

Maths and Me: Senior Infants – Short-Term Plan, Unit 7: Operations within 15 (December: Weeks 1&2)
Strand(s) > Strand unit(s)

Number > Place Value and Base Ten, Sets and Operations; Numeration and Counting, Algebra > Patterns, Rules and Relationships.




Learning Outcome(s)

Through appropriately playful and engaging learning experiences children should be able to develop a sense of ten as the foundation for place value and counting; recognise and understand what happens when quantities (sets) are partitioned and combined; develop an awareness that the purpose of counting is to quantify; use a range of counting strategies for a range of purposes; explore, recognise and create patterns and sequences.

Lesson	Focus of Learning (with Elements)	CM	Learning Experiences	Assessment
1	Comparing: Establishes the number immediately before or after another number without having to start at 1 (R); Counts, individually and chorally, forwards and backwards within 20 starting at any given number using verbal, concrete and pictorial supports (U&C)		(D) Notice & Wonder L1 (D) Reason & Respond L1, 3–5 (D) Think-Pair-Share L1–5 (C) Comparing Toys L1 (D) Write-Hide-Show L1–3 (D) Quick Images L2–3 (D) Choral Counting L2–3	Intuitive Assessments: responding to emerging misconceptions
2	Combining Sets: Composes and decomposes the structure of numbers 11–15 in terms of tens and ones (U&C); Uses appropriate strategies to find out how many (A&P,S); Compares equivalent and non-equivalent sets by value (1 to at least 10) and establishes how much more/less (R)		(D) Concept Cartoon L2–3, 5 (C) Build it; Sketch it; Write it L2, 5 (C) Beanbag Toss L3 (C) Bar Model Comparison L3 (C) Number Paths L4 (D) Three-Act Task L5 (C) Number Paths L4 (C) Sorting Manipulatives L5	Planned Interactions: responding to insights gleaned from children's responses to learning experiences
3	Bar Models: Demonstrates an ability to subitise various arrangements or models of numbers to 12 (U&C); Investigates various arrangements of manipulatives to prompt different mental images of numbers up to 15, while developing a sense of each number (R)			
4	Number Paths: Orders and compares numbers 1–15 with each other (R); Counts forwards in ones to demonstrate addition (C)			
5	Addition: Jumps forwards on a number line or path to begin to express addition (C); Demonstrates understanding of all possible partitions of number bonds up to at least 10 (R)		Print resources Pupil's Book pages 37–42 Home/School Links Book pages 18–19 PCMs 21–23	Assessment Events: information gathered from completion of the unit assessment in the Progress Assessment Booklet pages 16–17
6	Review and Reflect: Reviews and reflects on learning (U&C)			

Key: Elements: (U&C) Understanding and Connecting; (C) Communicating; (R) Reasoning; (A&P,S) Applying and Problem-Solving. **CM:** **Cuntas Míosúil:** please tick when you have completed the focus of learning. **Learning Experiences:** (C) concrete activity; (D) digital activity; (P) activity based on printed materials, followed by lesson numbers.

Additional information for planning

 Progression Continua	See 'Senior Infants <i>Maths and Me</i> Progression Continua Overview' for a detailed breakdown of how all progression continua are covered.
 Maths Language	See 'Senior Infants <i>Maths and Me</i> Maths Language Overview', individual lesson plans and Unit 7 Maths Language Cards.
 Equipment	See 'Senior Infants <i>Maths and Me</i> Maths Equipment Overview' and individual lesson plans.
Inclusive Practices	<ul style="list-style-type: none"> ● See Let's Strengthen and Let's Deepen suggestions throughout lesson plans. ● See Unit 7 Let's Strengthen Suggestions for Teachers. (These address the Common Misconceptions and Difficulties listed below.) ● See Unit 7 Let's Strengthen PCM. ● See Unit 7 Let's Deepen PCM.
Integration	See individual lesson plans.

Background and rationale

- The overarching theme of Toys is appropriate for this time of the year and will include activities involving toys that will interest all children.
- The children will identify more or less than a number up to 15, reinforcing the concept of addition by combining two or more groups of objects. They will continue exploring addition and the number bonds of 10 in order to build 10 and work out how many ones (units) are left over.
- In keeping with the new *Primary Mathematics Curriculum 2023, Maths and Me* uses the terminology of tens and ones, as opposed to tens and units.
- In Senior Infants it is preferable that the children use groupable base ten materials only, i.e. those that can be physically composed and decomposed (such as interlocking cubes, bundles of lollipop sticks, maths links/chains, ten frames and counters). This is preferable to other base ten materials that cannot be physically composed and decomposed, and must be swapped instead (e.g. base ten blocks, place value counters). While using groupable materials is more time-consuming and requires more resources and organisation, swapping is considerably more abstract and has the potential to introduce an element of error (e.g. where the child swaps nine/11 ones for a ten).
- The children begin to explore the bonds in a more systematic way and recognise the commutative law of addition.
- The children are introduced to missing parts as a precursor to subtraction by counting on.

The theme of this unit is **Toys**.

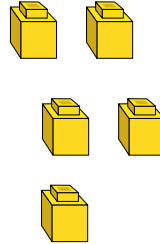
Common misconceptions and difficulties

- The children may include the whole in their count when counting the parts in a part-whole model to find the whole.
- They may not see that the whole is the sum of the parts in a part-whole model.
- They may use a random approach to finding number bonds of 10, missing some of them.
- They may not be aware of the commutative law of addition, seeing 8 and 2 as a separate number bond from 2 and 8.

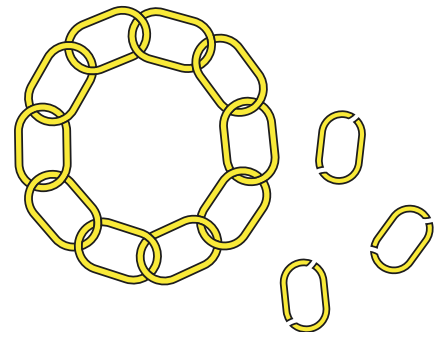
The Unit 7 Let's Strengthen Suggestions for Teachers address the common misconceptions and difficulties listed above.

Mathematical models and representations

- Assorted countable resources in the classroom (e.g. bears, links, lollipop sticks and counters)
- Groupable cubes or interlocking cubes
- Ten frames
- Rekenreks
- Bead strings
- Fingers
- Number paths
- Branching bonds (example of part–whole models)



Interlocking cubes



Links

Teaching tip

Ten Frames, Number Paths and Branching Bond manipulative printables are available to support this unit. Click on the resources icon on the *Maths and Me* book cover on edcolearning.ie

Day 1, Lesson 1

Comparing

Focus of learning (with Elements)

- Establishes the number immediately before or after another number without having to start at 1 (R)
- Counts, individually and chorally, forwards and backwards within 20 starting at any given number using verbal, concrete and pictorial supports (U&C)

Learning experiences

- D** Digital activity: Toys, Toys, Toys!
MAM Routines: Notice & Wonder; Reason & Respond, with Think-Pair-Share
- D** **C** Concrete activity: Comparing Toys
- C** Class discussion: What Number Comes Next?
MAM Routine: Write-Hide-Show
- P** Pupil's Book page 37: Comparing

Equipment

- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- Counting aids, such as number paths, ten frames, counting beads and rekenreks
- Picture books
- Toys

Maths language

- There is no new maths language in this lesson.

Warm-up

- D** **Digital activity: Toys, Toys, Toys!**
MAM Routine: Notice & Wonder

Display the poster and click to play or ask:

- What do you notice?
- What do you wonder?

Allow the children the opportunity to respond to (agree/disagree with or query) others' responses, but do not confirm or reject any of the ideas. Note any 'wonderings' that could become the basis for a subsequent maths investigation.

Main event

- D** **Digital activity: Toys, Toys, Toys!** **MAM Routines: Reason & Respond, with Think-Pair-Share**

Display the poster and, using Think-Pair-Share to gather feedback, click to play or ask:

- Are there more dolls or video games?
- Are there more books than vehicles?
- Which is the smaller set: the soft toys or the building brick sets?
- Are there less video games or books?
- Which is the larger set: the dolls or the vehicles?
- Which is the smaller set: the soft toys or the dolls?
- Are there more books than soft toys?
- Are there less vehicles or video games?

- Are there less building brick sets or books?
- Which is the larger set: the dolls or the building brick sets?

- D** **C** **Concrete activity: Comparing Toys**

With the Toys, Toys, Toys! poster still on display, ask the children to work in pairs/groups and to choose whatever manipulatives they would like to represent toys for counting.

Ask each group to:

- Create a set of picture books.
- Create a set of soft toys.
- Create a set of vehicles.
- Create a set of dolls.
- Create a set of dinosaurs.

Ask/say:

- Which set contains the most?
- How can you prove it? (e.g. Line up the picture books beside the soft toys.)
- Were you right?
- Which item was easiest to compare?
- Now we're going to count the toys. Which strategy will you use?
- Did anyone choose a different method?

C Class discussion: What Number Comes Next?

MAM Routine: Write-Hide-Show

Write a number between 0 and 14 on the board and allow time for the children to write the next number on their MWBs. Reveal the answer.



P Pupil's Book page 37: Comparing



Let's strengthen

For further support for comparing, use the Unit 7 Let's Strengthen PCM.

Optional consolidation and extension possibilities

Integration Language: English: Toys and shopping. Gaeilge: Bréagáin, ag siopadóireacht, an Nollag.

Story Read *12 Ways to Get to 11* by Eve Merriam.

A reading is available at: edco.ie/tyb8

Classroom Display The children create a collage of a toy shop with the correct amount of toys on the shelves relating to the numbers 11 to 15.

Listen and Count The children close their eyes, listen, and count silently as you drop marbles or buttons into a tin, one by one. Ask them how many you dropped. Using Write-Hide-Show, the children use number tallies or other marks to record their responses.

Class Reward Chart Create a chart using two ten frames. Explain to the class that they will get a sticker on the chart for good effort. When the chart is full, they get a reward. Start each day by asking: *How many stickers have we got? How many do we still need?*

Days 2 and 3, Lesson 2

Combining Sets

Focus of learning (with Elements)

- Composes and decomposes the structure of numbers 11–15 in terms of tens and ones (U&C)
- Uses appropriate strategies to find out how many (A&PS)
- Compares equivalent and non-equivalent sets by value (1 to at least 10) and establishes how much more/less (R)

Learning experiences

- D** Digital activity: Dot Patterns (6) **MAM Routines: Quick Images, with Write-Hide-Show**
- D** Digital activity: Counting to 15 (4) **MAM Routine: Choral Counting**
- D C** Digital activity: Grouping Tens and Ones (1) **MAM Routine: Concept Cartoon**
- C** Concrete activity: Show Me! **MAM Routine: Build it; Sketch it; Write it**
- C** Concrete activity: Sorting Sets **MAM Routine: Think-Pair-Share**
- P** Pupil's Book page 38: Combining Sets

Equipment

- Picture books
- Toys
- Interlocking cubes
- Links
- Lollipop sticks and elastic bands or hair ties
- Rekenreks or beads and cords
- Counters and ten frames
- Number shapes
- A collection of 15 or fewer attribute blocks (circles, squares, rectangles and triangles only) per group

Maths language

- combine, add

Warm-up

Choose a different warm-up each day.

- D** **Digital activity: Dot Patterns (6)** **MAM Routines: Quick Images, with Write-Hide-Show**

Play the Quick Images slideshow, which contains a series of images of dot patterns. Click to briefly reveal and then hide the image(s), and use Write-Hide-Show to collect feedback. Ask:

- What did you see?
- How did you come up with your answer?
- Did anyone see the number a different way?

- D** **Digital activity: Counting to 15 (4)** **MAM Routine: Choral Counting**

Choose whether to count forwards or backwards. Then choose a random number between 1 and 15 to

begin. Ask a child to say this number, and another child to say the next number. Then count forwards/backwards from there with/without the audio.

Let's strengthen

Some children may find it easier to have a partially filled-in number path in front of them initially so that they can see the next number, and therefore will not automatically start at 1 again.

Let's deepen

Challenge some children to count backwards from the random number.

Main event

- D C** **Digital activity: Grouping Tens and Ones (1)** **MAM Routine: Concept Cartoon**

Display the Concept Cartoon, in which the characters are using clues to guess what number might be hidden in the box. Click to hear each character's statement. Ask:

- What do you think? Why?
- Do you agree with any of the characters?
- What counting strategy did you use?



Teaching tip

Look at the clues first. Allow the children time to show a solution, using their choice of groupable manipulatives or by drawing on their MWBs.

- C** **Concrete activity: Show Me!** **MAM Routine: Build it; Sketch it; Write it**

Ask the children to build numbers, using the following manipulatives and representations: lollipop sticks with elastic bands/hair ties to make groups of ten; interlocking cubes; links closed into a 'bracelet' when a group of ten is made; counters and ten

frames; rekenreks or beads and cords; number shapes. The children then choose how to sketch the numbers, as a set of ten and leftover ones. Finally, the children write the numbers as follows: the ten first, followed by the number of ones. Ask them to tell you what they combined (e.g. $10 + 5$ combines to make 15; $10 + 3$ combines to make 13.)

Let's strengthen

For more support with combining, see the Unit 7 Let's Strengthen PCM and the Unit 7 Let's Strengthen Suggestions for Teachers.

C Concrete activity: Sorting Sets

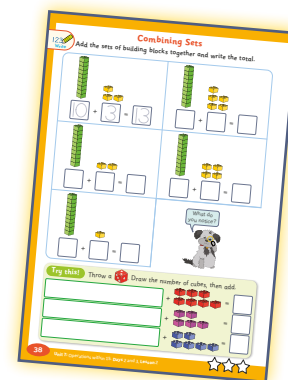
MAM Routine: Think-Pair-Share

Distribute a collection of attribute blocks (maximum of 15, in a range of colours, sizes and shapes) to each group. Ask the children to sort the attribute blocks into sets according to their own criteria. Ask:

- How did you sort them?
- Did anyone sort them differently? (e.g. by colour, shape, size, thickness)

- How many sets did you have?
- Did anyone have more/less sets?
- What shapes do you have? (revision of Unit 6: Shape)
- How many shapes do you have if you combine the first two sets? (e.g. the blue and yellow group, or the triangles and squares)
- How many shapes do you have altogether if you combine all of the sets?

P Pupil's Book page 38: Combining Sets



Optional consolidation and extension possibilities

Integration Language: English: Toys and shopping. Gaeilge: Bréagáin, ag siopadóireacht, an Nollag.

Story Read *Anno's Counting Book* by Mitsumasa Anno. A reading is available at: edco.ie/kpes

Strategy Wall Add the 'Add 10' calculation strategy wall card to the class strategy wall. Refer to it throughout this and subsequent units. The children could also add their own sketches of this strategy, both to the strategy wall and their maths journals.

Hop and Count (Integration with PE) In the PE hall or yard, tell the children to hop/jump/touch the ground 20 times while counting.

Maths Journal Choose your favourite number between 11 and 15. Use Build It; Sketch it; Write it to represent the number using as many ways as possible. (e.g. tallies, rekenreks, links, number shapes). Write about it: How many tens and ones are needed to show the number?

Days 4 and 5, Lesson 3

Bar Models

Focus of learning (with Elements)

- Demonstrates an ability to subitise various arrangements or models of numbers to 12 (U&C)
- Investigates various arrangements of manipulatives to prompt different mental images of numbers up to 15, while developing a sense of each number (R)

Learning experiences

- D** Digital activity: Ten Frame Patterns
MAM Routines: Quick Images, with Write-Hide-Show
- D** Digital activity: Counting to 15 (5)
MAM Routine: Choral Counting
- D C** Digital activity: Grouping Tens and Ones (2)
MAM Routine: Concept Cartoon
- D C** Digital activity: Branching Bond and Bar Model *MAM Routines: Reason & Respond, with Think-Pair-Share*
- P C** Concrete activity: Beanbag Toss
- C** Concrete activity: Bar Model Comparison
- P** Pupil's Book page 39: Bar Models

Equipment

- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- Counting aids, such as number paths, ten frames, counting beads and rekenreks
- Cuisenaire rods
- Reusable dry-erase pockets and markers
- Hula hoops and beanbags
- Three paper plates per pair/group
- PCM 21

Maths language

- bar model, Cuisenaire rods

Warm-up

Choose a different warm-up each day.

- D** **Digital activity: Ten Frame Patterns** *MAM Routines: Quick Images, with Write-Hide-Show*

Play the slideshow, which contains a series of images of ten-frame patterns. Briefly reveal and then hide the image(s), and use Write-Hide-Show to collect feedback. Ask:

- What did you see?
- How did you come up with your answer?
- Did anyone see the number a different way?

- D** **Digital activity: Counting to 15 (5)**
MAM Routine: Choral Counting

Choose whether to count forwards or backwards. Then choose a random number between 1 and 15 to begin. Ask a child to say this number, and another child to say the next number. Then count forwards/backwards from there with/without the audio.

Let's deepen

Challenge some children to count backwards from the random number.

Main event

Choose to do some or all over the two days.

- D C** **Digital activity: Grouping Tens and Ones (2)**
MAM Routine: Concept Cartoon

Display the Concept Cartoon, in which the characters are using clues to guess what number might be hidden in the box. Click to hear each character's statement. Ask:

- What do you think? Why?
- Do you agree with any of the characters?
- What counting strategy did you use?

Teaching tip

Look at the clues first. Allow the children time to show a solution, using their choice of groupable manipulatives or by drawing on their MWBs.

- D C** **Digital activity: Branching Bond and Bar Model** *MAM Routines: Reason & Respond, with Think-Pair-Share*

Draw an empty branching bond on the board, and allow time for Think-Pair-Share. Ask the children to suggest a number for the top circle and ask them for the numbers to go into the bottom circles, and discuss the number bond they have created. Go to the Manipulatives e-Toolkit and open the bar model tool. Ask a child to create a bar model showing the same number bond as the branching bond on the board. The rest of the class use manipulatives to mimic what their classmate is doing on the screen.

C P Concrete activity: Beanbag Toss

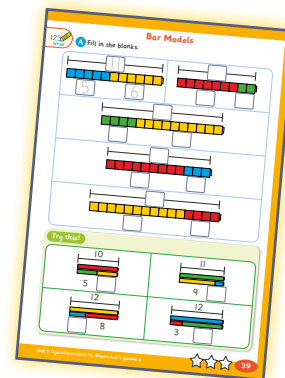
Distribute a hula hoop, a set of up to 15 beanbags, a copy each of PCM 21 Blank Bar Models placed inside a dry-erase pocket, and a marker to each pair or group. Call out a number between 11 and 15. The children take turns to throw the beanbags into the hula hoop. They choose how to record the results (the amount inside the hoop and the amount outside the hoop combine to make the number you called out.)



C Concrete activity: Bar Model Comparison

Distribute a set of Cuisenaire rods to each pair/group. Ask the children to create bar models, using two small rods to make a larger rod. What number might each rod represent?

P Pupil's Book page 39: Bar Models



Let's deepen

For further opportunities with bar models, complete the Unit 7 Let's Deepen PCM.

Optional consolidation and extension possibilities

Home/School Links Book Page 18 can be completed at any time after this lesson.



Story Read *The Mousier, the Merrier!* by Eleanor May. A reading is available at: edco.ie/zez9

Sensory ('Feely') Bag Use a sensory ('feely') bag to allow the children to count a variety of items by feeling.

Engineering Throw a dice to decide how many dominoes to add to 10. Cover the 6 with a sticker to mean 0. The total will be between 11 and 15 dominoes. Set up that number (11–15) of dominoes in a sequence. Arrange them so that when the first domino falls it will knock over all the other dominoes.

Days 6 and 7, Lesson 4

Number Paths

Focus of learning (with Elements)

- Orders and compares numbers 1–15 with each other (R)
- Counts forwards in ones to demonstrate addition (C)

Learning experiences

- D** Digital activity: Same But Different – Numbers to 15 (1)
MAM Routines: Reason & Respond, with Think-Pair-Share
- D** Toolkit: Number Paths **MAM Routine: Reason & Respond**
- C** Concrete activity: Number Paths
- P** Pupil's Book pages 40–41: Number Paths

Equipment

- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- Counting aids, such as ten frames, counting beads and rekenreks
- Two dice per pair
- Counters
- PCM 22

Maths language

- There is no new maths language in this lesson.

Warm-up



- D Digital activity: Same But Different – Numbers to 15 (1) MAM Routines: Reason & Respond, with Think-Pair-Share**

Play the slideshow and, using Think-Pair-Share, ask the children to propose reasons for why the images are the same and why they are different.

Main event



- D Video: Number Path (3) MAM Routine: Reason & Respond**

Play the video, which shows the number path 1–15, followed by a number sentence $5 + 7$. Pause to question the children and allow them to record their responses on their MWBs. Ask:

- Which is bigger: 7 or 5?

Play the rest of the video.



Teaching tip

Ask the children to remind you how to use a number path. (Start on the bigger number!)

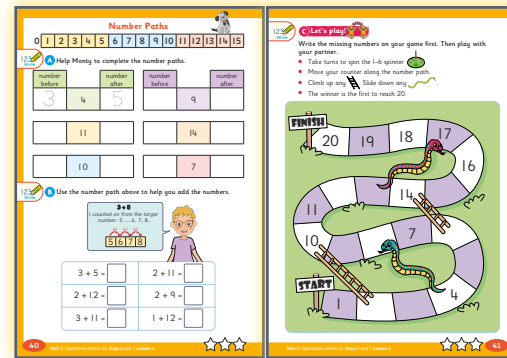


- C Concrete activity: Number Paths MAM Routine: Reason & Respond**

Distribute two dice, a copy of PCM 22 Number Path 1–15 and a counter to each pair. Begin by demonstrating the activity. Throw two dice and ask the children to remind you how to use a number path. (Start on the bigger number.) Place a counter on the bigger number on the number path. Move the counter forwards by the smaller number of spaces. In pairs, the children take turns to see who can get to a bigger number on the number path.



- P Pupil's Book pages 40–41: Number Paths**



Optional consolidation and extension possibilities

Integration Language: English: Toys and shopping. Gaeilge: Bréagáin, ag siopadóireacht, an Nollag.



Story Read *One ... Two ... Three ... Sassafras!* by Stuart J. Murphy. A reading is available at: edco.ie/vxep

Hop and Count (Integration with PE) In the PE hall or yard, tell the children to hop/jump/touch the ground 20 times while counting.

Sensory ('Feely') Bag Use a sensory ('feely') bag to allow the children to count a variety of items by feeling.

Strategy Wall Add the 'Count On from Larger Number' calculation strategy wall card to the class strategy wall. Refer to it throughout this and subsequent units. The children could also add their own sketches of this strategy, both to the strategy wall and their maths journals.

Listen and Count The children close their eyes, listen, and count silently as you drop marbles or buttons into a tin, one by one. Ask them how many you dropped. Using Write-Hide-Show, the children use number tallies or other marks to record their responses.

Days 8 and 9, Lesson 5

Addition

Focus of learning (with Elements)

- Jumps forwards on a number line or path to begin to express addition (C)
- Demonstrates understanding of all possible partitions of number bonds up to at least 10 (R)

Learning experiences

- D** Digital activity: Same But Different – Numbers to 15 (2)
MAM Routines: Reason & Respond, with Think-Pair-Share
- D** Digital activity: Tumbling Teddies **MAM Routine: Three-Act Task**
- C** Concrete activity: Altogether How Many?
MAM Routine: Build it; Sketch it; Write it
- D** Digital activity: Matching Numerals to Representations (2)
MAM Routine: Reason & Respond
- C** Concrete activity: Sorting Manipulatives
- P** Pupil's Book page 42: Addition

Equipment

- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- Counting aids, such as number paths, ten frames, counting beads, number shapes and rekenreks
- 15 assorted manipulatives per pair
- PCM 23

Maths language

- There is no new maths language in this lesson.

Warm-up



- D** Digital activity: Same But Different – Numbers to 15 (2) **MAM Routines: Reason & Respond, with Think-Pair-Share**

Play the slideshow and, using Think-Pair-Share, ask the children to propose reasons for why the images are the same and why they are different.

Main event



- D** Digital activity: Tumbling Teddies
MAM Routine: Three-Act Task

Act 1: Notice & Wonder

Play the video, in which pink and blue teddies fall out of the basket and onto the floor. They are then placed back in the basket. Click to play or ask:

- What do you notice?
- What do you wonder? (Note any 'wonderings' that could become the basis for a subsequent maths investigation.)
- (Reveal the focus question.) How many pink teddies are there in the basket altogether?

Act 2: Productive Struggle

Look at the image and click to play or ask:

- Make an estimate that is too high.
- Make an estimate that is too low.
- Make an estimate that is reasonable.

The children work in pairs or small groups to answer the focus question. If necessary, prompt them by asking:

- Do you have enough information?
- What do you need to know?

Once the children explain that they need to see how many teddies *are in the basket altogether* play the second video, which shows a number of teddies being taken out of the basket and grouped according to colour (5 blue teddies and 4 pink teddies). Some

teddies (4 pink and 1 blue) are left in the basket. Show the children PCM 23 Tumbling Teddies.

- How many teddies have been taken out of the basket?

Pause to allow the children to work towards an answer to the focus question. Click to play or ask:

- What do you know?
- To get an answer, what needs to be done?
- How might we do this?

Ask the children to choose their preferred way to mathematically model their solution(s) using Build it; Sketch it; Write It, along with PCM 23 to help them if they wish.

Act 3: The Big Reveal

The children share and discuss their strategies, solutions and models. Ask:

- How many blue teddies are not in the basket?
- How many pink teddies are not in the basket?
- How many teddies are in the basket? How might they be partitioned? How many blue teddies are in the basket?

Then, flip the image to reveal the actual total (14 teddies altogether; 8 pink and 6 blue). Click to play or ask:

- Is this the answer that you expected? Why or why not?
- What 'I wonder' questions did you answer?
- Do you have any new 'I wonder' questions?

Let's strengthen

The children may require two ten frames and support choosing manipulatives.

Let's deepen

Encourage some children to compare the pink and blue teddies. Which set has more/less?

C Concrete activity: Altogether How Many? MAM Routine: Build it; Sketch it; Write it

Present this problem to the children: Jay has 9 toy cars. Mia has 4 toy cars. How many toy cars do they have altogether?

Ask the children to build numbers, using their choice of the following manipulatives and representations: lollipop sticks with elastic bands/hair ties to make groups of ten; interlocking cubes; links closed into a 'bracelet' when a group of ten is made; counters and ten frames; rekenreks or beads and cords; number shapes.

The children then choose how to sketch the numbers, as a set of ten and leftover ones. Finally, the children write the numbers as follows: the ten first, followed by the number of ones.

Teaching tip

Ensure that the children build a ten and ones, because initially they may just build 13 altogether.

D Digital activity: Matching Numerals to Representations (2)

MAM Routine: Reason & Respond

Play the matching game, in which the children are asked to match the representations of the same value.

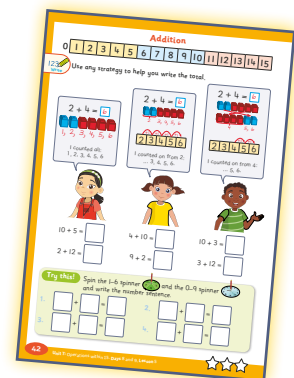
C Concrete activity: Sorting Manipulatives

Distribute 15 assorted manipulatives for counting to each pair. Ask the children to split the manipulatives into three piles, and then order the piles by size, starting with the biggest. Ask:

- Did any group split them differently? How?

Write each order on the board in a number sentence. Discuss the fact that there are many number bonds of 15.

P Pupil's Book page 42: Addition



Optional consolidation and extension possibilities

Home/School Links Book Page 19 can be completed at any time after this lesson.

Integration Language: English: Toys and shopping. Gaeilge: Bréagáin, ag siopadóireacht, an Nollag.

Story Read any of the picture books suggested in this section of Lessons 1–4.

Hop and Count (Integration with PE) In the PE hall or yard, tell the children to hop/jump/touch the ground 20 times while counting.

Sensory ('Feely') Bag Use a sensory ('feely') bag to allow the children to count a variety of items by feeling.

Listen and Count The children close their eyes, listen, and count silently as you drop marbles or buttons into a tin, one by one. Ask them how many you dropped. Using Write-Hide-Show, the children use number tallies or other marks to record their responses.

Day 10, Lesson 6

Review and Reflect

Focus of learning (with Elements)

- Reviews and reflects on learning (U&C)

Warm-up

Carry out a warm-up activity of your choice from one of the lessons in this unit.

Main event

Choose from this menu of activity ideas, or choose your own way to best structure this last lesson to suit your needs and the needs of your class.

<p>Let's talk!</p> <p>Use Think-Pair-Share to review the unit. Individual children could present examples of their own drawings/work/constructions to the class, and talk about what they have learned.</p>	<p>Let's play!</p> <p>Play 'Make 15' or 'Cross Out Totals' from the Games Bank.</p>
<p>Let's investigate!</p> <p>Ask the children to try to find as many ways as they can to make 15, 14, 13, 12 and 11, using models and manipulatives.</p>	<p>Maths strategies and models</p> <p>Ask the children to give examples of the models they used in this unit (bar model, number path and branching bond). Which strategies and models did they prefer and why?</p>
<p>Progress Assessment Booklet</p> <p>Complete Questions 28–33 on pages 16–17. Alternatively, these can be left to do as part of a bigger review during the next review week.</p>	<p>Maths Stations</p> <p>Set up Maths Stations for the numbers 15, 14, 13, 12 and 11. The children build each number, using a variety of models, manipulatives and counting aids. Include appropriate stories/read-alouds at each station.</p>
<p>Let's strengthen</p> <p>Identify children who might benefit from extra practice with some of the key concepts or skills in this unit. Consult the Unit 7 Let's Strengthen Suggestions for Teachers and/or use the Unit 7 Let's Strengthen PCM.</p>	<p>Let's deepen</p> <p>Use the Unit 7 Let's Deepen PCM.</p>

