

GRADE **2**

**TEACHER'S
GUIDE**

Platinum

Mathematics

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Platinum Mathematics Grade 2 Teacher's Guide

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1st impression 2025

ISBN 978-1-779-83281-8

ePDF 978-1-779-89599-8

Publisher: Thandi Kgosana

Managing Editor: Christine Moses

Edited by MK Sehowa

Cover design by MML Visual Design

Cover artwork by MML Visual Design

Book design by MML Visual Design

Artwork by MML

Typeset by Marco Casati

Printed by

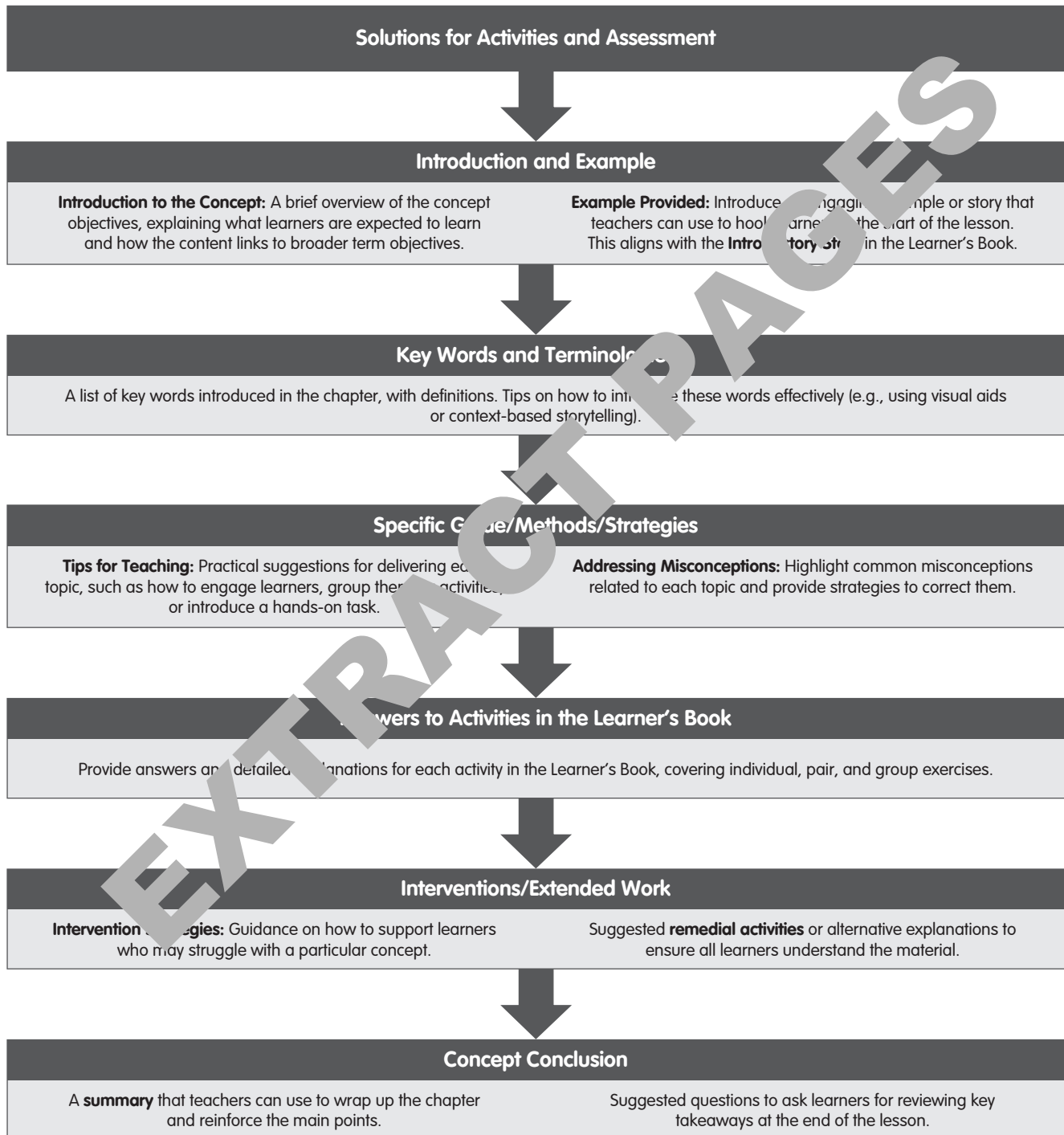
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Welcome

The Teacher's Guide (TG) is aligned with the Learner's Book, linking each topic to term objectives. It provides an introduction, teaching strategies, answers to activities, and more, giving teachers the tools to guide learners effectively through each chapter while connecting to Learner's Book content and activities.



Message by Publisher and Authors

Dear Teacher

As you step into your classroom each day, you're not simply entering a space filled with desks and textbooks. You are entering a place where futures are shaped, and possibilities are born. You hold the incredible power to inspire, guide, and nurture the future leaders, innovators, and changemakers. By sharing your passion, you are doing far more than just teaching; you are planting the seeds of kindness, courage, respect, and Ubuntu in every young heart.

We understand it's not always easy. The challenges of teaching, especially in under-resourced areas, can sometimes feel overwhelming. But with each challenge you face, you are making a real difference. You are telling your learners that their potential is limitless and that they are seen, valued, and capable of achieving greatness. Putting a smile on every learner's face is invaluable!



That is why our teaching resources are here to support you. Designed with CAPS objectives in mind, they focus on inclusivity and on creating a learning environment where every child can see themselves represented. The images, stories, and lessons reflect the diversity of our local context, helping every learner feel a sense of belonging in your classroom.

And we have not forgotten about you. Your well-being is just as important as the success of your learners. We have included self-care tools to keep you motivated and healthy because we know that when you feel good, your classroom thrives. Your happiness influences not just you're teaching but also the relationships you build with your learners, who look to you for hope and inspiration.

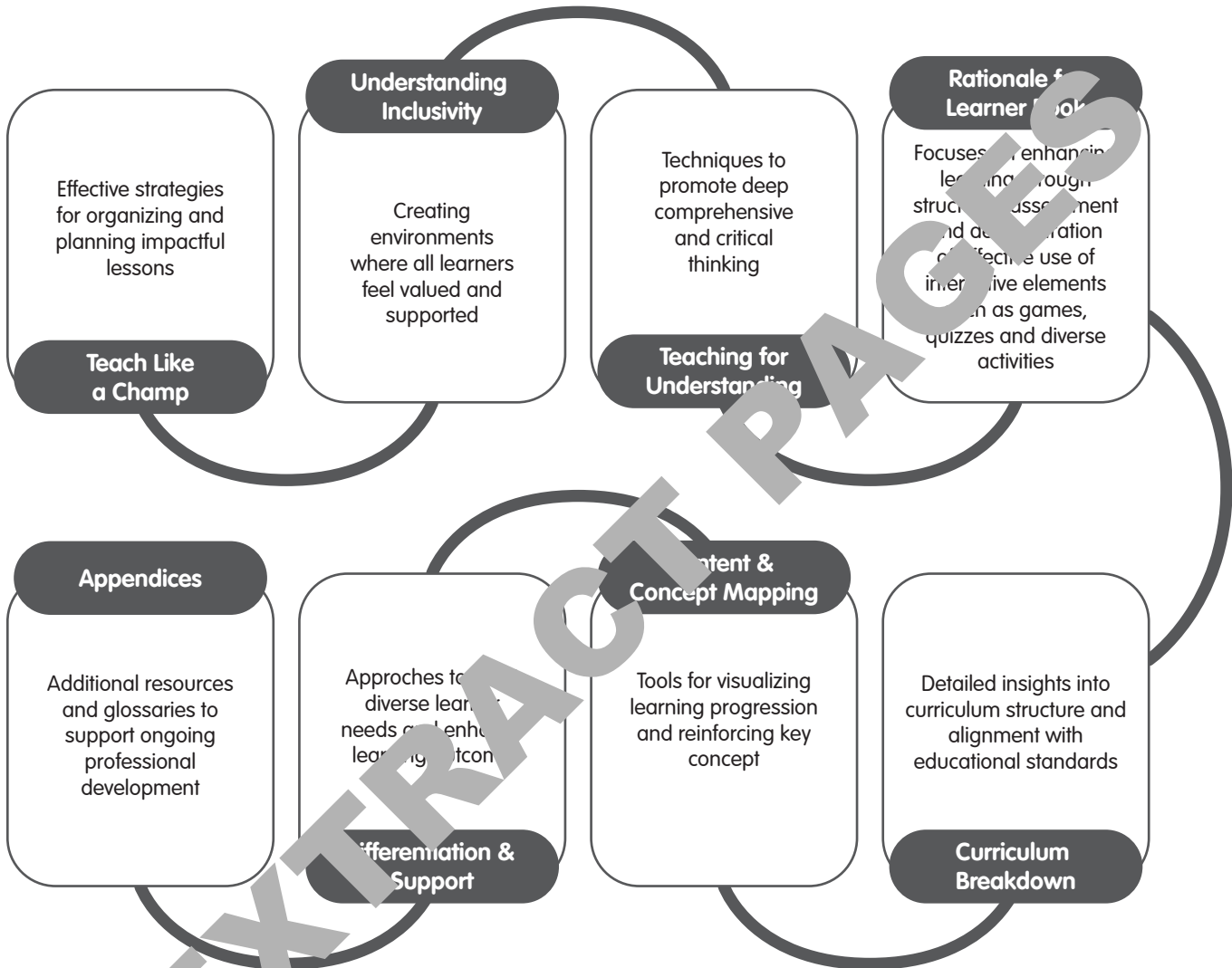
As South Africa continues to progress with the Basic Education Law Amendments Act (BELA), signed into law in 2024, the mission to create a more equitable and inclusive education system grows stronger. Your role in this mission is vital, and understanding both CAPS and BELA ensures your classroom is a place where learners are well-prepared for success.

You are a powerful force for positive change, and the impact you make in your classroom is greater than you may notice. As you teach, know that you are not just guiding your learners; you are shaping the future of our communities, our country, and the world.

Thank you for everything you do.

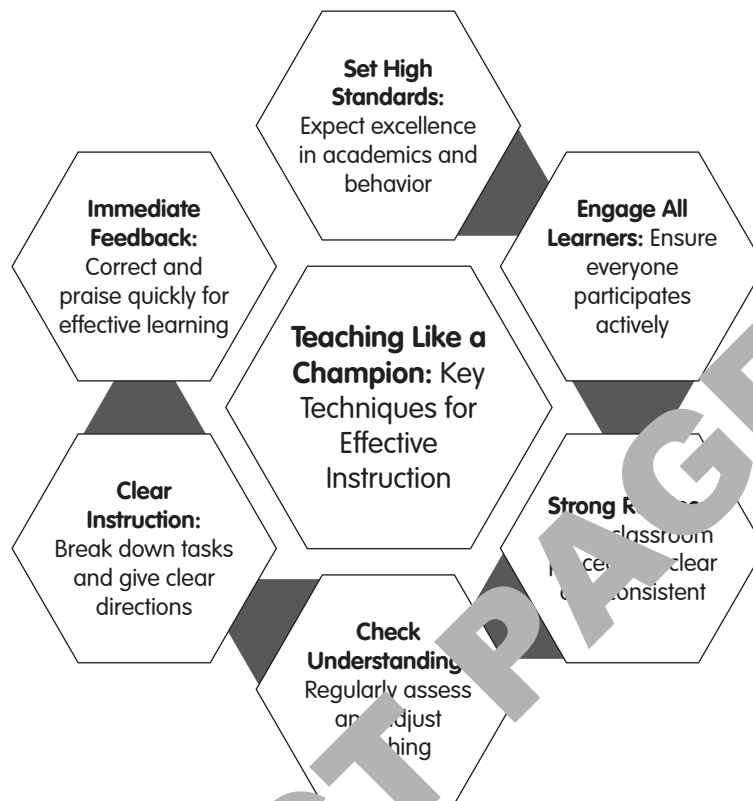
How to use this guide

Welcome to our Foundation Phase Teacher Guide, a valuable resource crafted to support educators utilising our Grade 1, 2, and 3 educational series. Designed with your teaching journey in mind, this guide offers practical insights and resources aimed at enhancing your instructional strategies and enriching student learning experiences.



In view of that, this guide further encourages ongoing reflection and growth, fostering a collaborative learning environment where teachers can continuously improve their pedagogical skills and positively impact student achievement. As result, we invite you to navigate through this guide, leveraging its insights and resources to enhance your teaching effectiveness and create transformative learning experiences in your classroom. Together, let's empower our students to succeed academically and beyond.

Teach like a Champ!



Diversity, Equity and Inclusivity

In this section, we would like you to think about your own classroom. Picture the children sitting in front of you, each with their own story, experiences, and challenges. Now, remember a moment when one of your learners struggled, perhaps with a difficult concept or something outside of school that affected their learning. What did you do in that moment? How did you reach out, make them feel seen, and guide them through the difficulty?

Your classroom is full with this kind of diversity, not just in background but in needs and abilities. Our country continues to face deep inequalities, whether economic, racial, or social, and these challenges often appear in your classroom. Yet it is here, in the heart of the classroom, that change happens. As a teacher, you play a vital role in ensuring each child can succeed, no matter where they come from or what obstacles they face.

CAPS places inclusivity and diversity at its core. It is not just about teaching the curriculum but about recognising the unique potential in each learner and helping them succeed. We understand this is not always easy. The challenges in many schools are real, and as a teacher, you are at the forefront of addressing them.



That is why our learning and teaching resources are designed to support you. They reflect the local context, showing learners a world that they recognise in the exercises, activities, and assessments they encounter. These materials consider the range of experiences and abilities in your classroom, giving you the tools to be inclusive and to support every learner, regardless of their background.

By using these resources, you are not just teaching the subject matter, you are meeting your learners where they are, recognising their struggles, and helping them overcome the barriers they face. In doing so, you are shaping a brighter future for every child, for your community, and for South Africa.

Types of diversity

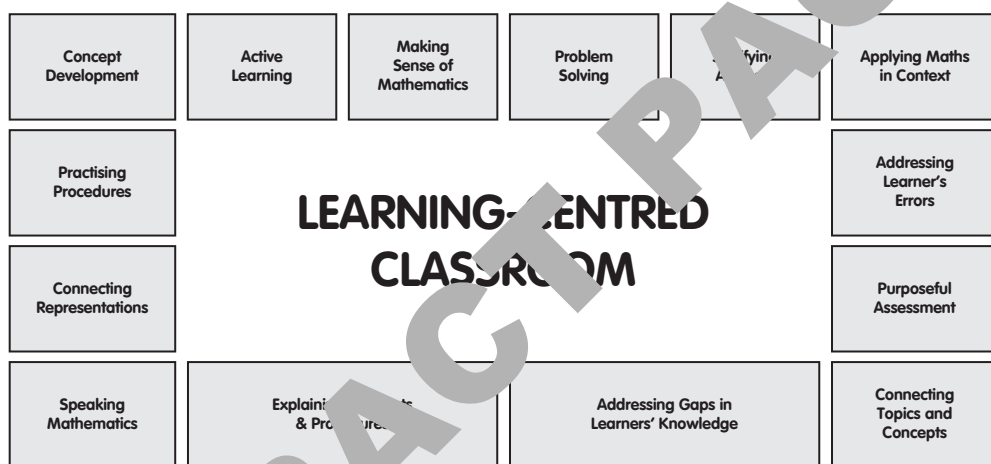
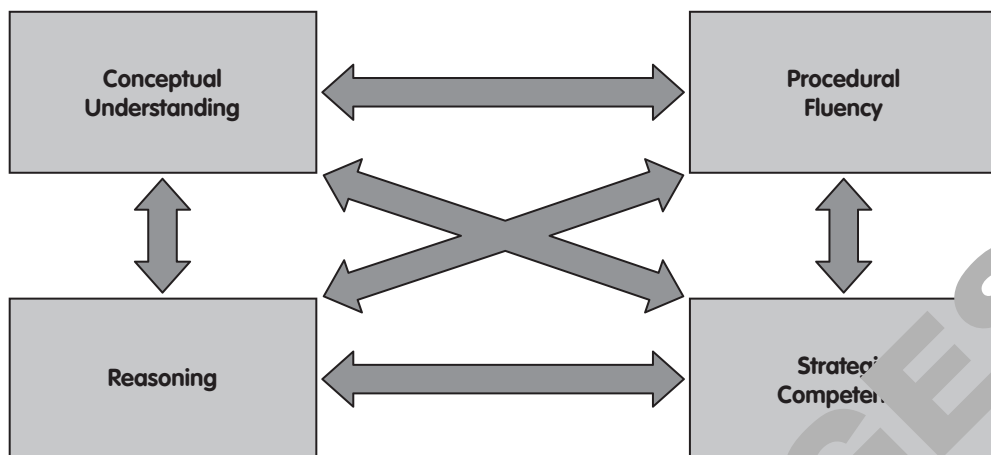
In this series, we focus on 10 key types of diversity categories, each carefully selected to ensure a broad and inclusive representation of different identities, perspectives, and experiences.

Table 1: Types of diversity

Diversity category	Definition	Coverage in the book
1. Cultural and Ethnic Diversity	This refers to representing various cultural and ethnic backgrounds, ensuring learners are exposed to different perspectives and traditions.	We have included characters, authors, and historical figures from diverse cultural backgrounds. Stories and examples incorporate a range of traditions, customs, and languages. This helps learners appreciate cultural richness and discourages stereotypes by offering balanced views on historical and contemporary issues.
2. Gender Diversity	Gender diversity refers to the representation of all genders and includes discussion around gender roles, non-binary identities, and gender fluidity.	You will notice equal representation of all genders in text, illustrations, and examples. We've included non-binary and gender-fluid characters, along with activities that challenge traditional gender roles. For instance, both boys and girls are shown engaging in diverse career paths, from helping in the kitchen to science and arts, promoting gender equality.
3. Socio-Economic Diversity	This involves representing people from different economic backgrounds and discussing issues of economic inequality.	We feature characters from a variety of socioeconomic contexts, highlighting challenges like access to education, healthcare, and resources. This allows learners to engage with real-life examples and discussions that reflect diverse economic situations, making the content relatable to all.
4. Linguistic Diversity	Linguistic diversity means including multiple languages and respecting the various dialects spoken by different communities.	You will find content that features multiple languages and encourages learners to respect different dialects. We've also included examples that highlight the importance of translation and interpretation, especially in a global village, preparing learners to be more inclusive in their communication.
5. Disability and Accessibility	This focuses on the representation of people with disabilities and addressing barriers to accessibility.	Characters with disabilities have been included, ensuring their representation in stories and activities. We also discuss issues of accessibility, whether physical, technological, or societal, and use inclusive, person-first language. This creates a more accepting environment for all learners and encourages empathy and understanding.

Diversity category	Definition	Coverage in the book
6. Sexual Orientation and LGBTQ+ Inclusion	LGBTQ+ stands for Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, and others. The "+" represents inclusivity of other sexual orientations, gender identities, and expressions beyond those explicitly listed, such as non-binary, pansexual, asexual, and gender-fluid individuals. This term is used to encompass a broad spectrum of sexual and gender identities, promoting acceptance and inclusion for all.	LGBTQ+ family structures are represented throughout the books, offering a diverse perspective. We've included examples and scenarios that explore LGBTQ+ issues and rights, as well as discussions on anti-discrimination, helping learners understand and respect diversity in sexual orientation.
7. Religious and Spiritual Diversity	This involves representing a variety of religious beliefs and promoting respect for different spiritual practices.	Our books contain content that introduces learners to various religions and spiritual practices. We've also encouraged interfaith dialogue to help foster respect and understanding across different belief systems. Several perspectives are included as well, ensuring all belief systems are respected and represented fairly.
8. Age Diversity	Age diversity involves including people from different age groups and discussing issues related to aging.	In the books, you'll find characters and examples ranging from young children to the elderly. We've highlighted the importance of intergenerational relationships, as well as discussed age-related topics like retirement and ageism. This helps learners understand the value of every age group in society.
9. Geographic Diversity	Geographic diversity represents people and cultures from various regions and environments, both global and local.	The books include content from different regions around the world, addressing both global issues and local contexts that are relevant to learners. We've also balanced examples from urban and rural settings, showcasing the unique challenges and benefits of each environment.
10. Cognitive and Learning Diversity	This refers to addressing different learning styles, abilities, and cognitive differences, such as neurodiversity.	We have embraced cognitive and learning diversity by incorporating varied teaching methods that cater to different learning styles. Activities are designed to accommodate a wide range of learning needs, promoting an inclusive learning environment. We have also added quick pre-assessments for you to consider.

Teaching Mathematics for Understanding (TMU)



Understanding entails the ability to think flexibly and adapt effectively in relation to a topic or concept. It goes beyond simply gathering information, facts, or data, and it is not just the ability to mechanically follow procedural steps. In mathematics, understanding is demonstrated when learners can justify the truth of a mathematical claim or answer and explain the reasoning behind a mathematical rule (CCSSO, 2010). The diagram on the right illustrates the Framework model of mathematics teaching and learning, highlighting four key strands of mathematical proficiency, from Kilpatrick et al's 2001 strands for mathematics proficiency:

- **Conceptual understanding:** helping children understand what maths ideas mean and how they relate to each other.
- **Procedural fluency:** practicing maths steps so children can do them accurately, quickly, and in different ways.
- **Strategic competence:** guiding children to find, think about, and solve maths problems.
- **Reasoning:** encouraging children to think about and explain their math answers and the steps they took.

These strands interact dynamically within a **learning-centred classroom**, which emphasises active learning, concept development, problem solving, and making sense of mathematics.

The classroom also focuses on practising procedures, connecting representations, and addressing gaps in learners' knowledge. Overall, the framework aims at teaching mathematics for understanding through a comprehensive and integrated approach.

Reference to Teaching Resources

Design of the Learners Book

The Learner's Book offers abundant **practice opportunities** through individual, peer, group, and class activities, supporting mastery in learning. Practice is essential for skill development, and the book incorporates **engaging games and enjoyable activities**, providing learners with additional avenues to reinforce their understanding. These activities not only promote continuous assessment but also create a **fun and creative learning experience**.

Stories	Stories are incorporated to enhance memory retention and understanding by connecting concepts to relatable contexts and encouraging imaginative engagement.
Independent Work	This develops self-discipline and critical thinking, empowering learners to take ownership of their learning and develop problem-solving skills.
Peer and Group Work	Collaborative activities foster communication, teamwork, and the ability to understand diverse perspectives, while promoting social skills.
Whole Class Activities	These activities promote a sense of community and collective learning, encouraging learners to share experiences and participate in group discussions.
New Words	This feature defines new vocabulary in a clear and accessible manner, helping learners understand and remember the meanings of words.
End of Term Test	These quizzes integrate multiple subjects, requiring learners to apply their knowledge across various topics. This approach uses questions addressing different levels of complexity to help assess learners' overall understanding and retention.
Time to Explore	This learning feature provides learners with a wide range of stimulating and informative information, along with thought-provoking questions aimed at encouraging exploration and innovative problem-solving.
Activities	Through practical projects, these activities stimulate creativity and innovation, allowing learners to apply theoretical knowledge in real-world scenarios and develop critical thinking.

Structure for Grade 2 Mathematics Learner book

Imagine guiding your young learners on a journey of discovery, beginning with familiar skills like counting and place value. Together, you lay a sturdy foundation—a safe starting point where they can build their confidence and sense of wonder.

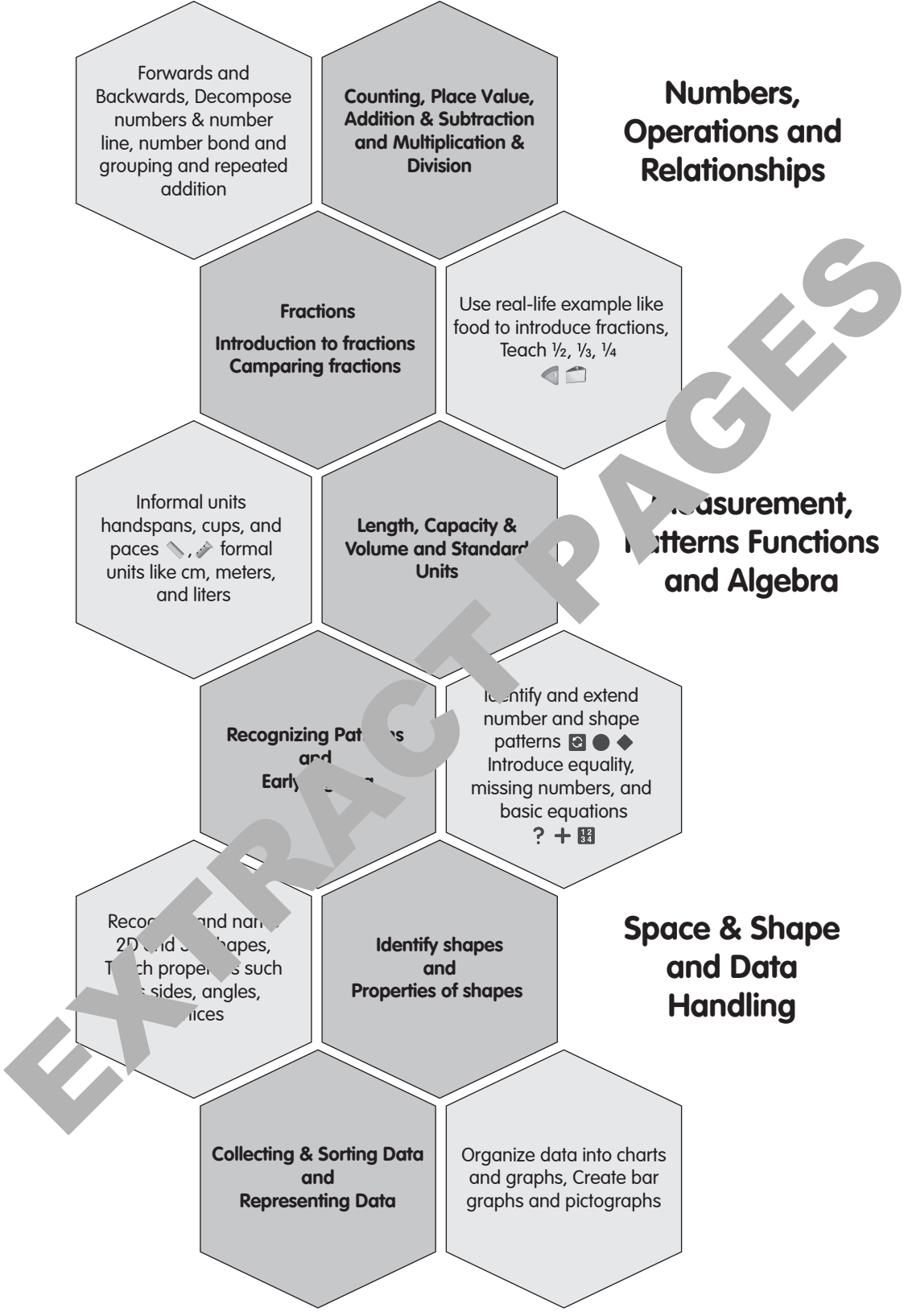
The content of this series has been designed in such a way that the curriculum is covered seamlessly, not as a series of tick-box exercises, but as a flowing story where each topic naturally leads to the next, creating a path that feels intuitive and connected.

As they grow, you lead them further along this journey. Numbers become trusted friends, and learners start unlocking mysteries of the world around them. Counting becomes more than just numbers—it's the beginning of understanding fractions, like slicing up a favourite treat and seeing each part as a piece of a whole.

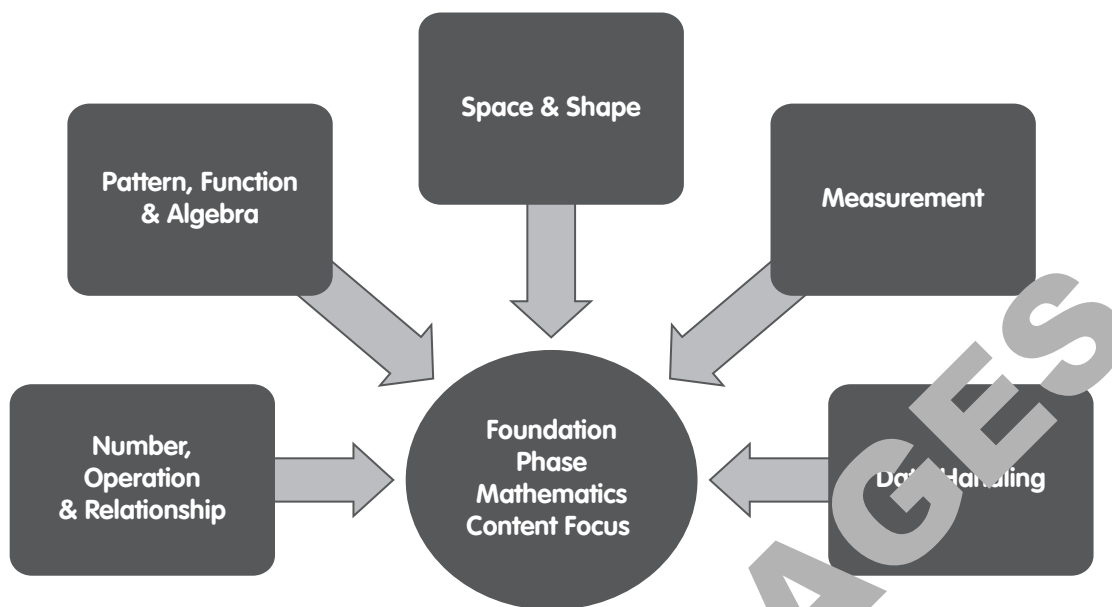
Next come patterns, woven into the lessons like a melody they can follow, forming the first steps into algebraic thinking—a puzzle that becomes clearer with each step. Then, measurement arrives, leading to an exploration of size and quantity, helping learners see how things fit together in their world. Finally, they delve into data handling, where they learn to compare, sort, and interpret information, setting the stage for future skills in graphing and analysis.

The Annual Teaching Plan (ATP) brings this story to life, with each topic flowing smoothly into the next like chapters in a book, reinforcing previous learning and introducing new ideas with intention. By the end of each term, learners can draw from each part of their journey, weaving together the concepts they have encountered into a colourful picture of understanding.

When it's time for the end-of-term assessment, it's not merely a test—it's a way for learners to bring the full story of their learning together. Questions draw on various topics and present different levels of challenge, ensuring each learner feels supported, engaged, and fully prepared for the next exciting chapter.



Curriculum Breakdown (CAPS)



Learning Objective per Content Area

Number, Operation and Relationships	Patterns, functions and algebra
<p>In this phase, the learners' number concept is developed through working with physical objects to count collections of objects, partition and combine quantities, skip count in various ways, solve contextual (word) problems, and build up and break down numbers.</p> <p>Counting enables learners to develop number concepts, mental mathematics, estimation, calculation skills and recognition of patterns.</p> <p>Number concept development helps learners to learn about properties of numbers and to develop strategies that can make calculations easier.</p> <p>Solving problems in context enables learners to communicate their thinking orally and in writing through drawings and symbols.</p> <p>Learners build understanding of basic operations of addition, subtraction, multiplication and division.</p> <p>Learners develop fraction concepts through solving problems involving the sharing of physical quantities and by using drawings. Problems should include solutions that result in a whole number of remainders or fractions. Sharing should involve not only finding parts of whole, but also finding parts of collections of objects. In this phase, learners are not expected to read or write fraction symbols.</p>	<p>In this phase, learners work with both number patterns (e.g. skip counting); and geometric patterns (e.g. pictures).</p> <p>Learners should use physical objects, drawings and symbolic forms to copy, extend, describe and create patterns.</p> <p>Copying the pattern helps learners to see the logic of how the pattern is made. Extending the pattern helps learners to check that they have properly understood the logic of the pattern.</p> <p>Describing the pattern helps learners to develop their language skills. Focusing on the logic of patterns lays the basis for developing algebraic thinking skills.</p> <p>Number patterns support number concept development and operational sense built in Numbers, Operations and Relationships.</p> <p>Geometric patterns include sequences of lines, shapes and objects but also patterns in the world. In geometric patterns learners apply their knowledge of space and shape.</p>

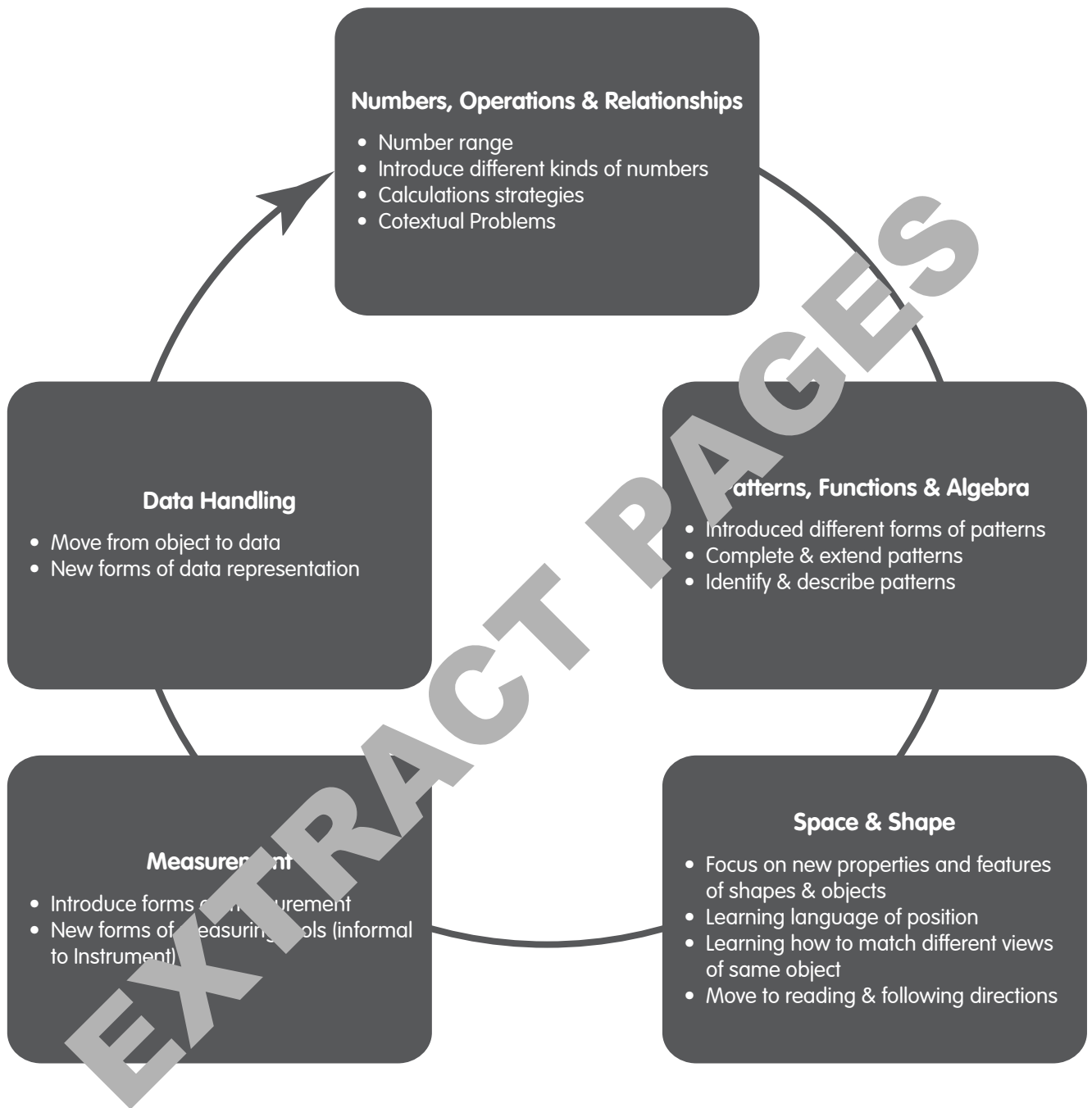
Space and Shape (Geometry)	Measurement
<p>In this phase learners focus on three-dimensional (3-D) objects, two dimensional (2-D) shapes, position and directions.</p> <p>Learners explore properties of 3-D objects and 2-D shapes by sorting, classifying, describing and naming them.</p> <p>Learners draw shapes and build with objects.</p> <p>Learners recognise and describe shapes and objects in their environment that resemble mathematical objects and shapes.</p> <p>Learners describe the position of objects, themselves and others using the appropriate vocabulary.</p> <p>Learners follow and give directions.</p>	<p>In this phase the learners' concept of measurement is developed by working practically with different concrete objects and shapes, learning the properties of length, capacity, mass, area and time.</p> <p>Learners measure the properties of shapes and objects using informal units where appropriate, such as hands, paces, containers, etc.</p> <p>Learners compare different quantities using comparative words such as taller/shorter, heavier/lighter etc.</p> <p>Learners are introduced to standard units such as grams, kilograms; millilitres, litres; centimetres, metres.</p> <p>Activities related to time should be structured with the awareness that learners' understanding of the passing of time should be developed before they read about time.</p>
Data Handling	
<p>In this phase, learners work with:</p> <p>Sorting, representing and describing the sorted collection are useful skills for learners to develop early on in schooling. The process also develops the skills learners will use when doing the data handling cycle.</p> <p>Learners can be given collections of objects and asked to sort them. For example, give groups of the same kinds of counters and ask learners to sort them into colour, give collections of different kinds of counters such as bread tags, peach pips, matches, bottles tops and ask learners to sort them into groups.</p> <p>Learners then draw a picture of the groups that they have made. In this way learners record what they have done. They answer questions in groups. Once learners have experienced the whole data cycle, they can focus on analysing representations that are given to them. It is recommended that in Term 4 learners analyse (answer questions) on at least 2 pictographs.</p>	

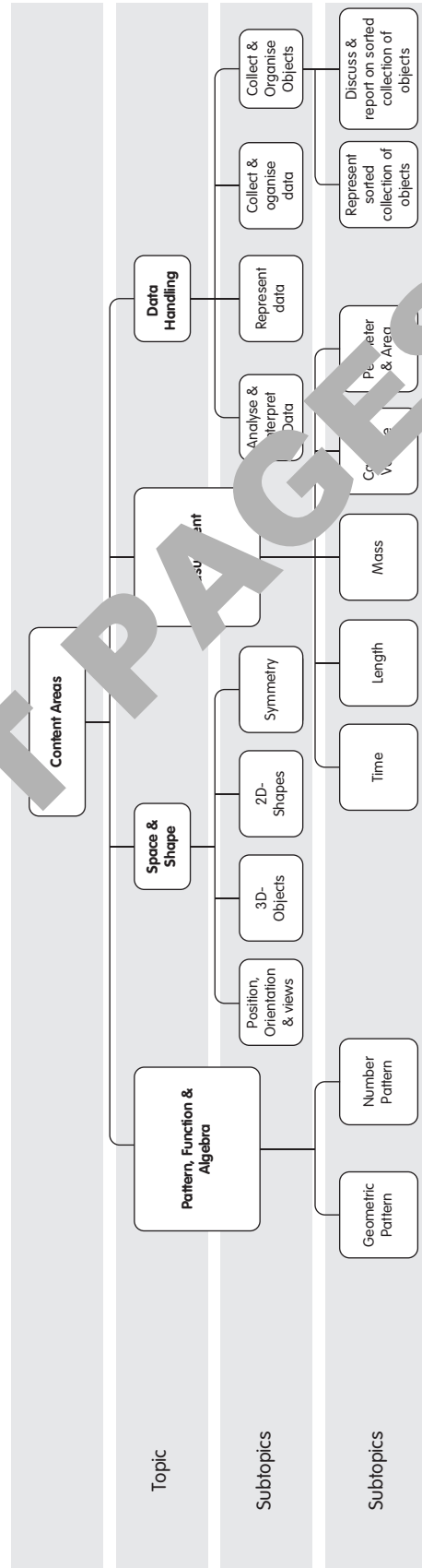
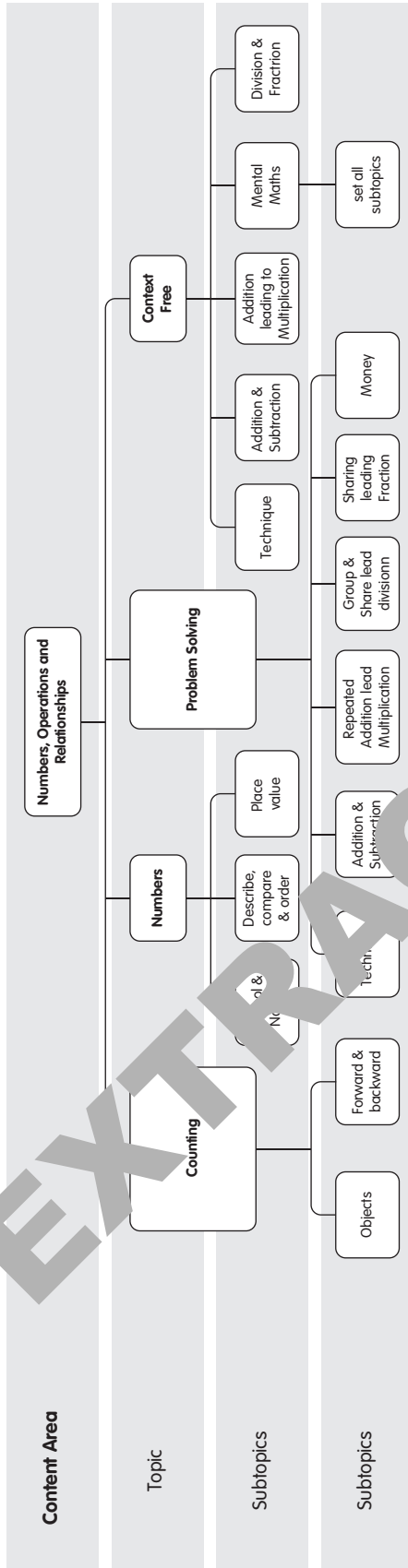
Recommended Number of Lessons per Content Area

Content area	Topic	Number of lessons				
		Term 1	Term 2	Term 3	Term 4	Total
Numbers, operations and relationships	All topics of Numbers, operations and relationships	24	25	24	26	99
Patterns, functions and algebra	Number patterns	3	3	3	3	12
	Geometric patterns	1	1	1	1	4
Space and shape (Geometry)	2D shapes		3		3	6
	3D shapes	3		2		6
	Position, orientation and views		2	1		3
	Symmetry		1			2
Measurement	Time	3	1	3	1	8
	Length	3			1	4
	Mass				1	4
	Capacity/Volume			3	1	4
Data handling	Whole data cycle	3		3		6
	Sections of data cycle		1		1	2
Lessons		40	40	40	40	160

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Content and Concepts Mapping





Let's see what you know

Term 1

Term 1: Building strong maths foundations!

LB page 2

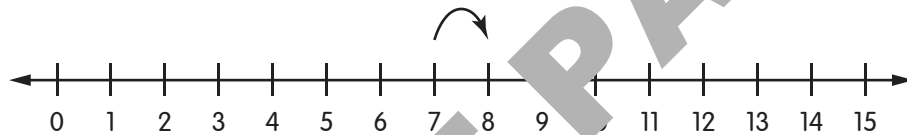
Topic: Counting

1. **One more than:** Count forward, 1 jump from the starting number.

a. Starting at 3, jump 1 time, then you are at 4.



b. Starting at 7, jump 1 time, then you are at 8.



c. Starting at 11, jump 1 time, then you are at 12.

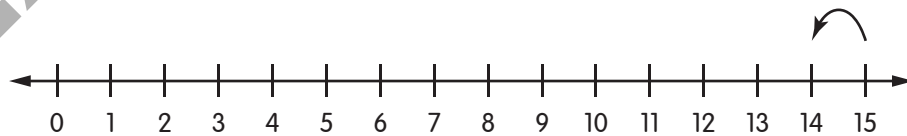


d. Starting at 13, jump 1 time, then you are at 14.

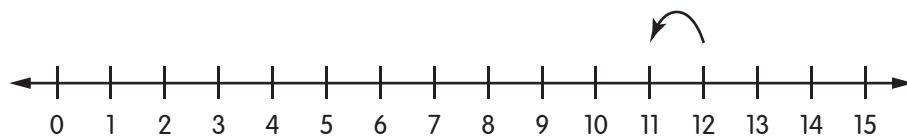


2. **One less than:** Count 1 unit backwards on the number line.

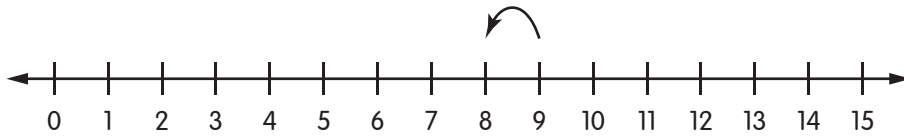
a. Starting at 15, jump 1 time, then you are at 14.



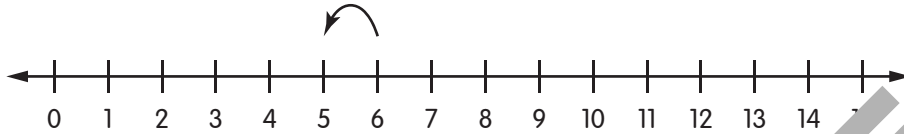
b. Starting at 12, jump 1 time, then you are at 11.



c. Starting at 9, jump 1 time, then you are at 8.

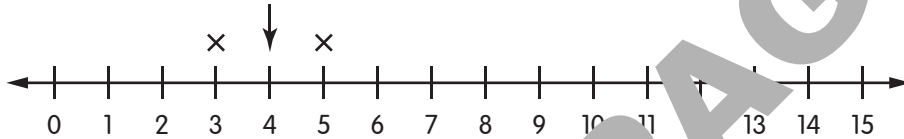


d. Starting at 6, jump 1 time, then you are at 5.

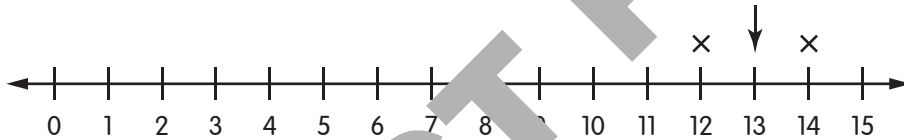


3. What comes between (mark start and end numbers)

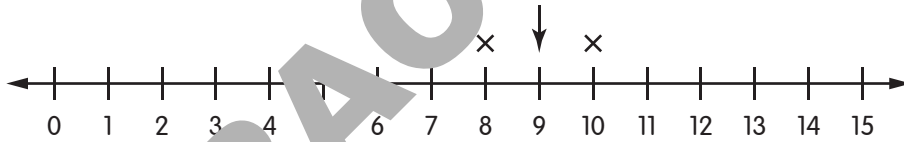
a. 4



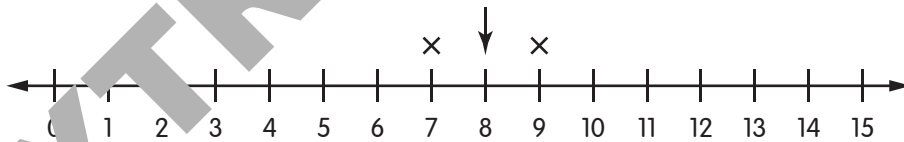
b. 13



c. 9



d. 8



Topic: Number symbols and number names

4. a. sixteen b. thirteen c. seventeen d. nineteen e. eighteen

Topic: describe, compare and order numbers

5. a. 1; 3; 5; 6; 9; 10; 11; 14 b. 15; 13; 11; 10; 4; 3; 2

Topic: Calculations

6. Complete by add and subtract.

- | | | |
|-----------------|-----------------|-----------------|
| a. $5 + 5 = 10$ | b. $5 + 3 = 8$ | c. $5 + 2 = 7$ |
| d. $7 - 5 = 2$ | e. $7 - 3 = 4$ | f. $7 - 1 = 6$ |
| g. $6 + 4 = 10$ | h. $6 + 3 = 9$ | i. $6 + 2 = 8$ |
| j. $10 - 7 = 3$ | k. $10 - 9 = 1$ | l. $10 - 2 = 8$ |

Let's begin the counting journey

Topic: Counting

LB page 4

Learning objectives

- Count forwards and backwards in 1s from any number between 1 and 60.
- Describe the counting sequence.
- Count forwards and backwards in 10s, 5s and 2s from any multiple of 10, 5, 2 between 0 and 100.

Introduction	Example
<p>Count forwards and backwards in 1s from any number to 60.</p> <p>Have a variety of concrete counting objects that learners can use to count.</p> <p>Use cut out numbers for learners to say numbers out loud.</p> <p>Number song: Sing a number song that counts from 0 to 20 to engage learners and prepare them for the lesson.</p>	<p>One, two, three ...</p> <p>Use music and rhythm to create a counting song where learners sing along and clap to the numbers. E.g. clap once for 1, twice for 2 etc.</p> <p>Ask learners the number of feet, eyes, toes, ears they have and they should count them.</p>
Materials	New words
<p>Counting blocks, flashcards, number charts, counters, number boards, paper cut-outs, number line, 100-chart, any objects learners can use to count.</p>	<p>Example: learn about something new</p> <p>Count/Counting: saying numbers to find out how many there are</p> <p>Smallest: the least</p> <p>Greatest: the biggest</p> <p>Plus (+): means adding numbers/groups together to find the total.</p> <p>Minus (-): means taking away some to find out how many are left.</p>

Teaching guidelines	
<ul style="list-style-type: none"> • Step-by-step instructions: • Give learners different sets of different counting objects and ask them to count. • Learners work in pairs to individually count the objects and then reveal answers to each other • Modelling: Demonstrate counting a set of objects, use physical manipulatives so learners can associate 1 object with number 1, 2 objects with number 2 etc. • Ask learners the following questions: • How can counting help us in our everyday lives? • What strategies can we use to make sure we count all the objects without missing any? • Can you think of a time when you used to count to help you solve a problem? • How does counting on help you add numbers? • Ask them: • How many did you count? • Let the pair of learners check if they counted and got the same amount (Did you get the same number?) If no, invite a third learner to count. • Who got the same number as the third learner? • To the one who got a wrong answer – Recount. • Ask different pairs to state whether they have smaller, greater, or equal to other groups. • Then, show learners cards with number symbols 1 to 20. • Show each card. The learner repeats the number symbol aloud. 	<ul style="list-style-type: none"> • After the class discussion, pair learners to do the following activity. • Provide each pair of learners with a set of counting objects (blocks, beads). • Call out a number and have learners count out the corresponding number of objects. • Learners then find and hold up the card that shows the correct number symbol. • Whole class activity: • Line up ten learners with number cards in sequence starting from any number of your choice. • Ask learners to describe the relationship between two consecutive learner numbers. Introduce the concept of more/less and by how many. • Lastly introduce group counting like from 2, 4, 6 and 5, 10 15, using fingers. • Learners can count on a number line or count backwards. • Model how to count on and backwards. Give an example of a number line example. • Complete by counting forwards: $12 + 2$ • Learners can use number lines or number charts to count backwards and forwards. • Let each learner describe their number. • Teaching tips: Pair work • Let learners count aloud and repeat numbers to show understanding. • Group work on comparing numbers that they would have counted.

Answers to Textbook Activities

Activity 1: LB page 5

Counting in 2s, 5s, and 10s

1. a. 23; 24; 25; 26; 27; 28; 29; 30; 31; 32; 33
- b. 50; 51; 52; 53; 54; 55; 56; 57; 58; 59
- c. 40; 38; 36; 34; 32; 30; 28; 26; 24; 22; 20
- d. 15; 20; 25; 30; 35; 40; 45; 50; 55; 60
- e. 55; 50; 45; 40; 35; 30; 25; 20; 15; 10

Activity 2: LB page 6

1. 10; 12; 14; 16; 18; 20; 22; 24; 26; 28; 30
2. 50; 45; 40; 35; 30; 25; 20; 15; 10; 5; 0
3. 60; 70; 80; 90; 100
4. 100; 90; 80; 70; 60

Counting forwards and backwards

Activity 3: LB page 9

- | | |
|---------------------|-------------------|
| 1. a. $67 + 1 = 68$ | b. $67 - 1 = 6$ |
| c. $80 + 5 = 85$ | d. $80 - 5 = 75$ |
| e. $90 + 10 = 100$ | f. $90 - 10 = 80$ |

More than or less than

Activity 4: LB page 10

- | | |
|-----------------------|------------------------|
| 1. 14 is less than 28 | 2. 50 is more than 25 |
| 3. 40 is less than 80 | 4. 15 is less than 3 |
| 5. 9 is less than 45 | 6. 75 is more than 15 |
| 7. 30 is less than 60 | 8. 100 is more than 25 |

From start to finish

Activity 5: LB page 12

1. 10; 15; 20; 25; 30
2. 82; 80; 76; 74
3. 20; 30; 40; 50; 60; 70
4. 91; 84; 34; 32; 12; 6; 3

Intervention	Conclusion
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<p>Extension activity</p> <p>Independent practice:</p> <ul style="list-style-type: none"> Using base 10 blocks, learners count out 55. Ask them how they would count 51; 52; 53; 54; 55 (starting from 50). Ask the learners to arrange the groups from the smallest to the biggest. <p>Differentiation:</p> <ul style="list-style-type: none"> Give learners who are advanced objects to count beyond the number range practised. For learners who need more support: Provide visual aids or pair them with a friend during activities. Offer additional practice with smaller sets of numbers before expanding to the full range. 	<ul style="list-style-type: none"> By the end of this lesson learners will demonstrate an understanding of counting, using the count on strategy. Dividing objects into groups to count will enhance counting reliably
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Topic: Mental maths

Learning objectives

- Learners will develop number comparison and sequencing skills by:
- Ordering numbers from smallest to greatest.
- Identifying which numbers are more or less.
- Recognising numbers that come before, after, or between given numbers.
- Answering questions related to increasing or decreasing quantities and identifying relationships between numbers without counting objects.

Introduction	Example
<p>Introduce the concept of comparing and ordering numbers using familiar terms like "more" and "less". Engage learners with a story or visual scenario where they identify which group of objects has more or fewer items, leading to an understanding of terms such as "many", "fewer", "most", and "least".</p>	<p>Ordering Numbers: Present the numbers 4, 2, 5, and 1. Ask the learners to arrange them from smallest to greatest: 1, 2, 4, 5.</p> <p>Identifying More or Less: Show two numbers, such as 3 and 7. Ask "Which number is more? Which is less?" (Answer: 7 is more, 3 is less.)</p> <p>Recognizing Before and After: Use the number 6 and ask "What number comes before 6?" (Answer: 5) and "What number comes after 6?" (Answer: 7).</p> <p>Increasing or Decreasing Quantities: Present a scenario with two baskets: one with 8 apples and another with 3 apples. Ask, "How many more apples are in the first basket compared to the second?" (Answer: 5 more.)</p>
Materials	New word
<ul style="list-style-type: none"> • Number cards (1 to 10) • Number line (drawn on the board or printed) • Baskets or containers (for the apples scenario) • Counters or small objects for hands-on activities 	<p>Order: To arrange numbers or items according to their value.</p> <p>More: A term used to describe a greater quantity or value.</p> <p>Less: A term used to describe a smaller quantity or value.</p> <p>Before: A number that comes prior to another number in sequence.</p> <p>After: A number that comes following another number in sequence.</p>

Object counting

Topic: Count objects reliably

LB page 15

Learning objectives

- Give a reasonable estimate and check by counting out objects reliably.
- Count forwards and backwards in 10s, 5s and 2s from any multiple of 10, 5, 2.
- Encourage group counting.

Introduction	Example
<p>Count forwards and backwards in 10s, 5s and 2s from any multiple of 10, 5, 2.</p> <p>Grouping objects and guessing the total number.</p> <p>Scatter objects that are more than 10, for example 13.</p> <p>Ask learners to tell you how many objects there are without counting.</p> <p>Ask them how they arrive at that number.</p> <p>Tell them about the guessed number without exact counting is what we call estimation (emphasise that the guess should not just be random). It is what we call an educated guess.</p>	<p>Estimating and Counting Objects: Show a collection of 15 blocks. Ask the learners to estimate how many blocks there are before counting. After they make their estimates, have them count the blocks out loud to check their guesses.</p> <p>Counting Forwards and Backwards:</p> <p>Forwards in 10s: Start at 20 and count: 20, 30, 40, 50.</p> <p>Backwards in 5s: Start at 25 and count: 25, 20, 15, 10.</p> <p>Forwards in 5s: Start at 4 and count: 4, 6, 8, 10.</p> <p>Group Counting: Have learners form a circle and count together in groups. For example, one group counts in 10s, another in 5s, and another in 2s, reinforcing the rhythm and pattern of counting.</p>
Materials	New word
<ul style="list-style-type: none"> • Small objects (e.g. buttons, beads, cubes) • Counting blocks or similar manipulatives • Number cards • Small containers or jars • Large chart paper • Markers 	<p>Estimate – making an educated guess about the number of objects in a group.</p> <p>Exact – means something that is completely correct</p>
Teaching guidelines	Discussion:
<ul style="list-style-type: none"> • Divide the class into small groups of 5–6 learners. • Set up different stations around the classroom with various small objects (buttons, beads, cubes, etc.) in containers. • Provide each station with chart paper and markers • Each group visits a station, estimates the number of objects in the container, and writes their guess on the chart paper. • Groups then count the objects to check the accuracy of their estimates and record the actual number. • Learners should rotate stations. 	<p>Why did you choose that number? How did you come up with your guess?</p> <p>After all the groups have visited each station, bring the class together.</p> <p>Discuss which estimation strategies were used and which seemed to be the most effective.</p> <p>Highlight the importance of both estimating and counting accurately.</p> <p>Teaching tip: Common misconception to address: Estimation does not mean wild guessing; it is an educated guess based on what we see.</p> <p>Peer assessment: Learners will pair up and check each other's counting and problem-solving work.</p>

Answers to Textbook Activities	
Activity 1: LB page 16–17 1. Estimation: Any number that shows understanding. Between 35 and 45. Count: 40 apples. 2. Estimation: Any number that shows understanding. Between 40 and 60. Count: 53 bottle tops. 3. Estimation: Any number that shows understanding. Between 26 and 35. Count: 32 straws. 4. Estimation: Any number that shows understanding. Between 45 and 55. Count: 99 match sticks.	
Intervention	Conclusion
<p>Independent Practice:</p> <ul style="list-style-type: none"> Assessment to be practiced, practice for pairs, and group work. For learners who grasp the concepts quickly, provide a challenge by increasing the number of objects or introducing larger groupings, like tens. Incorporate a real-world connection by asking learners to estimate and count items they encounter daily, such as steps from the classroom to the playground. <p>Group work: Present incorrect estimates and have learners explain why they are unreasonable.</p> <p>Give learners/draw scattered objects. Then give them a wrong estimate and let learners explain why it is wrong.</p>	<ul style="list-style-type: none"> This lesson plan guides learners through the basics of estimation and accurate counting, using interactive and hands-on methods. It encourages children to have a good understanding of the magnitude of numbers rather than overly relying on mathematical procedures to arrive at an answer.

Topic: Number symbols and number names

LB page 18

Learning objectives

- Recognise, identify, and read number symbols from 1 to 100.
- Write number symbols and number names to 25.

Introduction	Example
<ul style="list-style-type: none"> • Learners will complete a matching worksheet where they connect number names (in words) to their corresponding numerical symbols. • Tell learners that numbers can be represented in two ways: as words (number names) and as symbols (digits). • Single-digit numbers (1–9) have unique names. • Double-digit numbers (10–99) are formed by combining tens and ones • Count forwards and backwards in 10s, 5s and 2s from any multiple of 10, 5, 2. 	<p>Recognising Number Symbols: Display a number chart showing numbers from 1 to 100. Ask learners to identify specific symbols (e.g., “What is the symbol for 15?”). Engage them by pointing out patterns (e.g., “What comes after 29?”).</p> <p>Writing Number Symbols and Names: Have learners practice writing numbers. Example: Number: 12 → Number Name: twelve Number: 25 → Number Name: twenty-five</p> <p>Interactive Activity: Create a matching game where learners match number symbols to their corresponding number names, helping reinforce their learning.</p>
Materials	Key word
<ul style="list-style-type: none"> • Number charts (1 to 100) • Worksheets for writing numbers and names • Flashcards with number symbols and names • Markers or pencils for writing practice 	<p>Number symbol: the written representation of a quantity (e.g. 1, 2, 3).</p> <p>Number Name: The word used to express a number (e.g., one, two, three).</p> <p>Recognise: To identify or become aware of something.</p> <p>Identify: To determine what something is.</p> <p>Write: To form letters or symbols on a surface to represent a quantity.</p>

EXTRACT PAGES

Teaching guidelines	
<ul style="list-style-type: none"> • Pair learners up and give each pair a set of number flashcards (0–20) and number name flashcards. • Learners work together to match the symbols with the correct names. • Provide each learner with a set of counting objects (blocks, beads). • Call out a number and have learners count out the corresponding number of objects. • Learners then find and hold up the card that shows the correct number symbol. • Follow this with the number name. For example, point to the number 11. Learners count 11 objects and find the number symbol and its name. • Whole class activity: Play a quick game of Number Whispers where learners whisper a number name to their neighbour, who then writes the corresponding symbol on a small whiteboard. • Ask learners: Why do you think it is important to know both numbers, names, and symbols? • Ask learners to work in pairs and represent the number 10 in different ways (number bonds) $9 + 1$; $8 + 2$; $7 + 3$ 	<ul style="list-style-type: none"> • Explain the difference between number names and symbols, pointing out examples on the chart. • Demonstrate how to read and write numbers 1–20, emphasising the unique names for each. • Introduce the concept of tens and ones for numbers 21–99, showing how they combine to form number names. • Highlight the number 100 and its name “one hundred”. • Common misconception to address: Some learners might think that all two-digit numbers have unique names (like eleven, twelve) rather than following the tens-and-one’s pattern. • Play a quick game of “stand up and sit down” where learners stand if the number name you say matches the number symbol you show, and remain seated if they do not match. • Example: Say “seven” and 7, then learners stand. • Ask learners to share one new thing they learned about number names and symbols.
Answers to Textbook Activities	
<p>Activity 1:</p> <p>The learners make cards and then play a game matching number names to their symbols.</p> <p>Instructions:</p> <p>Make 2 sets of cards all the same size (20 cards total) per group</p> <p>Set 1 – write a number symbol on each card (0–20)</p> <p>Set 2 – write a number name on each card (one to twenty)</p> <p>Cards are all shuffled, so that the numbers are all mixed up.</p> <p>When the teacher gives the signal, start the learners work together in their groups matching the number symbols to the number names.</p> <p>The first group to match all the number cards correctly wins the game.</p>	LB page 18
<p>Activity 2:</p> <p>Learners count aloud from 1 to 100, finding the number symbols on a table that has the number symbols in random order, while they are counting. The number symbols on the table start at 51.</p>	LB page 19
Intervention	Conclusion
<p>Independence practice:</p> <ul style="list-style-type: none"> • Assessment to be practised, practice for pairs, and group work. • For learners who finish early: Include higher numbers (up to 50) or introduce basic addition/subtraction problems, using the number symbols and names. • Create a personal “Number Name Dictionary” for numbers 1–20, where learners write the number symbol, its name, and draw a picture representing that quantity. 	<ul style="list-style-type: none"> • This lesson plan integrates describing, comparing, and ordering numbers into engaging activities that build on learners’ existing knowledge of number names and symbols. • The varied activities cater to different learning styles and provide multiple opportunities for practice and reinforcement.

All kinds of special numbers

Topic: Describe, compare and order numbers

LB page 20

Learning objectives

- Describe and order numbers from smallest to greatest up to 100.
- Describe and compare numbers to 25 – smaller than, greater than; – 1, 2, 3, or 4 more than, or 1, 2, 3, 4 less than; is equal to.
- Describe and order numbers from smallest to greatest and greatest to smallest.

Introduction	Example
<p>Number order relay:</p> <p>Divide class into teams.</p> <p>Each team receives a set of number cards.</p> <p>Teams race to order their numbers correctly.</p> <p>Count forwards and backwards in 10s, 5s and 2s from any multiple of 10, 5, 2.</p>	<p>Ordering Numbers: Present the numbers 8, 3, 12, and 5. Ask learners to arrange them from smallest to greatest: 3, 5, 8, 12.</p> <p>Comparing Numbers: Show two numbers, such as 17 and 22. Ask, "Which number is greater?" (Answer: 22) and "How much more is 22 than 17?" (Answer: 5). Then, ask questions like, "What is 2 less than 25?" (Answer: 23).</p> <p>Describing Relationships: Present the numbers 10, 12, and 14, and ask learners to describe their relationships. For example, "12 is greater than 10," "14 is 2 more than 12," and "10 is smaller than 14."</p>
Materials	Key words
<ul style="list-style-type: none"> • Number line (drawn on the board or printed) • Number cards (1 to 100) • Worksheets for comparing and ordering numbers • Counters or manipulatives for hands-on activities 	<p>Order: To arrange numbers in a specific sequence based on value.</p> <p>Compare: To examine the differences or similarities between numbers.</p> <p>Smaller than: A term used to describe a number that has a lesser value compared to another number.</p> <p>Greater than: A term used to describe a number that has a higher value compared to another number.</p> <p>Equal to: A term used to indicate that two numbers have the same value.</p>

Teaching guidelines	
<p>Explain that instead of comparing just two numbers, we are going to be comparing more than two numbers at a time and putting them in order.</p> <p>Model how to re-order 3 such numbers for example, 7, 4 and 11.</p> <p>Number description challenge</p> <p>Display a number (e.g. 63)</p> <p>In pairs, learners take turns to describe the number in different ways (it is made up of 6 and 3); it is more than 60.</p> <p>Write two numbers on the board (e.g. 28 and 35).</p> <p>Class shares their descriptions (If the number is greater less than, or equal to, and by how many).</p> <p>Guide learners in comparing the numbers, using the words smaller than, greater than.</p>	<p>Whole class activity: Let the learners come to the 100 charts. Let 1 learner pick a number and ask the following:</p> <p>Name any three numbers less than, then greater than.</p> <p>Let the learners arrange the numbers from smallest to biggest or biggest to smallest.</p> <p>Repeat with different number pairs.</p> <p>Number line:</p> <p>Give each learner a card with a number between 1 and 25.</p> <p>Ask learners to line up in order from least to greatest.</p> <p>Discuss strategies used in ordering.</p>
Answers to Textbook Activities	
Greater than, smaller than or equal to	
<p>Activity 1:</p> <ol style="list-style-type: none"> 9 is 1 less than 10 13 is 2 more than 11 18 is 3 less than 21 19 is 4 more than 15 23 is 3 more than 20 21 is 4 less than 25 	LB page 21
<p>Activity 2:</p> <ol style="list-style-type: none"> 3; 4; 6; 7; 8; 12; 13; 14; 16; 19. 23; 21; 19; 14; 12; 7 1; 6; 11; 15; 17; 22 	LB page 22
Intervention	Conclusion
<p>Independence practice, assignment to be practised, practice for pairs, and group work.</p> <p>Differentiation.</p> <p>For struggling learners: Provide number lines or hundred charts for reference.</p> <p>For advanced learners: Include three-digit numbers in activities</p>	<ul style="list-style-type: none"> Comparing and ordering numbers is an essential skill for second graders, as it helps them develop their number sense, logical thinking, and problem-solving abilities. Later the learners can compare quantities and sizes of objects and arrange items in a sequence or pattern.

Place value champions

Topic: Place value

LB page 23

Learning objectives

- Decompose two-digit numbers to 15 into multiples of tens and ones.
- Identify and state the value of each digit in 2-digit numbers.
- Learners will be able to identify, represent, and manipulate numbers up to 25, using place value concepts of tens and ones.

Introduction	Example
<p>Review place value concepts (tens and ones) Ask learners what they understand about the number 11.</p> <p>Demonstrate: how to describe a number, using place value language.</p> <p>Show learners how 11 is made up of 10 and 1</p> <p>Show the number 37 on the board and ask learners to think about how many tens and ones are in this number.</p> <p>Introduce the terms ones and tens to represent the place value positions.</p> <p>Model how to identify the value of digits in a number by using place value charts and manipulatives.</p>	<p>Decomposing Numbers: For the number 14, show it as 1 ten and 4 ones.</p> <p>Identifying Digit Values: In 23, the digit 2 is worth 20 (tens place) and the digit 3 is worth 3 (ones place).</p> <p>Manipulating Numbers: Use base ten blocks to represent the number 14 with 1 ten block and 4 one blocks.</p>
Materials	New word
<ul style="list-style-type: none"> • Base ten blocks • Place value charts • Worksheets for practice 	<p>Place Value: The value of a digit based on its position.</p> <p>Decompose: To break a number into its parts.</p> <p>Digit: A single numeral (0–9).</p> <p>Tens: The value represented by a digit in the tens place.</p> <p>Ones: The value represented by a digit in the ones place.</p>

Teaching guidelines

- **Ask a learner** to produce a two-digit number. Write the number, but purposely put the digit that should be in the ones place in the tens place and the digit that should be in the tens place in the ones place.
 - **Ask** the class if the number that was said is what you wrote (learners should be able to see that the ones and tens are not matching).
- Important: do not use numbers like 11, 22, 33, 44.
- **Emphasise** how swapping digits change the value of the number.
 - **Start with a quick place value chant:** Tens on the left, ones on the right, that is how we read numbers, **day and night**.
 - **Call out statements** like Stand up if the number 63 has 6 tens.
 - Learners stand or remain seated based on whether the statement is true or false.
 - **Model how** to compare two numbers, using place value understanding.
 - **Explain** the concept of ordering numbers.
- Divide learners into pairs**
- Give each pair a set of base-ten blocks and a place value chart.
 - Call out a two-digit number.
- Learners build the number with blocks and record it on their chart.
 - Partners take turns saying the number in terms of tens and ones.
 - For example, "42 is 4 tens and 2 ones."
 - **Show** learners how to work out $21 + 13$ using: **3 tens and 4 ones = 34**
 - **Ask** learners to work out $19 - 7$ using tens and ones.
 - **$19 - 7 = 1$ ten and $(9 - 7)$ ones = 12 and 2 ones = 12**
 - Learners describe their number to a partner in terms of tens and ones.

Independent practice:

- Draw base-ten blocks to represent given numbers.

Teaching tips:

- Consistently use terms like tens and ones; groups of 10.

Decomposition practice:

- Regularly break numbers into tens and ones. Use number bonds to show different ways to make numbers.
- Create and use place value charts consistently. Implement number lines marked in tens. Use ten-frames to show groupings.
- **Teacher tip:** Take note of learners not understanding that numbers in the Tens column are worth more than numbers in the Units column.

Answers to Textbook Activities

Activity: Place value champions

LB page 24

- $10 + 5 = 15$ (oranges)
 - $10 + 2 = 12$ (apples)
 - $4 + 10 = 14$ (balls)
 - $15 + 5 = 20$ (balloons)
- 13 = 1 ten and 3 ones
 - 19 = 1 ten and 9 ones
 - 14 = 1 ten and 4 ones
 - 8 = 0 tens and 8 ones
 - 21 = 2 tens and 1 ones
 - 16 = 1 ten and 6 ones
 - 23 = 2 tens and 3 ones
 - 25 = 2 tens and 5 ones
- 13 apples = 1 tens
- 16 balloons = 1 tens and 6 ones
- 23 cars = 2 tens and 3 ones

Intervention	Conclusion
<ul style="list-style-type: none">• Independence practice, assessment to be practised, practice for pairs, and group work.• For advanced learners, introduce the concept of hundreds, or challenge them to find different ways to represent the same number. For example, 42 as 4 tens and 2 ones, or 3 tens and 12 ones.• Learners who struggle with understanding tens and ones, it is important to use a variety of strategies that cater to different learning styles and provide multiple entry points to the concept. Here are some effective strategies:• Use concrete manipulatives: Use base ten blocks extensively.• Employ bundling sticks (popsicle sticks bundled in groups of 10).• Utilise counting beans or other small objects for grouping.• Use playing cards to build two-digit numbers.	<ul style="list-style-type: none">• This lesson plan integrates describing, comparing, and ordering numbers into engaging activities that build on learners' existing knowledge of number names and symbols.• The varied activities cater to different learning styles and provide multiple opportunities for practice and reinforcement.

EXTRACT PAGES

Topic: Solve problems

Learning objectives

- Solve problems in context and explain solutions to problems.
- Addition and subtraction skills to be enhanced through problem solving.
- Repeated addition leading to multiplication.
- Solve money problems involving totals and change.

Introduction	Example
<p>Count forwards and backwards in 10s, 5s and 2s from any multiple of 10, 5, 2.</p> <p>Example: Write the following on the board and ask learners to tell a story about the number sentence.</p> <p>$5 + 3$</p> <p>$12 - 5$</p> <p>Give the learners the story below to discuss in groups.</p> <p>There are 5 oranges on the plate and 8 in the plastic bag. How many oranges are there altogether? Granny comes in and takes 3 oranges to eat. How many oranges remain?</p>	<p>Contextual Problem: Present a word problem: "Sally has 5 apples, and she buys 3 more. How many apples does she have now?" Guide learners through addition: $5 + 3 = 8$.</p> <p>Subtraction Problem: Ask, "if she gives away 2 apples, how many does she have left?" (Answer: $8 - 2 = 6$).</p> <p>Repeated Addition: Show that if Sally had 4 bags with 3 apples each, she could calculate the total by repeated addition: $3 + 3 + 3 + 3 = 12$ or by multiplication: $4 \times 3 = 12$.</p> <p>Money Problem: Present a scenario: "If a toy costs R15 and you give the cashier R20, how much change will you receive?" (Answer: $20 - 15 = 5$).</p>
Materials	New word
<ul style="list-style-type: none"> • Word problem worksheets • Counters or manipulatives for visualising addition and subtraction • Play money for solving money-related problems 	<p>Problem Solving: The process of finding a solution to a question or challenge.</p> <p>Addition: Combining numbers to get a total.</p> <p>Subtraction: Taking one number away from another.</p> <p>Multiplication: A mathematical operation that is repeated addition.</p> <p>Change: The amount of money returned after a purchase</p>

Teaching guidelines	
<p>Start by asking learners to summarise the story in the introduction in their own words and state what they understand about the story.</p> <p>Pair the learners and tell them to write a number sum for the story above by showing:</p> <ul style="list-style-type: none"> Total number of oranges that are on the plate and in the plastic bag: $5 + 8 = 13$ 2. How many oranges remain after granny takes 3: $13 - 3 = 10$ <p>Then: take learners through the steps of problem solving which are:</p> <ul style="list-style-type: none"> Read the problem statement and try to understand it. Underline the common Maths words like more, less or altogether Draw a picture to show calculations. Write a number sentence and solve it. Check if the answer makes sense. Write a number 27 on the board. Model how to solve this, using base-ten blocks and a place value chart. Emphasise that 2 base 10 represent 2 tens, and 7 loose blocks represent 7 ones. 	<p>Show how this makes 27 blocks in total.</p> <p>Repeat with another example, involving learners in the process.</p> <p>Activity 1: Ask learners to solve the piggy bank problem below.</p> <p>Divide class into small group to solve the problem.</p> <p>Groups use manipulatives to solve the problem and explain their reasoning.</p> <p>Thabo was saving R2 rand every day for 10 days. His sister opened the piggy bank and took two R2 coins and a R1 coin.</p> <p>a) How much did Thabo save?</p> <p>Answer: $R2 + R2 + R2 + R2 + R2 + R2 + R2 + R2 + R2 + R2 = R20$</p> <p>b) How much did he have left after his sister took the three coins?</p> <p>Answer: His sister took $R2 + R2 + R1 = R5$.</p> <p>Thabo had $R20 - R5 = R15$ (Learners may use a number chart/number chart.)</p> <p>Rotate between groups, offering guidance and asking probing questions.</p> <p>Activity 2: In pairs, learners create their own word problem involving tens and ones.</p> <p>They swap problems with another pair and solve each other's problems.</p> <p>Encourage the use of drawings or base-ten block representations in their solutions.</p> <p>Teacher tip: Ensure that learners use R and c for rands and cents.</p>
Answers to Textbook Activities	
<p>Activity 1: Real-life puzzles</p> <ol style="list-style-type: none"> Alma had 14 toy robots; Rasheed had 10 toy robots After playing together <ol style="list-style-type: none"> Alma had 7 robots (half of 14). Rasheed had 20 robots (double 10). Alma then had 10 robots. $(7 + 3)$ <ol style="list-style-type: none"> Alma had 8 robots left. $(10 - 2)$. Rasheed had 28 robots. $(20 + 2 + 2 + 2 + 2)$ 2 from Alma, and 2 each from 3 other friends) 	<p>LB page 27</p>

Intervention	Conclusion
<p>Independence practice, assessment to be practised, practice for pairs, and group work.</p> <p>The school library has 3 boxes of 10 books each and 6 loose books. How many books are there in total?</p> <p>For advanced learners, introduce three-digit numbers in context.</p> <p>For example: The school has 3 grade levels, with 10 classes in each grade, and 5 extra learners. How many learners are there in total?</p> <p>On a farm there were some hens and sheep.</p> <p>Altogether there were 8 heads and 22 feet. How many hens were there?</p>	<p>This lesson plan emphasises problem solving in context, which helps learners see the relevance of place value in everyday situations. It incorporates multiple representations (concrete, pictorial, and abstract) and provides opportunities for learners to create and solve their own problems, deepening their understanding of tens and ones linking to place value, ordering, comparing addition and subtraction.</p>

EXTRACT PAGES

Repeated addition

Topic: Solve problems

LB page 28

Learning objectives

- Repeated addition leading to multiplication.
- Practise number bonds to 10.
- Add the same number repeatedly to 20.
- Multiply the numbers 1 to 10 by 2.

Introduction	Example
<p>Count forwards and backwards in 10s, 5s and 2s from any multiple of 10, 5, 2.</p> <p>Give the class the sum below and guide learners on how they should work it out:</p> <p>Zane has 2 boxes, and each box contains 3 cupcakes. How many cupcakes are there in total?</p> <p>Let the learners write the number sentence, and then give you the total.</p> <p>Ask learners the total: 6 cupcakes.</p>	<p>Repeated Addition: Show that $3 + 3 + 3 = 9$ can be represented as $3 \times 3 = 9$</p> <p>Number Bonds to 10: Produce pairs that add up to 10 (e.g. $7 + 3$, $6 + 4$).</p> <p>Adding to 20: For example, add 5 repeatedly: 5, 10, 15, 20.</p> <p>Multiplication: Calculate 2×12 through 2×10 (e.g. 2, 4, 6, 8, 10, 12, 14, 16, 18, 20).</p>
Materials	Key words
<ul style="list-style-type: none">• Number bond worksheets• Counters for repeated addition• Multiplication charts	<p>Repeated Addition: Adding the same number several times.</p> <p>Number Bonds: Pairs of numbers that add up to a specific total (e.g., 10).</p> <p>Multiply: To add a number to itself a certain number of times.</p>

Teaching guidelines

Using the example, ask learners to make groups of two from the cupcakes.



Ask learners to write an addition sum for the cupcakes. Some will write

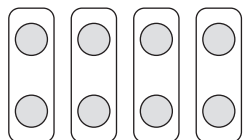
Answer: $3 + 3 = 6$; others **Answer 2:** $2 + 2 + 2 = 6$.

Guide the learners by asking the question: How many groups of 2 cupcakes do you see?

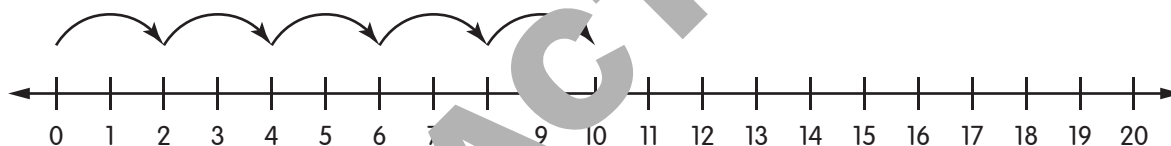
Ask learners which number is repeated when adding. Relate this to the meaning of groups. How many groups of the same number we are adding together.

Answer 3: Explain to the learners that 3 groups of 2 is the same as $2 + 2 + 2 = 6$ or $3 \times 2 = 6$.

Show learners the following diagram and ask them to work with a friend. They should work out how many groups of two they see. **5 groups of 2 = 2 + 2 + 2 + 2 + 2**



Ask learners to come to the board and show how 5 groups of 2 can be presented on a number line.



Explain to the learners how repeated addition can be presented on a number line by showing that the number of hops/jumps is equal to the number of groups.

5 groups of 2 = 2 + 2 + 2 + 2 + 2 = 5 × 2

Connect to multiplication and explain, "**Multiplication** is another way to add equal groups.

Display/Draw on the board:



1. Ask learners to verbalise what they see in the picture.
2. What are we counting in? In 5s.

Answers to Textbook Activities

Activity 2:

LB pages 29–30

1. a. 6 coins
b. $2 + 2 + 2 = 6$
c. $3 \times 2 = 2 + 2 + 2 = 6$
d. $2 + 2 + 2 = 3 \times 2 = 6$
2. a. 9 cats
b. $3 + 3 + 3 = 9$
c. $3 + 3 + 3 = 3 \times 3 = 9$
d. $3 \times 3 = 3 + 3 + 3 = 9$
3. a. $2 \times 2 = 4$
b. $4 \times 2 = 8$
c. $5 \times 2 = 10$
d. $3 \times 2 = 6$
4. a. $R10 + R8 + R5 = R23$
b. $R12 + R7 + R4 = R23$

Intervention

Independence practice, assessment to be practised, practice for pairs, and group work.

Conclusion

Repeated addition is to add equal groups or the same number over and over.

Repeated addition is a precursor to teaching multiplication. It is an easier way for children to develop from addition to multiplication understanding.

Topic: Solve problems

LB page 31

Learning Objectives

- Share items equally among groups.
- Calculate change after purchases using subtraction.
- Reinforce division and subtraction skills in practical contexts.

Introduction	Example
<p>Explain that dividing items into equal parts helps us share fairly. Use simple stories (e.g. sharing stickers among friends) to make these concepts relatable. Introduce change calculations by discussing everyday purchases, emphasising subtraction.</p>	<p>Division in Sharing: If 8 stickers are shared among 4 friends, how many does each get? (Answer: 2)</p> <p>Calculating Change: If you buy a book for R8 with R20, how much will you get back? (Answer: R12)</p>
Materials	New word
<ul style="list-style-type: none"> • Counters for division activities • Play money for hands-on practice with change calculations 	<p>Divide: To split equally among groups.</p> <p>Equal Parts: Same amount in each group.</p> <p>Change: Money returned after a purchase.</p>
Teaching guidelines	
<p>For Division: Encourage learners to use counters for equal distribution. Emphasize checking that each group has the same number of items.</p> <p>For Subtraction: Use play money to visualise change, and practice subtracting mentally.</p> <p>Addressing Misconceptions</p> <p>Misconception 1: Some learners may count instead of dividing. Encourage them to count items per group.</p> <p>Misconception 2: When calculating change, learners might add prices instead of subtracting from the total paid. Reinforce subtracting the item price from the total amount.</p>	
Answers to Textbook Activities	
<p>Activity 3: LB page 32</p> <ol style="list-style-type: none"> $8 \div 4 = 2$ stickers each $15 \div 3 = 5$ crayons in each box $20 \div 5 = 4$ flowers each $30 \div 10 = 3$ items each 	<p>Activity 4: LB page 34</p> <ol style="list-style-type: none"> <ol style="list-style-type: none"> $R20 - R8 = R12$ change $R20 - R6 = R14$ change $R20 - R9 = R11$ change $R3 + R4 = R7$, $R20 - R7 = R13$ change
Interactions	Conclusion
<p>For learners needing support, use hands-on materials (counters and play money) to strengthen understanding of equal groups and change.</p>	<p>Review key points, reinforcing that division helps us share equally, and subtraction helps us determine change after purchases.</p>

Topic: Calculations

LB page 35

Learning Objective

- Reinforce addition, subtraction, and multiplication through activities focused on bonds, counting, and repeated addition.

Introduction	Example
Introduce calculations by explaining the importance of number bonds and repeated addition. Describe how these skills lead into understanding multiplication.	Show examples of bonds (e.g. $8 + 2 = 10$), and repeated addition leading to multiplication (e.g. $2 + 2 + 2 = 6$ can also be written as $2 \times 3 = 6$)
Materials	New word
<ul style="list-style-type: none"> • Scrap paper or index cards • Markers for writing numbers on cards 	<p>Bond: A pair of numbers that add up to a certain total.</p> <p>Repeated Addition: Adding the same number multiple times, often leading to multiplication.</p>
Teaching guidelines	
<p>For Number Bonds: Use memory games to reinforce bonds of 10. Encourage learners to recall pairs quickly to build fluency.</p> <p>For Repeated Addition: Begin with physical objects (like counters) to visualize adding the same number and gradually introduce multiplication as a faster way of adding.</p> <p>Addressing Misconceptions</p> <p>Misconception 1: Learners may mix up addition and multiplication symbols. Emphasize that multiplication simplifies repeated addition.</p> <p>Misconception 2: For number bonds, remind learners that bonds are fixed pairs adding to the same total, helping with rapid recall.</p>	

EXTRACT PAGES

Answers to Textbook Activities

Answers to Textbook Activities	
<p>Activity 1: LB pages 35–36 (Number bonds of 10)</p> <p>Activity 2: LB page 37</p> <p>1. a. $13 + 1 = 14$ b. $3 + 9 = 12$ c. $15 - 4 = 11$ d. $7 + 2 = 9$ e. $11 - 0 = 11$ f. $12 - 3 = 9$</p> <p>2. a. $13 - 2 = 11$ b. $18 + 2 = 20$ b. $20 - 4 = 16$ d. $3 + 11 = 14$</p>	<p>Activity 3: LB pages 38–39</p> <p>1. 2; 4; 6; 8; 10; 12; 14; 16; 18; 20</p> <p>2. a. $2 + 2 = 4$, so $2 \times 2 = 4$ b. $2 + 2 + 2 = 6$, so $2 \times 3 = 6$ c. $2 + 2 + 2 + 2 = 8$, so $2 \times 4 = 8$ d. $2 + 2 + 2 + 2 + 2 = 10$, so $2 \times 5 = 10$</p> <p>3. a. $5 + 5 = 10$ b. $5 + 5 + 5 = 15$ c. $5 + 5 + 5 + 5 = 20$ d. $5 + 5 + 5 + 5 + 5 = 25$</p> <p>4. a. $3 + 3 = 6$ b. $3 + 3 + 3 = 9$ c. $3 + 3 + 3 + 3 + 3 = 15$ d. $4 + 4 = 8$ e. $4 + 4 + 4 = 12$ f. $4 + 4 + 4 + 4 = 16$</p> <p>5. a. $10 + 10 = 20$ so $10 \times 2 = 20$ b. $10 + 10 + 10 = 30$ so $10 \times 3 = 30$ c. $10 + 10 + 10 + 10 = 40$ so $10 \times 4 = 40$</p>
Intervention	Conclusion
For learners needing support, reinforce repeated addition with hands-on materials and demonstrate number bonds visually.	Summarize the importance of recognizing bonds and the efficiency of using multiplication for repeated addition.

Topic: Time

LB page 40

Learning objectives

- Know sequence of months of the year a on calendar.
- Tell 12-hour time in hours, half hours on analogue clock.
- Use clocks to calculate the length of time in hours and half hours.
- Use a calendar to answer questions.
- Identify seasons and events linked to the calendar year.

Introduction	Example
<p>Use a song, like Hickory Dickory Dock, or a story about time, such as Clocks and More Clocks</p> <p>Count forwards and backwards in 10s, 5s and 2s from any multiple of 10, 5, 2.</p> <p>Example activity: Ask learners to tell you about how they know what time it is, or what day of the week or month of the year.</p>	<p>Months of the Year</p> <ul style="list-style-type: none"> • Recite the months in order together as a class. <p>Telling Time</p> <ul style="list-style-type: none"> • Show 3:00 and 6:30 on a clock and ask, "What time is it?" <p>Calculating Time</p> <ul style="list-style-type: none"> • Starting from 10:00, ask, "What time will it be in 2 hours?" <p>Using a Calendar</p> <ul style="list-style-type: none"> • Show a calendar and ask, "What day is the 15th of this month?" <p>Seasons and Events</p> <ul style="list-style-type: none"> • Show each season and ask, "When does spring start?"
Materials	Key word
<p>Manipulative clock (could be made from a paper plate with a pin securing a long hand and a shorter hand in the middle, so that they can move the hands)</p> <p>Digital clock to show what the time is in digital format.</p> <p>Interactive display: Clock in digital and analogue format for learner use</p>	<p>Vocabulary: time, hours, minutes, hands, face, analogue clock, digital clock</p> <p>Terms: hours, minutes, duration, later</p> <p>These terms are listed and defined under glossary</p>
Teaching guidelines	
<p>Step-by-step instructions:</p> <ul style="list-style-type: none"> • Talk about the analogue clock structure and how it differs from the digital format. Discuss how each one works. • Compare times in analogue and digital. What is the same? What is the difference? • Practise telling the time and get learners to show the time in digital format. Repeat with analogue format. • Get learners to give a time and display on both clocks on the board. • Show learners how digital and analogue clocks work. Talk about how time changes on each type of clock. • Highlight hours and minutes on each clock. • Practise telling stories of time and have learners answer the questions. • Jessica puts cookies in the oven at 7:00 a.m. They need to cook for 18 minutes. What time should Jessica take the cookies out of the oven? 7.18 a.m. 	

- Thando’s watch says it is 2:00 p.m. She will go to dinner in 3 hours and 20 minutes. What time will she go to dinner? 5:20 p.m.
- Dad arrives home at 4:50 p.m. He left work 40 minutes ago. What time did Dad leave work? 4:10 p.m.
- Jack could not take his usual train because he woke up late. He took the next train at twenty past eight in the morning, which was 40 minutes later than his usual train. What time is his usual train? 7:40 a.m. When he got home, Jack slept for 3 hours. How many minutes did he sleep?

Answers to Textbook Activities

Activity 1: LB page 41

Use clocks to tell the time

Clocks show:

1. 3:00 and 3:30 – ballet ends at 3.30
2. 2:30 and 3:30
3. 2:30 and 5:00

Activity 2: LB page 42

1. 24 hours
2. 12 months
3. July

Calendar

Activity 3: LB pages 43–44

1. a) Tuesday b) 30 c) 16 June
2. a. Class to read the months of the year from the LB.
b. Class to say the months of the year from memory.
3. October
4. September
5. January, February, March, April, May, June, July, August, September, October, November, December.
6. Learner’s own answers.
7. January
8. December

Intervention

- **Categorise objects according to size:** long, longer and longest, shorter and shortest. Ask learners to explain why they categorised them as such.
- Ask learners what other standard units of measure they know about.
- Complete learner activities in the learner notes.
- **Teaching tip:** Encourage learners to work in groups to complete activities and use the available technology in the class to deduce answers.

Conclusion

- Count the number of hours in a day. Look at a calendar and identify the date, month day of the week. Talk about how every 24 hours a new day starts. Spend some time examining the months of the year and their days.
- Identify days before after between, months before, after and between.
- Discuss when seasons and events occur in the various months.
- Complete learner activities in the learner notes.

Longer and shorter

Topic: Length

LB page 45

Learning objectives

- Estimate, measure, compare, order, long, longer, longest, and short, shorter, shortest.
- Record lengths using non-standardised (informal) measuring.
- Describe lengths using hand spans, paces, metre-stick, metre-lengths of string

Introduction	Example
<p>In this lesson,</p> <ul style="list-style-type: none"> • learners will explore measuring and comparing lengths using informal methods. • They will estimate, measure, and describe objects as long, longer, longest, or short, shorter, shortest. • Using items like hand spans, paces, metre sticks, and lengths of string, learners will also record lengths to better understand size and distance comparisons. 	<p>Comparing Lengths: Place a pencil, a book, and a string on a table. Ask learners to estimate which item is longest and shortest, then measure with hand spans or paces to confirm.</p> <p>Using Informal Units: Use hand spans to measure a table's length. Record the measurements and compare them by length (e.g., the table is 5 hand spans long).</p> <p>Recording Estimated and Measurements: Learners estimate the length of a book using hand spans, then measure and record it.</p>
Materials	New word
<ul style="list-style-type: none"> • Various measurement tools such as paper clips, rulers, strips of paper, glue sticks, pencils, measuring tapes. • Erasable whiteboards and markers or pencils and paper. • Rulers 	<p>Vocabulary: long, longer, longest, short, shorter, shortest, measure, estimate, centimetres, millimetres</p> <p>Terms: units, measurement, standard, non-standard, estimation, accuracy</p> <p>These terms are listed and defined under glossary</p> <p>It is important to explain these words to your learners and to practise using them with your learners during the lesson.</p>
Teaching guidelines	
<p>Step-by-step instructions</p> <ul style="list-style-type: none"> • Talk about how we know if an object is long or short. Discuss ways to find out. The point is for learners to understand there is a difference in how objects appear that makes them long or short, and it can change depending on what you compare these objects with. For example, a pencil is long compared to a glue stick but is short when compared to the edge of the carpet. • Give learners a few minutes to measure different objects in the class. • Let learners use hand spans, strings, metre-stick to measure different objects, such as the edge of the carpet, the length of a desk, the size of the doorway, the side of a book and so on. • Ask learners to record these measurements on an erasable whiteboard or sheet of paper, and report back to the class. • Discuss what they discovered (the measurement of same object is different). • Emphasise that there are differences in their answers because the units being used are different. (These are called non-standard units.) • Introduce standard units of measure in a ruler. • Get learners to measure some classroom objects using their rulers: 	

- An exercise book cover from top of the book to the bottom of the book
- The size of the door
- The length of a glue stick
- Let **learners explain** what they notice this time.
- Once learners get the idea of measuring, allow them to guess (estimate) how long an object is **before** they measure it. Get them to record both estimate and measurement:
- The teacher's desk; a pencil; a story book; someone's hand span.

Answers to Textbook Activities

Activity 1:

LB page 46

1. The answer will depend on how long the line the learner drew is.
2. Again, this will depend on the size of each learner's index finger.
3. Estimate:

Count:

These answers will depend on the setup of each classroom.

Activity 2:

LB page 47

1. a. A is the shortest
b. Pencil B is longer.
2. Each learner to draw 4 pencils from shortest to longest.
3. Estimate:

Measure:

These measurements will depend on the size of the desk and the size of the learner's hands.

Intervention

- Count the number of hours in a day. Look at a calendar and identify the date, month day of the week. Talk about how every 24 hours a new day starts. Spend some time examining the months of the year and their days.
- Identify days before after between, months before, after and between.
- Discuss when seasons and weather occur in the various months.
- Complete learner activities in the learner notes.
- **Teaching tips:** Encourage learners to work in pairs to complete activities and use the available technology in the class to check answers.

Conclusion

- Categorise objects according to size: long, longer and longest, shorter and shortest. Get learners to explain why they categorised them as such.
- Ask learners what other standard units of measure they know about.
- Complete learner activities in the learner notes.

Patterns make the world a better place

Topic: Geometric patterns

LB page 48

Learning Objectives

- Recognise, describe, and extend simple geometric patterns.
- Use language skills to describe patterns in detail.
- Develop reasoning and communication skills through pattern recognition and verbal description.

Introduction	Example
Introduce the concept of patterns by displaying examples of simple geometric patterns. Discuss how patterns repeat, change, or follow a specific rule, emphasizing the importance of clear descriptions for visualizing patterns.	Show a sequence with different shapes or colors (e.g. circle, square, triangle, circle, square, ...). Explain how each shape follows a repeating sequence. Then, describe the sequence verbally to help learners think about how to communicate patterns without visual aids.
Materials	New word
<ul style="list-style-type: none"> • Paper, pencils, and crayons for drawing and coloring patterns • Examples of patterns (e.g. printed or drawn shapes and colors) • Pattern cards or cutouts for hands-on arrangement 	Pattern: A sequence of design that repeats or follows a rule.
Teaching guidelines	
<p>Guiding Discussion: Emphasise using descriptive words like “circle,” “big,” “small,” or “red and green shapes.” Encourage learners to identify the repeating unit.</p> <p>Hands-On Activity: Allow learners to arrange or draw patterns in a sequence and describe them to a partner, reinforcing their vocabulary and sequence identification skills.</p> <p>Reinforcing Sequence Rules: For number patterns, guide learners to identify the “rule” (e.g. add 2 each time), and discuss how recognizing these patterns helps with predictions.</p>	
Answers to Textbook Activities	
<p>Activity 1: Answers will vary based on learner preference. Learners should use descriptive language, focusing on shapes, colors, and order.</p>	LB page 48
<p>Activity 2: Learners complete the patterns by adding the next shapes or colors in the sequence.</p>	LB page 49
<p>Activity 3: 1. 26; 28; 30; 32; 34; 36 2. 45; 48; 51; 54; 57; 60 3. 62; 66; 70; 74; 78 4. 80; 85; 90; 95; 100; 105; 110 5. 122 6. 61; 71; 81 7. 125; 95 8. 100</p>	LB page 51

Intervention	Conclusion
<ul style="list-style-type: none">• For learners struggling with patterns, use simpler, two-shape sequences or only one-step number rules (e.g. add 1 or 2).• Practice describing patterns with one peer and drawing basic patterns with assistance.	<ul style="list-style-type: none">• Discuss the importance of patterns in everyday life, connecting them to real-world examples (e.g. tile designs, fabric prints).• Reinforce that recognising and creating patterns strengthens problem-solving and sequencing skills. Encourage learners to practice drawing or identifying patterns at home or in nature.

EXTRACT PAGES

Topic: 3D objects

LB page 52

Learning objectives

- Investigate and observe which 3D objects can roll (spheres), slide (prisms), straight, curved sides.
- Collect waste boxes: Describe size, compare, and stack boxes from biggest to smallest.
- Identify and name common 3D shapes accurately.

Introduction	Example
<p>Count forwards and backwards in 10s, 5s and 2s from any multiple of 10, 5, 2.</p> <p>What objects in the classroom have the same shape?</p> <p>How are these shapes similar or different?</p> <p>Why do you think these are 3D shapes?</p> <p>What could these shapes be used for (buildings, household products)?</p> <p>What 2D shapes do you see in these 3D shapes?</p>	<p>Present a variety of 3D objects, like a ball (sphere), box (cube), and can (cylinder).</p> <p>Roll the sphere to demonstrate how it rolls differently from the cube and the cylinder.</p> <p>Discuss the differences: spheres can roll due to their curved surface, while prisms and the box can slide due to their flat surfaces.</p> <p>Ask learners to predict which objects can roll, slide, or do both, and then to test each item.</p>
Materials	New word
<p>A variety of 3D objects (e.g., cubes, cylinders, spheres)</p> <p>Chart paper; markers; paper; pencils; scissors; glue; cotton reels, toilet rolls; marbles</p>	<p>Architect: a person who designs buildings</p> <p>Prism: a box shape. Some examples of prisms are bricks, lunch boxes and dice</p>
Teaching guidelines	

- Explain to learners that 3D objects are objects that have length, width, and height, whereas 2D objects only have length and width) Show some examples of 3D objects (e.g., a cube, a cylinder, a pyramid, a sphere) and discuss their features.
- Present a collection of 3D objects to the learners, including tins, boxes, and balls,
- **First:** Show learners an object with a flat surface, then another with a curved surface. Can use a cube and a sphere.
- Ask the learners to pick out other objects with flat surfaces, or with curved surfaces.
- **Then:** Distribute a variety of 3D objects to each group of learners. Examples are cereal boxes, bean tins, tennis ball, or any ball.
- Ask the learners to sort out the variety of objects into categories. Let them explain why they group it that way. Expectation: sphere, prisms and cylinders are grouped accordingly.
- Instruct learners to examine their objects and identify their features, such rolling, sliding, ability to stack.
- Ask learners to use their desk and try to roll, slide and stack each 3D object.
- Let learners discuss their findings within their groups and record the features on a piece of paper. Use table below.

Object	Roll	Slide	Stack
Ball/sphere	Yes	No	No
Cylinder	Yes	Yes	Yes
Box	No	Yes	Yes

- Bring the groups together and have each group share their findings with the class, while you record their responses on the chart paper.
- Discuss any similarities or differences in the features of the objects.

Group discussion

- Facilitate a discussion at the end where learners share what they learned about which objects roll and slide.

Answers to Textbook Activities

Activity:

LB page 54

1. Tennis ball; soccer ball; beach ball; orange ball
2. Block; box, matchbox
3. Beach ball, soccer ball, open tennis ball, matchbox, orange ball, block
4. Box; block; matchbox
5. First close the big box, put the block on top of it, and then lastly add the matchbox.

Intervention

Conclusion

- **Questions for advanced learners**
- 1. Why do some objects roll further than others?
- 2. How could you improve the design of an object to improve its ability to roll or slide?

- Encourage learners to observe 3D objects in their surroundings, noting which shapes they see most often and how these shapes move or stack.
- Emphasize that recognizing these shapes helps in understanding their structure and purpose in everyday life.
- Review how each object's shape affects its movement (rolling or sliding) and stability, reinforcing that each 3D shape has unique properties that determine its behaviour.

Collect, sort and show

Topic: Collect and represent data

LB page 55

Learning objectives

- Collect and sort data (2D shapes – features or use the 3D objects).
- Strategically collect a few of the same kind, size of boxes for data handling.
- Represent sorted data.

Introduction	Example										
<p>Count forwards and backwards in 10s, 5s and 2s from any multiple of 10, 5, 2.</p> <p>Give learners in groups different coloured counters of different sizes and ask them to sort these out either by colour or by size.</p> <p>Tell the learners that they must explain why they sorted the counters the way they did.</p>	<p>Start with a set of 3D objects (like boxes and spheres) and ask learners to sort them by type (cubes, cones, cylinders) or by size (big, medium, small). Once sorted, help learners represent this data by drawing or creating a simple chart that shows how many of each type/size there are. For example, if there are five small boxes, two medium ones, and three large, they can group and illustrate this visually on a simple bar graph or pictograph.</p>										
Materials	New word										
<ul style="list-style-type: none"> • Grid paper, counters, plastic shapes • Pieces of paper in the colours required for the game below 	<p>Data: Information that is collected and can be used to understand something, often shown in numbers, pictures, or graphs.</p> <p>Sort: To arrange or group items based on certain characteristics, like size or shape.</p> <p>Chart: A visual display to represent collected data, often using bars, pictures, or other symbols</p>										
Teaching guidelines											
<p>Introduction: Favourite colour game</p> <ul style="list-style-type: none"> • Ask all the learners to come to the front. • Each picks a piece of paper in their favourite colour. • The learners must count how many of them there are in each colour group. • Write the names of the colours on the board and number of learners; example shown below. <table border="1" style="width: 100%; text-align: center;"> <tr> <td>No of learners</td> <td>5</td> <td>10</td> <td>12</td> <td>5</td> </tr> <tr> <td>Favourite colour</td> <td>Black</td> <td>Purple</td> <td>Green</td> <td>Red</td> </tr> </table> <ul style="list-style-type: none"> • Draw a pictograph of the data and ask learners for feedback about respective colour choices. (In the pictograph draw a stick man for each learner.) • Emphasise that a pictograph must have a key. For example, if you use a stick man in the pictograph your key will be: <ul style="list-style-type: none"> • Key: 1 stick man = 1 learner • Next draw a bar graph colouring in a block for each learner in the colour they chose. (5 learners chose red, so 5 blocks are coloured in red) • Show learners that a bar graph can be either horizontal or vertical, and that we usually arrange them from most to least. 		No of learners	5	10	12	5	Favourite colour	Black	Purple	Green	Red
No of learners	5	10	12	5							
Favourite colour	Black	Purple	Green	Red							

Answers to Textbook Activities

Activity 2:

LB page 56

- Learners to copy the pictograph in the LB and fill in the details based on the answers Miss Ndlovu got from her learners. They are listed in the LB. They are to use a smiley face to represent each learner.

9 like carrots

10 like potatoes

7 like tomatoes

6 like broccoli

- $9 + 10 + 7 + 6 = 32$ learners

3. Potatoes

4. Onion





Intervention

- For advanced learners:** Let them choose a topic that they can collect data for from their classmates. They can then put that data into a pictograph, and then into a bar graph to present to the class.

Conclusion

- Summarize by discussing how sorting and representing data helps organize information to make it easier to understand.
- Emphasise the practical value of data handling skills, like how they help to make decisions and find patterns.
- Encourage learners to continue observing and sorting items in their environment and representing the data in different forms, such as through drawings or charts, to reinforce these skills.

14 a.

Picture table				
10	😊			
9	😊		😊	
8	😊		😊	
7	😊		😊	😊
6	😊	😊	😊	😊
5	😊	😊	😊	😊
4	😊	😊	😊	😊
3	😊	😊	😊	😊
2	😊	😊	😊	😊
1	😊	😊	😊	😊
				

(3)

b. **rectangle has the most**

(1)

c. circle **has the least**

(1)

d. $9 - 6 = 3$ **more triangles than circles.**

(1)

e. $10 - 7 = 3$ **more to be added to the squares to be the same as the rectangles.**

(1)

Total: 3

EXTRACT PAGES

Term 2

Term 2: Levelling up our maths skills!

LB page 62

Counting and write	Find patterns								
1. a. $9 + 8 = 17$ b. $17 - 5 = 12$ 2. Starting from 12 and counting 5 steps forward: 13; 14; 15; 16; 17. So, the answer is 17. 3. The pattern shows an increment of 4 each time, so the answer is counting in 4s.	4. The next shape is ○ (red circle), following the pattern. 5. The pattern alternates between red and blue, so the next color is red. 6. Following the sequence, the next shapes are ● and ▲ (pink circle and blue triangle).								
Solve problems	Place value								
7. $12 + 7 = 19$ apples in total. 8. $60 - 4 = 56$, so the answer is 56.	Place value a. 49 b. 71								
Add and subtract									
10. a. <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="padding: 5px;">9</td> <td style="padding: 5px;">+10</td> <td style="padding: 5px;">+ 6</td> <td style="padding: 5px;">+ 9</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">19</td> <td style="padding: 5px;">15</td> <td style="padding: 5px;">18</td> </tr> </table>		9	+10	+ 6	+ 9		19	15	18
9	+10	+ 6	+ 9						
	19	15	18						
b. $20 + 4 = 24 + 2 = 26 - 10 = 16$.									

EXTRACT PAGES