demonstrate using coins and paper money to pay for an item.
- 3** Role-play buying and selling: Divide learners into buyers and sellers. Give learners play money and items with price tags. Learners take turns acting as sellers and buyers. Encourage polite interactions: saying prices, giving change,.
- 4** Read price tags aloud: Learners read the price on each item. Facilitator models reading prices correctly before learners practise.
- 5** Count money and decide affordability: Learners count the coins and paper money they have. Decide whether they can buy the item:
 - Mark “Yes” if they have enough money.
 - Mark No if they do not have enough.
 - Discuss answers as a class, ensuring learners understand the reasoning.

Selling

Unit objectives

By the end of the lesson, learners should be able to:

- a** identify the coin values on the coins.
- b** write the price tag of at least 3 items correctly.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 55.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Food items, pencils, books and coin money.

Teaching notes

Begin by singing songs about buying and selling (“To market, to market”). Ask learners to recall what they learned in the previous lesson about money and items. Explain that buying is giving money to get an item, and selling is receiving money for an item.

- 1** Sing songs about buying and selling: Lead learners in singing songs like “To market, to market to buy a fat pig”. Include actions for buying, selling, and exchanging money.
- 2** Feedback on the previous lesson: Ask learners to recall: “What did we learn about coins and buying yesterday?” Encourage learners to share examples of items they could buy.
- 3** Role-play buying and selling: Divide the class into buyers and sellers. Provide play money and classroom items or pictures of items. Learners take turns buying and selling, counting money to pay for the items.
- 4** Adding money and writing price tags: Learners work individually or in pairs. Each learner counts the coins for each row of items. Learners write the total amount on the price tag beside each item. The teacher monitors and supports learners to ensure correct addition and understanding.

Time

Unit objectives

By the end of the lesson, learners should be able to:

- a** say/sign what time it is.
- b** tell a story from the pictures.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 56.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Picture cards

Teaching notes

Begin by singing simple songs about time, such as “This is the way we brush our teeth in the morning.” Ask learners questions like: “What do we do in the morning? What about in the afternoon?” Explain that time tells us when things happen, and there are different times of the day: morning, afternoon, and evening.

- 1 Sing songs about time: Lead learners in singing songs related to morning, afternoon, and evening. Include actions that match the activities in the songs, such as brushing teeth, eating lunch, or going to bed.
- 2 Explain different times of the day: Discuss morning, afternoon, and evening with examples of activities done during each. Show picture cards to illustrate each time of day.
- 3 Identify activities for each time of day: Ask learners to name activities they do in the morning, afternoon, and evening. Learners can also sign or act out the activities to reinforce understanding.
- 4 Storytelling using pictures: Show pictures from the book or cards depicting different daily activities. Guide learners to tell a story in order, identifying which activities happen in the morning, afternoon, and evening.
- 5 Sing songs about time: End the lesson with singing songs about daily routines. Encourage learners to act out the activities as they sing, reinforcing their understanding of time and sequence.

Time

Unit objectives

By the end of the lesson, learners should be able to:

- a say the times shown in at least 3 pictures.
- b say the time that they sleep.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 57.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Pictures showing the sun, moon and stars.

Teaching notes

Begin the lesson by greeting the learners and engaging them in a short conversation about the time of day. Ask simple questions such as, “What time of day is it now?” or “What do you do in the morning?” Show pictures of the sun rising, sun overhead, and the moon and stars. Explain that each picture represents a different time of the day.

- 1 Learners sing songs about time. Begin with a simple, rhythmic song such as “This is the way we start the day...” or any familiar local song about time. Encourage learners to sing along and do simple actions (stretch, pretend to brush teeth).
- 2 Class names activities done in the morning and raise the morning sun card. Show the morning sun card. Ask: “What do we do in the morning?” Expected answers: brush teeth, bath, eat breakfast, go to school. Learners raise the morning sun card when they hear a morning activity.
- 3 Learners name the activities done in the afternoon and raise the afternoon sun card. Show the afternoon sun card. Ask learners to think of activities done after lunch.
 - Expected answers: playing outside, learning at school, eating lunch, walking home.Learners raise the afternoon sun card when they hear an afternoon activity.
- 4 Learners name the activities done at night and raise the picture of the moon and stars. Show the moon and stars card. Ask: “What do you do at night?” Expected answers: eating supper, bathing, doing homework, sleeping. Learners raise the moon card when they hear a night activity.
- 5 The class tells stories from the pictures, telling the time. Display pictures showing activities at different times of the day (waking up, eating lunch, sleeping). Ask guiding questions:
 - “What is happening in this picture?”
 - “Is it morning, afternoon, or night?”
 - Learners create short, simple oral stories describing the activities and the time of day.

Time

Unit objectives

By the end of the lesson, learners should be able to:

- a say the time shown in at least 2 pictures.
- b colour the pictures within the frame.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 58.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Crayons, charts/pictures showing different activities.

Teaching notes

- Begin the lesson by showing learners two or more pictures of clocks or scenes that clearly indicate a time of day (morning sun, lunchtime, bedtime). Ask simple questions like:
 - “What time do you see here?”
 - “What do we normally do at this time?”
- This activates prior knowledge and prepares learners for the activities.

1 Learners tell the time shown in at least two pictures. Display two or more pictures that show a specific time (clock faces or illustrated scenes). Ask learners to look carefully and say the time aloud. Guide them using questions such as:

- “Where is the short hand pointing?”
- “Where is the long hand pointing?”
- “Is it morning, afternoon, or evening?”
- Allow learners to answer individually, in pairs, or as a class. Encourage correct pronunciation and complete statements such as: “It is 7 a.m.”

2 The class colours the pictures within the frame. Hand out worksheets or display pictures for colouring. Instruct learners to colour neatly inside the lines, choosing suitable colours. Move around the class, encouraging learners and assisting where needed. Once finished, let learners display their work or share with a partner. Reinforce vocabulary by asking:

- “Tell your partner what time your picture shows.”

Time

Unit objectives

By the end of the lesson, learners should be able to:

- a arrange the pictures in their correct order.
- b write numbers to put the activities in order.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 59.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Chart/ pictures showing activities done during different times of the day, pencils.

Teaching notes

Begin by showing learners familiar pictures of daily activities (waking up, going to school, playing in the afternoon, going to bed). Ask simple questions to activate prior knowledge:

- “When do we wake up?”
- “When do we go to bed?”

Encourage learners to respond orally or through signing, depending on their ability. This helps connect the day’s lesson to their everyday experiences.

- 1** Learners sing about time. Begin the lesson with a simple time-related song such as “This is the way we start the day” or “Morning, Afternoon, Evening”. Encourage learners to clap or make simple movements that match the song. Use the song to introduce the idea that the day has different times.
- 2** Learners say/sign activities done during different times of the day. Show picture cards of common daily activities (brushing teeth, going to school, eating lunch, playing, sleeping). Ask learners to say or sign what activity happens at each time (morning, afternoon, evening/night). Guide them with prompts:
 - “What do we do in the morning?”
 - “Who can sign ‘sleep’?”
 - “What do we do at night?”
 - Allow learners to respond individually or in small groups.
- 3** Learners arrange the pictures in order of the time of day. Provide sets of picture cards showing daily activities. Ask learners to place the pictures in a sequence from morning → afternoon → evening/night. Model the first example, then allow groups to work independently. Move around the classroom assisting and asking guiding questions such as:
 - “Which activity happens first?”
 - “What comes next?”
- 4** Learners write numbers to put the activities in their correct order. Provide worksheets with the same pictures printed. Instruct learners to write the numbers 1, 2, 3... to show the order of activities. Emphasise neat writing and correct sequencing. When completed, allow learners to read or sign their sequence to a partner or to the class.

Mass

Unit objectives

By the end of the lesson, learners should be able to:

- a** identify the heavier one.
- b** colour the picture within the frame.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 60.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- See-saw and crayons.

Teaching notes

- Begin by showing learners real-life objects of different weights (a stone and a feather, a book and a balloon). Allow learners to touch/hold the items to feel the difference. Ask questions such as:
 - “Which one is heavy?”
 - “Which one is light?”

This activates learners’ prior knowledge and creates curiosity before the lesson formally begins.

- 1** The facilitator leads learners in singing songs about weight. Teach a simple rhyme such as “Heavy, heavy, heavy... Light, light, light...” Use gestures like pretending to lift something heavy or something light. Help learners repeat key words: heavy and light.
- 2** The class sings various songs about weight. Allow learners to choose their favourite weight-related song. Encourage them to move, lifting hands for light, bending knees, or making a “strong” pose for heavy. Reinforce the vocabulary in a fun, rhythmic way.
- 3** The facilitator explains that there are different weights, but we describe them as heavy and light. Show contrasting objects or pictures. Explain simply: “Some things weigh more — these are heavy. Some things weigh less — these are light.” Demonstrate using voice tone (deep for heavy, soft for light).
- 4** Learners play on the see-saw and tell who is heavy and who is light. Supervise learners safely as they take turns on a see-saw or balance scale. Ask guiding questions:
 - “Who goes down? That person is heavy.”
 - “Who goes up? That person is light.”
 - Allow them to describe or sign their observations.

- 5 Learners identify who weighs less in the pictures. Display pictures of two children, animals, or objects on opposite sides of a balance or see-saw. Ask learners to point to or say/sign who is lighter. Reinforce correct responses using positive feedback.
- 6 Learners say/sign who weighs more in the pictures. Using the same or new picture sets, ask learners to identify who is heavier. Encourage them to use full responses such as:
 - “The boy is heavy.”
 - “The dog weighs more.”
- 7 Learners colour the pictures. Provide worksheets with see-saws, balances, and pairs of objects. Ask learners to colour neatly within the lines. Encourage them to talk or sign about the pictures as they colour:
 - “This one is heavy.”
 - “This one is light.”

Mass

Unit objectives

By the end of the lesson, learners should be able to:

- a colour the heavier objects in each set.
- b cut and paste the picture of the bucket from the sticker page.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 61.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Books, leaves, drums, buckets, model buses, cars and pencils.

Teaching notes

Begin by engaging the learners with a fun and familiar activity. Weight is a concept young children understand through everyday experiences such as lifting toys, food items, or buckets of water. Singing a weight-related song helps capture their attention and sets the tone for an interactive lesson.

- 1 Learners sing a song about weight. Begin the lesson with a simple song such as “Heavy, heavy, heavy... light, light, light!” Encourage movement: learners lift their hands for heavy and down for light.
- 2 The facilitator helps learners give a recap of the lesson. Ask learners what they learned in the previous lesson about weight. Guide them with questions such as:
 - “What does heavy mean?”

- “What does light mean?”
- “Can you show me something heavy/light in the classroom?”

- 3 Learners cut and paste the picture of the bucket from the sticker page. Provide sticker sheets or cut-outs. Demonstrate how to cut safely and paste neatly. Move around, helping learners who may need assistance.
- 4 Learners say/sign what they can see. Ask learners to describe the picture:
 - “What do you see?”
 - “Is this a bucket?”
 - Encourage signing for learners who use sign language.
- 5 Learners say/sign which one is heavier or lighter. Show pictures or objects in pairs (a small cup vs a bucket). Let learners point, say, or sign which one is heavier and which one is lighter. Praise all responses to build confidence.
- 6 Learners colour the heavier object in each set. Provide worksheets with pairs of objects (stone vs feather, big bucket vs small cup). Instruct learners to colour only the heavier object in each pair. Move around to support learners and reinforce correct comparisons.

Mass

Unit objectives

By the end of the lesson, learners should be able to:

- a colour the heavier object only.
- b say/name the heavier object.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 62.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Cabbage, apple, pear, mango, banana, grape, crayons and beam balance scale.

Teaching notes

Introduce the concept of weight by connecting to what children already know. Learners often understand weight through lifting toys, food, or school items. Remind them that objects can be heavy or light, and that we use tools such as a beam balance to measure weight. Create a warm and engaging atmosphere by allowing learners to handle simple objects.

- 1 Learners give a recap of the previous lesson. Ask questions such as:
 - “What does heavy mean?”
 - “What does light mean?”

- Let learners show examples using items around them. Acknowledge and encourage all responses to build confidence.
- 2 The facilitator explains that we measure weight using a beam balance scale and shows them the scale. Display a real beam balance or a picture/model. Explain how it works using simple language:
 - “If a side goes down, it means that side is heavier.”
 - “If a side goes up, it is lighter.”
 - Demonstrate by placing two simple objects on each side.
 - 3 Learners place different objects on the scale and say which objects are heavier and which ones are lighter. Provide small classroom objects (pencils, stones, balls, cups, toys). Let learners work in pairs or small groups. Each learner places an object on one side and compares it with another object. Guide them to say or sign:
 - “The stone is heavier.”
 - “The cup is lighter.”
 - Encourage them to observe how the scale moves.
 - 4 Learners colour the cabbage. Provide worksheets with a picture of a cabbage. Instruct learners to colour the cabbage neatly. As they colour, reinforce vocabulary by asking:
 - “Is a cabbage heavy or light compared to a feather?”
 - “What other things are heavier than a cabbage?”

Length

Unit objectives

By the end of the lesson, learners should be able to:

- a count the sticks on each table.
- b write the number of sticks on each table.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 63.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Tables, same length sticks and rulers.

Teaching notes

Begin by engaging learners with familiar examples of objects that are long or short (a pencil vs. a crayon, a rope vs. a stick). Explain that we use length to describe how long things are, and that measuring helps us compare objects. Use real objects to capture interest and activate prior knowledge.

- 1 Learners sing a song about length. Begin with a simple action song such as “Long and short, long and short, which one is longer?” Encourage learners to stretch their arms wide for “long” and keep arms close for “short.”
- 2 The facilitator explains that length measures how long something is. Use simple objects to show examples:
 - “This pencil is long.”
 - “This crayon is short.”
 - Use gestures or sign language for “long” and “short.”
- 3 The facilitator demonstrates how to measure length using rulers or same-length sticks. Show learners how to place a ruler or a stick starting at the end of an object. Demonstrate counting sticks placed end-to-end to measure length. Emphasise that the tool must start at the beginning of the object.
- 4 Learners count the sticks on each table. Place a different number of sticks on different tables or work stations. Guide learners to count each set aloud or using sign language. Move around to support those who need help.
- 5 Learners write the number of sticks on each table. Give learners their worksheets or slates. Ask them to write the number corresponding to each table. Reinforce correct number formation and counting.
- 6 Learners colour the longer table. Provide a worksheet with pictures of two tables of different lengths. Ask learners to compare them and colour the longer one. Encourage them to explain:
 - “This table is longer because it has more sticks.”
 - “This one is shorter.”

Length

Unit objectives

By the end of the lesson, learners should be able to:

- a identify the longer pencil.
- b colour the longer objects blue.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 64.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Pencils, sticks, rulers, walking sticks of different sizes and crayons.

Teaching notes

Begin by showing learners familiar objects of different lengths, such as sticks, pencils, or knobkerries. Ask simple guiding questions like, “Which one looks longer?” or “Which one is shorter?” This activates prior knowledge and prepares learners to compare lengths using observation.

- 1 Learners sing songs about length. Begin the lesson with action songs that include words like “long” and “short.” Encourage learners to stretch their arms wide for “long” and keep them close for “short.”
- 2 The facilitator helps learners give a recap of the previous lesson. Ask: “What did we learn about length yesterday?” Let learners mention or sign key ideas such as long, short, comparing objects, or measuring informally. Clarify any misconceptions before continuing.
- 3 Learners say/sign what they can see. Show learners pictures or real objects (sticks, pencils, knobkerries). Ask them to describe or sign what they observe:
 - “I see a long stick.”
 - “This pencil is short.”
- 4 Learners point at the longer stick, pencil, or knobkerry. Place two or more objects side by side. Ask learners to point to the longer one. Give each child a chance to participate. Encourage verbal or signed responses such as “This is longer.”
- 5 Learners colour the shorter objects green. Provide a worksheet with pairs of objects. Ask learners to identify the shorter object in each pair and colour it green. Give guidance where needed.
- 6 Learners colour the longer objects blue. Learners now colour the longer object in each pair blue. Move around the class to support correct comparison and colouring.

Length

Unit objectives

By the end of the lesson, learners should be able to:

- a say/ sign which desk is shorter.
- b say/ sign which desk is longer.

Suggested teaching and learning resources

- Plusone Mathematics ECD B workbook page 65.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Rulers, tables and crayons.

Teaching notes

- Begin by reminding learners that we measure length to find out how long objects are. Show familiar classroom items — desks, books, pencils — and ask simple questions such as:
- “Which one looks longer?”
- “Which one is shorter?”
- This helps learners activate their previous knowledge and prepares them for hands-on measurement.

1 Learners give a recap of the previous lesson. Ask learners: “What did we learn about length last time?”

- Expect answers like long/short objects, comparing lengths, or identifying longer and shorter items. Allow learners to respond verbally or through sign language. Clarify key terms before moving forward.

2 Learners identify the measuring tools (rulers). Show learners a ruler, explaining it is a tool used for measuring length. Let learners hold and look at the ruler. Ask them to name/sign it. Place several tools on a table (pencil, ruler, eraser, spoon) and ask: “Which one is used for measuring?”

- Learners point to or pick up the ruler.

3 Learners identify which desk is longer. Select two desks of different lengths and stand them side by side. Ask learners to compare by looking carefully. Guide them with questions like: “Which desk is longer?” Encourage pointing, signing, or verbal responses. Let learners move close to observe clearly.

4 Learners identify which desk is shorter. Using the same desks or different ones, ask: “Which desk is shorter?” Allow learners to discuss in groups or pairs before giving answers. Encourage correct vocabulary: longer, shorter.

5 Learners measure their desk using their hand span. Demonstrate how to measure using a hand span:

- Place one hand at the start of the desk.
- Move hand-over-hand until reaching the end.
- Count the number of hand spans.
- Let learners measure their own desks.
- Support them as they count — “One hand span, two, three...”
- Have learners share how many hand spans long their desks are.

Volume

Unit objectives

By the end of the lesson, learners should be able to:

- a** identify which container holds less.
- b** colour the container that holds less.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 66.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Cups, jugs, bottles, teapots, pots and crayons.

Teaching notes

Begin the lesson by showing children familiar containers such as cups, tins, buckets, bottles, or bowls. Ask simple questions:

- “Which one can carry more water?”
- “Which one can carry less?”

This helps activate their prior knowledge and prepares them to explore the concept of volume through play and observation.

- 1** The facilitator leads learners in singing a song about volume. Begin with a simple song such as:
 - “Fill the cup, pour it out,
 - Big ones hold more, small ones hold less!”
 - Use actions of filling and pouring to make the song meaningful.
- 2** The facilitator explains that volume is how much a container can hold. Show two containers — one big, one small. Demonstrate filling them with sand or water and say:
 - “This big container holds more.”
 - “This small container holds less.”
 - Encourage learners to repeat the words more and less.
- 3** Learners identify the pictures available. Display pictures of different containers (bucket, cup, bottle, bowl, tin). Ask learners to point at or name/sign the objects. Ask questions such as:
 - “What do you see here?”
 - “Is it a bucket or a cup?”

- 4 Learners experiment with containers and say which ones hold more or less. Give small groups a set of containers of different sizes. Let them fill containers using sand, stones, or water (if available). Ask them to compare and decide:
 - “Which one holds more?”
 - “Which one holds less?”
 - Encourage learners to explain or sign their answers.
- 5 Learners colour the container that holds more. Give them a worksheet with two containers — one big, one small. Instruct them to colour the bigger container (the one that holds more).
- 6 Learners colour the container that holds less. Learners then colour the smaller container on the worksheet. Move around the classroom assisting as needed.

Filling and emptying

Unit objectives

By the end of the lesson, learners should be able to:

- a say/ write how many small containers are needed to fill the big container.
- b use sand/ water to measure the capacity of each bigger container in each row.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 67.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Jug, cups, bottles, buckets and pencils.

Teaching notes

Begin the lesson by warmly greeting the learners. Create excitement by showing different containers of various shapes and sizes (cups, tins, small buckets, bowls, bottles). Place them where all learners can see. Briefly remind them that volume is about how much a container can hold. Invite a few learners to talk about what they remember from the previous activity on volume.

- 1 Learners give a recap of the previous lesson. Ask learners: “What did we learn about volume yesterday?” Allow learners to say/sign: holds more or holds less. Praise all contributions to build confidence.
- 2 Learners identify the containers available. Display all containers on a table. Ask learners to come forward and point, touch, or name containers such as:
 - cup, bowl, tin and small bucket.

Let learners sort them into big containers and small containers.

- 3 Learners use smaller containers to fill bigger containers and say how many they have used. Demonstrate filling a big container using a small one. Then divide learners into groups, each with:
 - 1 large container
 - 1 small container
 - Water or sand (depending on availability)
 - Task: Learners fill the bigger container using the smaller one while counting:
 - “1 small cup... 2 small cups... 3 small cups...”
 - Ask guiding questions:
 - “How many small cups filled the big bowl?”
 - “Which container needed more small cups?”
 - “Which one needed fewer?”
 - Encourage learners to express the result verbally or through signs.
- 4 Learners write their answers in each box. Provide a worksheet or chalkboard activity with pictures of containers and blank boxes beneath. Learners write the number of small containers used to fill the larger one (4, 7, 10). Support learners who may need help holding writing tools or forming numerals. Praise learners for active participation. Summarise the key idea: “A big container needs more small containers to fill it. A small container needs fewer.” Allow learners to share what they enjoyed during the activity.

Volume

Unit objectives

By the end of the lesson, learners should be able to:

- a cross out the jug with more water.
- b tick the jug with less water.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 68.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Water jugs and pencils.

Teaching notes

Begin by welcoming the learners and showing excitement. Sing a familiar song about liquids or water to engage the learners. Recall the previous lesson on volume and ask learners what they remember about filling and comparing containers.

- 1 Learners sing a song about volume. Lead learners in a song about water or filling containers to set the mood for the lesson. Encourage actions like pretending to pour water to reinforce the concept.
- 2 Learners give a recap of the previous lesson. Ask questions like:
 - “What did we learn about big and small containers?”
 - “Which holds more water?”
 - Praise learners for their responses and encourage participation.
- 3 Learners say/sign which jug has more. Show two jugs (real or pictured). Learners identify which jug has more water verbally or with signs.
- 4 Learners cross out the jug that has more water. On a worksheet or picture, learners cross out the jug with more water to reinforce recognition.
- 5 Learners say/sign which jug has less. Learners identify the jug with less water and share their observation with the class.
- 6 Learners tick the jug that has more water. On the worksheet, learners tick the jug that has more water. Encourage learners to explain their choice verbally or using sign language. Recap the lesson: “We can see which container has more or less water.” Praise all learners for participating actively. Encourage learners to observe containers at home and talk about which holds more or less water.

Plane shapes

Unit objectives

By the end of the lesson, learners should be able to:

- a name at least 3 plain shapes.
- b join the dots on the triangles.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 69.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Circle, square, rectangle and triangle cards and pencils.

Teaching notes

Begin the lesson by greeting the learners and creating excitement. Lead learners in singing “4 shapes that i know” to engage them and introduce the topic in a fun way. Ask learners if they can name any shapes they have seen around them in the classroom or at home.

- 1 Learners sing a song about shapes. Lead learners in singing “4 shapes that i know”. Encourage learners to point to or hold up shape cards as they sing.
- 2 Explain the 4 plane shapes. Introduce circle, square, and rectangle. Explain each shape’s properties:
 - Circle: round, no corners, no sides.
 - Square: 4 equal sides, 4 corners.
 - Rectangle: 4 sides (opposite sides equal), 4 corners.
- 3 Describe shapes using properties. Ask learners questions like:
 - “How many sides does a square have?”
 - “Which shape has no corners?”
 - Encourage learners to describe the shapes verbally or by pointing/signing.
- 4 Learners identify and name shapes. Show learners shape cards or real objects. Learners name the shapes aloud or by using sign language.
- 5 Learners sort and trace shapes. Give learners shape cards to sort according to type. Learners trace the shapes on paper to practise shape formation.
- 6 Learners join the dots on rectangles. Learners complete dot-to-dot rectangles in their workbooks. This reinforces shape recognition, fine motor skills, and the concept of sides and corners. Recap the shapes learned and their properties. Encourage learners to spot circles, squares, and rectangles in the classroom or at home. Praise learners for participation and correct responses.

Matching shapes

Unit objectives

By the end of the lesson, learners should be able to:

- a match the 4 shapes correctly.
- b colour the triangle blue, circle green, square red and triangle yellow.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 70.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Shape cards for circle, rectangle, square, triangle, pencils and crayons.

Teaching notes

Greet learners and create excitement for the lesson. Ask learners to say or sign the shapes they already know. Show shape cards or objects to help learners recall shapes in a familiar context. Introduce the four shapes to focus on: rectangle, circle, square, and triangle.

- 1 Learners say/sign the shapes they know. Ask learners to name or sign each shape as you display it. Reinforce correct pronunciation and properties of each shape.
- 2 Learners join the dots on the shapes. Provide dot-to-dot worksheets for rectangle, circle, square, and triangle. Learners trace the shapes by joining the dots, which enhances fine motor skills and shape recognition.
- 3 Learners match the shapes. Give learners cut-out shapes or picture cards. Ask them to match identical shapes to reinforce recognition and categorisation skills.
- 4 Learners colour the shapes. Instruct learners to colour:
 - Rectangle – blue
 - Circle – green
 - Square – red
 - Triangle – yellow

Encourage careful colouring within the lines to improve coordination and concentration. Review each shape and its properties with the learners. Ask learners to point to objects around the classroom that match the shapes learned. Praise participation and correct responses.

Topic 4

Relationships

Visual and spatial relationships

Unit objectives

By the end of the lesson, learners should be able to:

- a** place an object on a table.
- b** place an object under a table.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 71.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Bean bags, toys, blocks, books, chairs, tables and crayons.

Teaching notes

Begin the lesson by singing the song “Mango tree... I sit under the mango tree” with the learners. Discuss the words “on” and “under”, providing simple, familiar examples (the book is on the table, the cat is under the chair). Explain that these words describe where objects are in relation to other objects.

- 1** Singing the song: Lead learners in singing “Mango tree... I sit under the mango tree.” Use actions to reinforce the meanings of on and under as they sing.
- 2** Explanation and demonstration: Demonstrate placing a cat toy on the chair and under the chair. Give learners oral and visual cues and ask them to repeat the terms.
- 3** Learners practise positioning objects. Provide a chair or table and various small objects (toys, cups, books). Ask learners to place the objects on or under the chair/table as instructed. Walk around and correct positioning, reinforcing learning through guidance.
- 4** Learners describe positions. Show a cat toy on or under the chair. Ask learners to say or sign where the cat is in relation to the chair. Encourage full participation and praise correct responses.

- 5** Colouring activity: Provide worksheets with pictures of a cat on and under a chair. Ask learners to colour the cat on the chair. This reinforces recognition of positions while practicing fine motor skills.

Review the terms on and under by asking learners to place objects in different positions. Encourage learners to point out objects on or under in the classroom. Praise learners for correct placement and participation.

Visual and spatial relations

Unit objectives

By the end of the lesson, learners should be able to:

- a** position at least 3 items under the table.
- b** draw a picture of a ball under the table.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 72.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Toys, blocks, crayons, books, pencils and tables.

Teaching notes

Begin the lesson by singing a song about positions with the learners to engage them and introduce the concept. Review the previous lesson on “on” and “under”. Ask learners to give examples from the classroom. Explain that today the focus will be on “under”— meaning below or beneath something.

- 1** Singing a song about positions: Lead learners in singing an action song related to positions, emphasizing under.
- 2** Recap of the previous lesson: Ask learners to recall what they learned about positions, especially on and under. Encourage a few learners to give examples of objects in the classroom that are on or under.
- 3** Physical demonstration: Ask learners to go under their tables to emphasise the position physically. Reinforce learning by pointing out the relationship: the learner is under the table.
- 4** Describing objects in relation to the table: Show an object, for example, a cup or toy, under the table. Ask learners: “Where is the cup?” Encourage full sentences: “The cup is under the table.”

- 5 Practise placing objects under the table: Provide small objects (toys, cups, pencils). Learners take turns placing objects under the table. Walk around to guide, praise correct placement, and reinforce vocabulary.
- 6 Drawing activity: Give learners paper and crayons. Ask them to draw a picture of a ball under the table. This allows learners to visualise and consolidate the concept creatively.

Review the term under and ask learners to find other objects in the classroom that are under something. Praise participation and correct answers. Recap the previous and current lesson to reinforce understanding of position.

Patterns

Unit objectives

By the end of the lesson, learners should be able to:

- a trace patterns from left to right.
- b copy at least 3 written patterns as they are.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 73.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

- Pattern chart and pencils.

Teaching notes

Begin the lesson with an action song to engage learners and energize the class. Explain to learners that writing and reading in English is done from left to right. Demonstrate with a simple line of symbols, shapes, or letters on the board, moving from the left side to the right side.

- 1 Singing an action song: Lead learners in an action song to get them ready for learning. Ensure learners are attentive and moving as directed by the song.
- 2 Explanation of left-to-right writing: Show learners a simple pattern on the board or chart. Use your finger to move from left to right along the pattern. Ask learners to say: “We start from the left and go to the right.”
- 3 Writing patterns in the air: Learners use their index fingers to draw patterns in the air following the left-to-right direction. Demonstrate first, then have learners copy after you.
- 4 Tracing patterns: Provide learners with worksheets or pre-drawn patterns. Learners trace the patterns from left to right with a pencil. Walk around and guide learners who are reversing direction.

- 5** Copying patterns with coloured pencils or crayons: Learners choose different colours to copy the patterns themselves. Encourage creativity while maintaining left-to-right direction. Praise correct copying and neatness.

Review the lesson by asking learners to demonstrate writing in the air from left to right. Highlight the importance of starting from the left side when writing. Encourage learners to practise at home or in the classroom regularly to strengthen motor skills.

Patterns

Objectives

By the end of the lesson, learners should be able to:

- a** copy the patterns as written.
- b** write their own patterns.

Suggested teaching and learning resources

- PlusOne Mathematics ECD B workbook page 74.
- Heritage Based Curriculum (HBC) Mathematics Infant syllabus.

Suggested teaching and learning materials

Pattern chart and pencils.

Teacher's notes

Begin by asking learners to recall the previous lesson on left-to-right writing and pattern tracing. Briefly remind learners that writing starts from the left side of the page and moves to the right. Explain that today they will trace patterns, write patterns, and create their own patterns on worksheets and in their workbooks.

- 1** Recap of the previous lesson: Ask learners to demonstrate writing in the air from left to right. Encourage learners to share one thing they remember from the last lesson.
- 2** Tracing patterns: Learners trace given patterns on their worksheets from left to right. Facilitator monitors and guides learners who may reverse direction.
- 3** Writing their own patterns on worksheets: Learners are encouraged to create simple patterns (lines, shapes, curves) on their worksheets. Facilitate discussions about the types of patterns learners can use (zigzags, waves, circles).
- 4** Guided writing support: Facilitator demonstrates creating patterns on the board or chart from left to right. Learners follow along and correct their direction if necessary.
- 5** Writing patterns in the workbook: Learners copy their own patterns onto the workbook page 74. Encourage the use of colours for creativity while maintaining the left-to-right direction. Provide individual support to learners who struggle with spacing or direction.

Ask learners to show their favourite pattern and describe it. Reinforce that all writing and pattern-making should start from the left and go to the right. Praise learners for creativity and correct execution. Encourage daily practice to strengthen handwriting and pattern recognition skills.