Unit 2: Addition and Subtraction 1

Maths and Me: Short-Term Plan, Unit 2: Addition and Subtraction 1 (September: Weeks 3&4)

Strand(s) > Strand Unit(s)	Number > Sets and Operations; Numeration and Counting; Place Value and Base Ten. Algebra > Expressions and Equations; Patterns, Rules and Relationships.
Learning Outcome(s)	Through appropriately playful and engaging learning experiences children should be able to select, make use of and represent a range of addition and subtraction strategies; demonstrate proficiency in using and applying different counting strategies; understand that digits have different values depending on their place or position in a number; use estimation to quickly determine number values and number calculations; interpret the meaning of symbols or pictures in number sentences; identify and express relationships in patterns, including growing or shrinking shape patterns and number sequence.

Lesson	Focus of Learning (with Elements)	CM	Learning Experiences	Assessment
1	**Fact Families:** Translates verbal problems involving addition and subtraction into pictorial representations and/or written number sentences (and vice versa) (C); Constructs number sentences and number stories to solve problems involving addition and subtraction (A&PS); Begins to explore alternative ways of expressing number sentences (U&C)		(D) Notice and Wonder L1, 3 (D) Think-Pair-Share L1–4, 7	**Intuitive Assessment:** responding to emerging misconceptions
2	**Turnaround and Inverse:** Demonstrates and justifies that addition is commutative (we can swap the order of the numbers being added and still get the same total), but subtraction is not (R); Explores and describes the inverse relationship between addition and subtraction (U&C)		(D) Reason and Respond L1, 3–5 (D) Write-Hide-Show L1–8 (D) Would This Work? L1, 4–8	
3	**Doubles, Near Doubles and In-between Doubles:** Explores a range of approaches (e.g. doubles) to support calculation strategies (U&C); Recognises and describes patterns that emerge in the addition of odd/even numbers (C)		(C) Build it; Sketch it; Write it L1–8 (D) Quick Images L2–5	**Planned Interactions:** responding to insights gleaned from children's responses to learning experiences
4	**Friendly Facts:** Identifies simpler fact groups (U&C); Applies and justifies the zero property to support calculations (R); Draws from patterns and properties to determine unknown number facts from core facts (A&PS)		(D) Concept Cartoon L2, 4 (C) Turnaround and Inverse L2	
5	**Different Types of Subtraction:** Begins to recognise and use different representations of subtraction, i.e. removal/take away, comparison/difference and complementary addition (U&C)		(C) Branching Bonds and Number Sentences L2 (C) Game: Add Snap L4	
6	**Checking Calculations:** Checks addition and subtraction calculations, using a range of strategies, including inverse operations, reasonableness, and known facts (U&C)		(D) Number Strings L6–8 (C) Two Truths and a Lie L6	**Assessment Events:** information gathered from completion of the unit assessment in the Progress Assessment Booklet pages 9–10
7	**Adding Three One-Digit Numbers:** Applies and justifies the associative property to support calculations (R) Applies knowledge of 'friendly' facts (doubles, bonds of 10, etc.) to perform computations efficiently (R)		**Print resources** Pupil's Book pages 13–19	
8	**Related Facts:** Draws from patterns and properties to derive unknown number facts from core facts (e.g. multiples of 10) (A&PS); Solves problems using known number and property facts and knowledge of mental strategies involving multiples of ten, up to 100 (A&PS)		Home/School Links Book page 8–9 PCMs 5, 6	
9	**Review and Reflect:** Reviews and reflects on learning (U&C)			

Key: Elements: (U&C) Understanding and Connecting; (C) Communicating; (R) Reasoning; (A&PS) Applying and Problem-Solving. **CM: Cuntas Miosúil:** 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 '2nd Class *Maths and Me* Progression Continua Overview' for a detailed breakdown of how all progression continua are covered.
Maths Language	See '2nd Class *Maths and Me* Maths Language Overview', individual lesson plans and Unit 2 Maths Language Cards.
Equipment	See '2nd Class *Maths and Me* Maths Equipment Overview' and individual lesson plans.
Inclusive Practices	• See Let's Strengthen and Let's Deepen suggestions throughout lesson plans. • See Unit 2 Let's Strengthen Suggestions for Teachers. (These address the Common Misconceptions and Difficulties listed below.) • See Unit 2 Let's Strengthen PCM. • See Unit 2 Let's Deepen PCM.
Integration	See individual lesson plans.

Background and rationale

- The progression continua statements for Sets and Operations largely refer to skills relating to the addition and subtraction of numbers up to 99 and 199. While this unit follows on from Numbers to 100, it will primarily explore the addition and subtraction of numbers within 20, to allow the children to consolidate their understanding of the actual operations, as opposed to grappling with bigger numbers. That said, depending on random numbers picked for various games and activities, the children may encounter situations where they are adding numbers within 30. As the unit progresses, the children apply their knowledge of place value and facts within 10, to addition and subtraction involving multiples of 10, within 100 (Lessons 8 and 9).

- The overarching theme of The Orchard is appropriate for this time of the year, and this theme can be integrated with Language, Geography and Science via discussion about the seasons.

- To help the children to make rich and meaningful connections between learning experiences under different strand units, and while this unit is concerned largely with the strand unit of Sets and Operations, it also includes learning experiences from: Numeration and Counting; Expressions and Equations; Patterns, Rules and Relationships; and, to a lesser extent, Place Value and Base Ten (see above).

- As mentioned in Unit 1, consider incorporating a quick 1–2-minute counting practice (forwards, backwards, various starting points and/or intervals), focused on a range appropriate to the needs of your class/group, as part of your daily routine, both within and outside Maths lessons. For example, you could have brief counting sessions as part of morning welcome, transitions between lessons, en route to the PE hall or yard, while children are tidying up after breaks and/or when they are going home.

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

Common misconceptions and difficulties

Addition and subtraction are concepts that children can *appear* to have grasped (e.g. demonstrating surface knowledge such as computing accurately when the required operation is given), but where true depth of knowledge can be lacking or missing entirely.

- The children may struggle to recognise the parts and whole amount in operational relationships, and may confuse which is which. (When representing these in number stories and number sentences, the children may misinterpret their meaning and/or what they represent and may misrepresent them or order them incorrectly in number sentences.)

- The children may struggle to appreciate the conceptual differences between addition and subtraction and their inverse relationship, i.e. that in addition, parts are combined to make a whole amount; whereas subtraction involves removing a part from the whole amount to leave another part. (When two whole amounts are compared, the children may struggle to identify the difference between them.)

- They may incorrectly assume that subtraction is commutative (that you can swap or turn around the numbers; that order is irrelevant), when only addition is commutative.

- They may not recognise that there are different types of subtraction, and might only consider subtraction as 'take away'.

- They may incorrectly assume that all number sentences in a fact family are correct, once the same three values are used each time, and fail to 'read' the symbols to interpret if they correctly represent the relationship between the values.

- They may not recognise the importance of known facts and/or how known facts can be used to solve unknown and related facts. Instead, some children may rely on inefficient strategies such as counting all or counting on in ones.

- They may incorrectly assume that they should check calculations using the same method that they used originally to calculate. (Explain to the children that if they originally miscalculated, it is likely they will do so again if they do things the same way. Therefore, they should always use a different approach when checking.)

The Unit 2 Let's Strengthen Suggestions for Teachers address the common misconceptions and difficulties listed above.
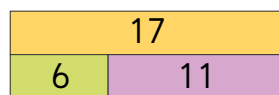
Mathematical models and representations

- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- Interlocking cubes
- Ten frames
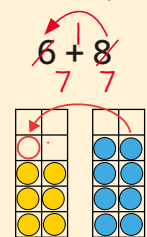- 100 square
- Addition square
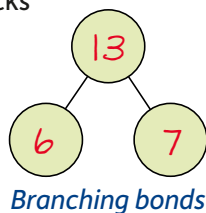
Branching bonds

- Open number line
- Branching bonds and bar models (examples of part–whole models)
- Place value counters
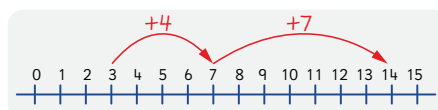- Base ten blocks
- Number shapes

In-between doubles
Ten frames

Teaching tip

The following manipulative printables are available to support this unit: Double Ten Frames, Branching Bonds, Place Value Counters, Base Ten Blocks and Number Shapes. Click on the resources icon on the *Maths and Me* book cover on **edcolearning.ie**

Bar model

Open number line

Day 1, Lesson 1

Fact Families

Focus of learning (with Elements)

- Translates verbal problems involving addition and subtraction into pictorial representations and/or written number sentences (C)
- Constructs number sentences and number stories to solve problems involving addition and subtraction (A&PS)
- Begins to explore alternative ways of expressing number sentences (U&C)

Learning experiences

- **D** Digital activity: The Orchard
  MAM **Routines: Notice & Wonder, with Think-Pair-Share; Reason & Respond, with Write-Hide-Show**
- **D** Digital activity: Jay's Apples *MAM* **Routines: Would This Work?, with Build it; Sketch it; Write it**
- **C** Concrete activity: Fact Families
  MAM **Routines: Build it; Sketch it; Write it; with Think-Pair-Share**
- **P** Pupil's Book page 13: Fact Families

Equipment

- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- Counting aids, such as 100 square or number lines
- Open number line
- Unit 2 Maths Language Cards

Maths language

- addition, subtraction, plus, minus, equals, reasonable estimate, whole amount, part, ten, number line, number story, number sentence, fact family, branching bond, bar model

Teaching tip

As mentioned in Unit 1, consider incorporating a quick 1–2-minute counting practice (forwards, backwards, various starting points and/or intervals), focused on a range appropriate to the needs of your class/group, as part of your daily routine, both within and outside Maths lessons. For example, you could have brief counting sessions as part of morning welcome, transitions between lessons, en route to the PE hall or yard, while children are tidying up after breaks and/or when they are going home. For variation, consider including a counting can or counting stick.

Warm-up

D **Digital activity: The Orchard** *MAM* **Routines: Notice & Wonder, with Think-Pair-Share**

Display the poster and, using Think-Pair-Share, ask:

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

Record the children's responses to both questions on the board. 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.

If not suggested during 'share', ask:

- What do you think this unit will be about?

Main event

D **Digital activity: The Orchard** *MAM* **Routines: Reason & Respond, with Write-Hide-Show**

Display the poster and using Write-Hide-Show to collect feedback, click to play or ask the questions

below. (Depending on their responses in the warm-up activity, some of these may have already been answered.)

- Look at the apples on the table. How many in each crate?
- Show this on your MWB as a branching bond.
- Show this on your MWB as a number sentence.
- Imagine Mia takes away the crate that she is holding; show this on your MWB as a number sentence.
- Look at the crates of apples. Show the number of crates in each stack on your MWB as a branching bond.
- Write all the matching number sentences for the branching bond on your MWB.
- This is a fact family. How many number sentences in the fact family?

Teaching tip

If the children only come up with four sentences (e.g. two addition and two subtraction), prompt them to begin to recognise that, since the equals symbol indicates that the values on both sides are equal, then these values could also be swapped (e.g. $8 = 3 + 5$, $5 = 8 − 3$).

- Look at the swallows. Draw a branching bond to represent the swallows.
- Write all the matching number sentences for the branching bond on your MWB.
- About how many apples do you think Jay has in his basket? Write an estimate on your MWB.

D **Digital activity: Jay's Apples**
MAM Routines: Would This Work?, with Build it; Sketch it; Write it

Distribute countable resources to each pair. Open the activity, which begins by showing how many red and green apples Jay has in his basket (in the poster scene). First, ask the children to use Build it; Sketch it; Write it to model and solve the question: *How many apples does Jay have?* Allow sufficient time for the children to share how they modeled and solved the question. Then click to reveal each of the characters' approaches in turn. Using Think-Pair-Share, ask:

Assessment Opportunity

- Would this work?
- Do you think the character is correct? Why?

Finish by asking:

- What other number sentences could be written for this fact family?

Teaching tip

In their maths journals, the children could use images/words to record what they built, sketched or wrote.

Let's strengthen

Some children may benefit from the opportunity to review/reinforce the concepts of *parts* and *whole amount* from the Unit 2 Let's Strengthen Suggestions for Teachers.

Let's deepen

Challenge some children to identify and use the less common number sentence structures, where the equals symbol comes first (e.g. $a = b + c$, $a = b − c$).

C **Concrete activity: Fact Families**
MAM Routines: Build it; Sketch it; Write it; with Think-Pair-Share

Distribute collections of counting resources of only two different colours to the class. Demonstrate the activity below to the whole class initially.

Build it: Using countable resources of only two different colours, take a handful of items. Put the items of the same colour together. The double ten frames could also be used to arrange the resources.

Sketch it: Use a relevant model to explain the strategy used to get an answer. For example, if 4 red and 7 blue were picked, you could draw a branching bond and/or use the open number line (e.g. mark 7 at the start and jump on 4).

Write it: Ask the children to suggest some of the number sentences that would belong to this fact family. Record these on the board). Ask the children to justify their sentences using the concrete materials. Examples: $4 + 7 = 11$, $7 + 4 = 11$, $11 − 4 = 7$, $11 − 7 = 4$, etc.

Then the children carry out the activity in pairs, while recording on their MWBs or in their maths journals. How many different number sentences can they write each time?

Let's deepen

Challenge some children to create more than four number sentences, i.e. to also include less common number sentence structures, where the equals symbol comes first.

Examples: $11 = 4 + 7$, $11 = 7 + 4$, $4 = 11 - 7$, $7 = 11 - 4$

P **Pupil's Book page 13: Fact Families**

Optional consolidation and extension possibilities

Number Display The relevant maths language cards and samples of work from this and subsequent lessons could be used to make a Number Display.

Integration As the theme for this unit is The Orchard, there are lots of opportunities for cross-curricular integration. Language, English: Language and vocabulary development using the themes of The Orchard/Autumn; Language, Gaeilge: *An téama An Aimsir*, *Bia (torthaí)*. Science: The seasons and seasonal changes. Geography: People who work in the local environment; food production in the local environment; sustainability, buying and sourcing local produce, and eco-friendly farming practices.

Games Bank Play 'Cross Out Totals', 'Cover Up Totals', 'Domino Sixes' or 'Add Snap'.

Story Read *Sparrows Singing: Discovering Addition and Subtraction* by Loreen Leedy. (Count the sparrows to explore addition and subtraction within 20.)

Estimation Station Fill a transparent container with fewer than 30 small items of two different colours. Leave a box close by, where children can 'post' their estimated number sentences. After two or three days, ask a group to count the items and identify who had the closest estimate for the total. Then set up the station again with a different number of items.

Review and Reflect Use the Prompt Questions Poster.

Day 2, Lesson 2

Turnaround and Inverse

Focus of learning (with Elements)

- Demonstrates and justifies that addition is commutative (we can swap the order of the numbers being added and still get the same total), but subtraction is not (R)
- Explores and describes the inverse relationship between addition and subtraction (U&C)

Learning experiences

D Digital activity: Facts Within 15
MAM Routine: Quick Images, with Write-Hide-Show

D Digital activity: Turnaround Facts and the Inverse
MAM Routines: Concept Cartoon, with Think-Pair-Share; Build it; Sketch it; Write it

C Concrete activity: Turnaround and Inverse
MAM Routines: Concept Cartoon, with Reason & Respond; Build it; Sketch it; Write it

C Concrete activity: Branching Bonds and Number Sentences

P Pupil's Book page 14: Turnaround and Inverse

Equipment

- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- PCM 5: Branching Bond
- PCM 6: Part–Whole Bar Model
- 0–9 spinner, playing cards, or digital/online random number picker
- Sticky notes of two different colours

Maths language

- turnaround facts, opposite, inverse, strategy

Warm-up

D **Digital activity: Facts Within 15** *MAM* **Routine: Quick Images, with Write-Hide-Show**

Briefly reveal and then hide the image(s). Ask the children to record a matching number sentence or branching bond on their MWBs. Next, ask them to show their answers, and record these on the board. Be careful not to confirm the correct answer. Ask:

- Are there any answers that are unreasonable/ not likely because they don't make sense? Which ones? Why do you think this?
- Which answer do you agree with? Explain the strategy you used to get your answer.
- Did anybody use a different strategy?

- Does it make a difference which number we add first?

When there are no new strategies to discuss, reveal the image again to confirm the answer, using a variety of possible strategies.

Teaching tip

The term 'strategy' is used throughout this and many subsequent lessons. If necessary, remind the children that a strategy is simply a way to work something out. Remind them that the same question, calculation or problem may be successfully answered using many different strategies.

Main event

D **Digital activity: Turnaround Facts and the Inverse** *MAM* **Routines: Concept Cartoon, with Think-Pair-Share; Build it; Sketch it; Write it**

Display the Concept Cartoon and click each character to hear their statement. Facilitate Think-Pair-Share. Afterwards ask (if not answered already):

- What do you think? Explain why.
- Who do you not agree with? Why is it that they think that?
- How can we find out whose thinking is correct?

Ask the children to use Build it; Sketch it; Write it (using concrete materials, sketches and/or number sentences) to prove why some of the proposed number sentences work, and why some do not.

Teaching tip

In their maths journals, the children could use images/words to record what they built, sketched or wrote.

C **Concrete activity: Turnaround and Inverse**

Draw a large blank branching bond on the board. Randomly select two numbers from 0–10 as each of the parts (e.g. use the 0–9 spinner, playing cards, or a digital/online random number picker). Write each number on a sticky note of the same colour, and write the word 'part' underneath. Arrange these two sticky

notes at the base of the branching bond and ask the children to calculate the whole number at the top. Write the whole number on a sticky note of a different colour, and write the word 'whole' underneath. Place this sticky note at the top of the branching bond. Ask:

- How can we model this bond as addition? (Move the sticky notes, as suggested by the children, to create a number sentence. Record this separately on the board.)
- How can we model this bond as subtraction? (Repeat as above.)
- What are turnaround facts? (It means swapping the two parts that make a whole. Relate this back to the branching bond and sticky notes.)
- When might you use this strategy? Why? (In addition, the parts and the plus symbol are on one side of the equals symbol and the whole amount is on the other. The parts can be swapped around without affecting the whole amount. Often it can be more efficient to start with the larger part.)
- When can you not use this strategy? Why? (You cannot do this in a subtraction sentence, because the whole amount minus a part is on one side of the equals symbol, and the other part is on the other. You cannot swap the whole amount with a part.)

C **Concrete activity: Branching Bonds and Number Sentences**

Teaching tip

While this concrete activity is very similar to the one in Lesson 1, the focus this time should be on recognising and explaining that addition is commutative (turnaround facts), while subtraction is not, and explaining the inverse relationship between addition and subtraction.

Ask the children to work in pairs. Distribute PCM 5: Branching Bond and/or PCM 6: Part–Whole Bar Model to each pair. Distribute collections of counting resources of only two different colours to each pair. Child A takes a handful of items. The pair then represent the items as *part*, *part*, *whole* on one of the PCMs, for which they write matching number sentences. Ask one pair to demonstrate this for the whole class first. Ask:

- What are your parts? What is the whole amount?
- What addition sentences can you write for this bond? Are these turnaround facts?
- What subtraction sentences can you write for this bond? Are these turnaround facts?

Assessment Opportunity

- Can you use your knowledge of subtraction as being the inverse or opposite to addition to check your subtraction sentences?

Let's strengthen

Some children may benefit from extended and prolonged access to concrete materials (e.g. cubes, counters and frames) to further explore the concept of turnaround facts and the inverse. See the Unit 2 Let's Strengthen Suggestions for Teachers.

Let's deepen

Challenge some children to identify and refer to these relationships as *commutative* and *inverse*.

P **Pupil's Book page 14: Turnaround and Inverse**
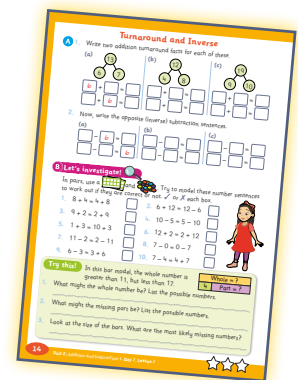
Optional consolidation and extension possibilities

Strategy Wall Add the Calculation Strategy Wall Card for Turnaround Facts and Subtraction (the inverse of addition) 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.

Home/School Links Book Pages 8–9 can be completed any time after this lesson.

Games Bank Play 'Cross Out Totals', 'Cover Up Totals', 'Domino Sixes' or 'Add Snap'.

Story Read *Mission: Addition* by Loreen Leedy. A reading of the story is available at: edco.ie/p4nf

Estimation Station Remind the children to submit estimates, count the items and/or set up a new station.

Review and Reflect Use the Prompt Questions Poster.

Days 3 and 4, Lesson 3

Doubles, Near Doubles and In-between Doubles

Focus of learning (with Elements)

- Explores a range of approaches (e.g. doubles) to support calculation strategies (U&C)
- Recognises and describes patterns that emerge in the addition of odd/even numbers (C)

Learning experiences

- **D** Digital activity: Doubles and More (1)
  MAM Routine: Quick Images, with Write-Hide-Show
- **D** Digital activity: Number Shapes *MAM Routines: Notice & Wonder, with Think-Pair-Share; Reason & Respond, with Write-Hide-Show*
- **C** Concrete activity: In-between Doubles
  MAM Routine: Build it; Sketch it; Write it
- **P** Pupil's Book page 15: Doubles, Near Doubles and In-between Doubles

Equipment

- Ten frames and counters
- Interlocking cubes
- Number shapes
- 0–9 spinner, playing cards, or digital/online random number picker
- Unit 2 Maths Language Cards

Maths language

- doubles, near doubles, in-between doubles, even, odd

Teaching tip

A printable version of Number Shapes is available at: edco.ie/ynyv.

Teaching tip

The children were introduced to doubles in Senior Infants and to near doubles in 1st Class. The work in this lesson will review these concepts and introduce in-between doubles. Therefore, it may be possible to move quickly though the doubles and near doubles activities in the Main Event section, depending on the children's confidence and competence.
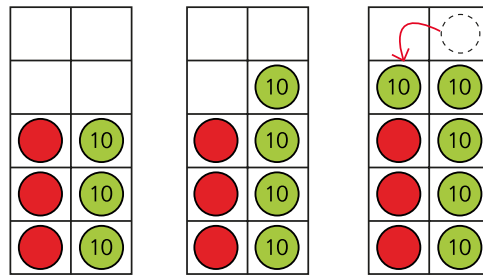
Double
3 + 3 = 6

Near Double
3 + 3 = 6
3 + 4 = 7

In-between Double
(make a double)

$$3 + 5 = 8$$
(4 and 4)

Some children may benefit from more concrete experiences with doubles and near doubles before moving on to in-between doubles. See Unit 2 Let's Strengthen Suggestions for Teachers.

Warm-up

D **Digital activity: Doubles and More (1) *MAM Routine: Quick Images, with Write-Hide-Show***

Briefly reveal and then hide the image(s). Ask the children to record a matching number sentence or branching bond on their MWBs. Next, ask them to show their answers, and record these on the board. Be careful not to confirm the correct answer. Ask:

- Are there any answers that are unreasonable/not likely because they don't make sense? Which ones? Why do you think this?
- Which answer do you agree with? Explain the strategy you used to get your answer.
- Did anybody use a different strategy?

When there are no new strategies to discuss, reveal the image again to confirm the answer, using a variety of possible strategies.

Main event

D **Digital activity: Number Shapes *MAM Routines: Notice & Wonder, with Think-Pair-Share; Reason & Respond, with Write-Hide-Show***

Display the poster and, using Think-Pair-Share, ask:

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

Teaching tip

If it is not already mentioned by the children, prompt them to identify the patterns they notice.

Record the children's responses to both questions on the board. 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.

Now ask the children to use Write-Hide-Show on their MWBs to respond to the questions below. (They write 'T' for true or 'F' for false.) After each response, ask individual children to justify/prove their answer. Click to play or ask:

- How many number shapes are used to make each number?
- Which of these represent doubles? Explain how you know.
- Which of these are not representing doubles?
- What name could be given to those that are not doubles? Explain why.
- True or false? 'The answers to the doubles are all even numbers.'
- True or false? 'The answers to the near doubles are all even numbers.'
- If the answers to the near doubles are not all even numbers, what are they?
- True or false? 'Doubles are made from two identical parts that are also even numbers.'
- True or false? 'Near doubles are made from two parts that are also odd numbers.'
- How can we use doubles to help solve near doubles?

Let's strengthen

Some children may benefit from more concrete experiences with doubles and near doubles before moving on to the in-between doubles. See the Unit 2 Let's Strengthen PCM.

C **Concrete activity: In-between Doubles**
MAM **Routine: Build it; Sketch it; Write it**

Ask the children to use the double ten frame and counters or interlocking cubes. Ask them to model and calculate in-between doubles totals (i.e. the totals of numbers two apart on the number line, such as 8 and 6, 7 and 9, and so on). You could randomly select a number from 0–9 as one of the parts (by using the 0–9 spinner). Ask/say:

- What is the number that is two larger (or smaller) than our picked number? Let that be our other part.
- Build it! Model the parts using your materials.
- Sketch it! Sketch these parts as a branching bond on your MWBs.
- Write it! Write these parts as a number sentence on your MWBs.

- Can you move an amount from one part to the other part to make a double fact? (Encourage the children to annotate this move on the number sentences, as shown below.)
- What is the whole amount?
- Why do you think these are called *in-between doubles*?
- What do you notice about the answers to all the in-between doubles?

Repeat as necessary.

$$\overset{7}{\cancel{8}} \ + \ \overset{7}{\cancel{6}} = \square \qquad \overset{8}{\cancel{7}} \ + \ \overset{8}{\cancel{9}} = \square$$

Teaching tip

In their maths journals, the children could use images/words to record what they built, sketched or wrote.

Let's strengthen

Some children may benefit from the support of a partner for this activity.

Let's deepen

Challenge some children to recognise that near doubles are always adjacent numbers on the number line. Challenge them to recognise that in-between doubles are always the adjacent odd numbers or even numbers on the number line, and their total is double the number that lies in between.

Let's strengthen

Some children may benefit from the support of concrete materials, a number line and/or 100 square to calculate the answers.

P **Pupil's Book page 15: Doubles, Near Doubles and In-between Doubles**
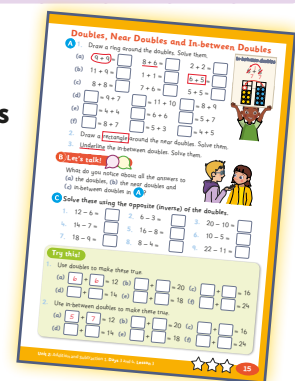
Optional consolidation and extension possibilities

Strategy Wall Add the Calculation Strategy Wall Card for Doubles, Near Doubles, In-between Doubles, and Subtract Using Doubles 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.

Maths Eyes Can you find examples of doubles/even numbers?

- What about examples of near doubles/odd numbers?
- Animals and minibeasts mostly have two, four, six or eight legs – which ones? (Think about the number of dots on a ladybird. Think about the number of leaflets on an ash, horse chestnut or sycamore leaf – most compound leaves have an odd number of leaflets.)

- What other examples of doubles/even numbers and near doubles/odd numbers can you think of? (A dozen eggs means how many eggs? How many in a half dozen? Two eyes, two ears; ten fingers/toes; dots on dominoes; items packaged as two rows of something, e.g. apples on trays; wheels on either side of a truck; dots on each side of Lego pieces, etc.)

Story Read *Two of Everything* by Lily Toy Hong. A reading of the story is available at: edco.ie/vbkm

Games Bank Play 'Doubles Snap', 'Doubles Plus/Less One' or 'Odds and Evens'.

Estimation Station Remind the children to submit estimates, count the items and/or set up a new station.

Review and Reflect Use the Prompt Questions Poster.

My Maths Fact File Page 121 could be completed anytime after this lesson.

Day 5, Lesson 4

Friendly Facts

Focus of learning (with Elements)

- Identifies simpler fact groups (U&C)
- Applies and justifies the zero property to support calculations (R)
- Draws from patterns and properties to determine unknown number facts from core facts (A&PS)

Learning experiences

- **D** Digital activity: Doubles and More (2)
  MAM Routine: Quick Images, with Write-Hide-Show
- **D** Digital activity: Friendly Facts *MAM Routines: Concept Cartoon, with Think-Pair-Share; Build it; Sketch it; Write it*
- **D** Digital activity: 9 + 7 Friendly Facts *MAM Routine: Would This Work?*
- **C** Concrete activity: Friendly Facts *MAM Routine: Reason & Respond*
- **C** Game: Add Snap
- **P** Pupil's Book page 16: Friendly Facts

Equipment

- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- Counting aids, such as 100 square or number lines
- Playing cards
- 0–9 spinners

Maths language

- friendly facts, fact groups, bonds of 10, zero

Warm-up

D **Digital activity: Doubles and More (2)** *MAM Routine: Quick Images, with Write-Hide-Show*

Briefly reveal and then hide the image(s). Ask the children to record a matching number sentence or branching bond on their MWBs. Next, ask them to

show their answers, and record these on the board. Be careful not to confirm the correct answer. Ask:

- Are there any answers that are unreasonable/not likely because they don't make sense? Which ones? Why do you think this?

- Which answer do you agree with? Explain the strategy you used to get your answer.
- Did anybody use a different strategy?

When there are no new strategies to discuss, reveal the image again to confirm the answer, using a variety of possible strategies.

Main event

D **Digital activity: Friendly Facts**
MAM **Routines: Concept Cartoon, with Think-Pair-Share; Build it; Sketch it; Write it**

Display the Concept Cartoon, in which the characters are debating which fact groups are the easiest. Facilitate Think-Pair-Share. Afterwards ask (if not answered already):

- What do you think? Explain why.
- Who do you not agree with? Why is it that they think that?
- How can we find out whose thinking is correct?

Ask the children to use Build it; Sketch it; Write it (using concrete materials, sketches and/or number sentences) to prove why they think certain fact groups are easier than others. The children could record this in their maths journals.

D **Digital activity: 9 + 7 Friendly Facts**
MAM **Routines: Would This Work?**

Display the activity. Begin by asking the children to demonstrate various ways that friendly facts could be used to solve 9 + 7, and then click to reveal the approaches of the programme characters. Ask:

Assessment Opportunity

- Do their strategies work? Explain why you think so.
- How do their strategies compare with your strategies?

C **Concrete activity: Friendly Facts**
MAM **Routine: Reason & Respond**

Distribute countable resources. Ask the children to work in pairs. They use their 0–9 spinner to get two random numbers, which they write on their MWBs with a plus symbol. Ask:

- Are these friendly facts? Explain why you think so.
- If not, can we use friendly facts to make them easier?

C **Game: Add Snap**

Play a whole-class demo game of 'Add Snap' from the Games Bank. As two cards are turned, ask:

- Are these friendly facts? Explain why you think so.
- If not, can we use friendly facts to make them easier?

While an answer will likely be calculated each time, the focus is on identifying efficient strategies and the possible connections with easier fact groups. For any expression that cannot be easily connected with a set of friendly facts, emphasise that in those cases, you should always start with the larger number and add/count on.

P **Pupil's Book page 16: Friendly Facts**

Display the page on the IWB. Ask individual children to suggest the group of facts they think is the easiest and to explain why they think this. For example, a child might suggest that adding 10 is easiest because even though 10 is a bigger number, when adding it on, you simply add a ten to the ones digit. Using the IWB's annotation tools, shade in both the vertical column and the horizontal row that corresponds to adding 10. Continue to do this for the other children's suggestions (which may include bonds of 10, doubles, near doubles, etc). Next, ask individual children to suggest which groups are the 'next easiest' and shade in the columns, rows and/or diagonals (e.g. for bonds of 10 and doubles groups. At the end, draw the children's attention to the facts that are unshaded, and how few there are.

Allow the children the opportunity to shade in the addition square on page 16 of the Pupil's Book, according to their preferences, and to complete the page.
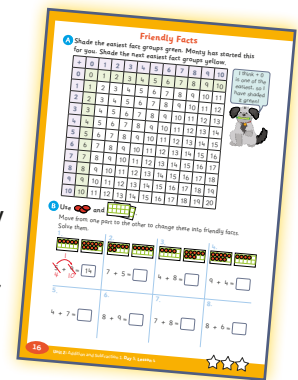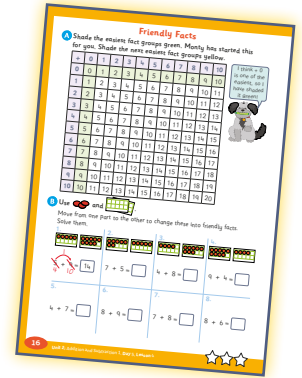
Let's strengthen

Some children may not be as confident with certain fact groups and, therefore, may have less shaded in green on the addition square. These children may benefit from more exploration and practice.

3 + 8 = 11; adding 9 as being very similar to adding 10 (if 10 + 7 = 17, then 9 + 7 must be 16).

(P) Pupil's Book page 16: Friendly Facts

Let's deepen

Challenge some children to suggest other fact groups that are 'friendly' for them. Examples: near bonds of 10 (totals of 11 and 9); if 3 + 7 = 10, then

Optional consolidation and extension possibilities

Strategy Wall Add the Calculation Strategy Wall Cards for: Adding and Subtracting 0, 1, 2, 9, 10; Add Using a Known Fact; and Bonds of 10, 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.

Games Bank Play 'Add 10 Snap', 'Add 1 Snap', 'Make 10' and/or any of the doubles games from the previous lesson.

Story Read *Mall Mania* by Stuart J. Murphy. A reading of the story is available at: edco.ie/jkmh

Estimation Station Remind the children to submit estimates, count the items and/or set up a new station.

Review and Reflect Use the Prompt Questions Poster.

Day 6, Lesson 5

Different Types of Subtraction

Focus of learning (with Elements)

- Begins to recognise and use different representations of subtraction, i.e. removal/take away, comparison/difference and complementary addition (U&C)

Learning experiences

- **C** Concrete activity: Number Talks Add Snap
  MAM Routines: Quick Images with Write-Hide-Show
- **D** Digital activity: Subtraction Stories *MAM Routine: Would This Work?, with Build it; Sketch it; Write it*
- **D** Video: Types of Subtraction *MAM Routine: Reason & Respond*
- **C** Concrete activity: Modeling Subtraction
  MAM Routine: Build it; Sketch it; Write it
- **D** Digital activity: Recognising Types of Subtraction
  MAM Routine: Reason & Respond

Equipment

- Playing cards
- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- Open number line

Maths language

- take away, missing part, difference, count on/back

Warm-up

C Concrete activity: Number Talks Add Snap
MAM **Routines: Quick Images with Write-Hide-Show**

Using a pack of playing cards, briefly reveal and then hide two in full view of the class (picture cards count as zero).

Ask the children to record the values, on their MWB, as a matching number sentence , with answers. Ask them to 'show' their answers, and record these on the board. Be careful not to confirm the correct answer. Ask:

● Are there any answers that are unreasonable/not likely because they don't make sense? Which ones? Why do you think this?

● Which answer do you agree with? Explain the strategy you used to get your answer.

● Did anybody use a different strategy?

When there are no new strategies to discuss, reveal the image again and confirm the answer using a variety of possible strategies.

Teaching tip

Place particular emphasis on identifying the friendlier facts or using nearby friendly facts to solve them.

Main event

D Digital activity: Subtraction Stories
MAM **Routine: Would This Work?, with Build it; Sketch it; Write it**

Distribute countable resources to each child. Display the activity. Ask the children to provide suitable subtraction stories to suit the given numbers (15, 9, __) and suggest models (i.e. use the concrete materials and/or write on their MWBs). Allow time for the children to share how they did it. Then click to reveal the approaches of the programme characters. Ask:

Assessment Opportunity

● Do their stories and strategies work?

● How do their strategies compare to your strategies?

Teaching tip

If it is not already suggested by the children, remind them of the inverse relationship between addition and subtraction and that $15 - 9 = \square$ will have the same answer as $9 + \square = 15$. Note that children tend to read the minus symbol ($-$) as 'take away' and to only visualise subtraction as scenarios where there is a total or whole amount from which an amount is deducted (i.e. How much is left?). The purpose of this activity is to open them up to alternative possible subtraction scenarios, other than just 'take away'. This concept will be further developed in later Addition and Subtraction units.

C Video: Types of Subtraction
MAM **Routine: Reason & Respond**

Play the video, pausing as required. Afterwards, ask:

● What type of subtraction do you see or use most often?

● What type of subtraction do you see or use least often?

C Concrete activity: Modeling Subtraction
MAM **Routine: Build it; Sketch it; Write it**

Distribute countable resources to each child. Choose two random numbers from 0–20. Ask the children to use the concrete materials to explore different ways to model subtraction. The children could also use the number line on the reverse of their MWBs.

For example, for the numbers 14, 8, __:

● Take Away Subtraction: 14 cubes take away 8; 14 on the number line, count back 8; $14 - 8 = \square$

● Difference Subtraction: 14 cubes and 8 cubes side by side to count the difference between them; mark 14 on the open number line, mark 8 on the open number line, count on or back to identify the difference (distance) between the 2 numbers; $14 - 8 = \square$

● Think Addition Subtraction: 8 cubes, how many more do I need to have 14? 8 on the number line, how many must I count forward to get to 14? $8 + \square = 14$

Let's deepen

Challenge the children to orally and/or pictorially create matching subtraction stories for their models, similar to those used in the video. Encourage them also to use a variety of models for their stories.

Ask:

- In what way are the different types of subtraction similar? (e.g. You can use cubes and/or number lines to show all of the types.)
- In what way are they different? (e.g. The matching stories will be different. You can use the cubes and number lines in different ways.)

Teaching tip

In their maths journals, the children could use images/words to record what they built, sketched or wrote.

Let's strengthen

Some children may benefit from focusing only on Think Addition Subtraction or Difference Subtraction, as they should already be quite familiar with understanding subtraction as 'take away'.

D **Digital activity: Recognising Types of Subtraction** *MAM Routine: Reason & Respond*

This is a multiple-choice activity to recognise the types of subtraction. For each question, read the number story and select the correct answer.

Optional consolidation and extension possibilities

Games Bank Play 'Cross Out Subtraction' or 'Difference Snap'.

Estimation Station Remind the children to submit estimates, count the items and/or set up a new station.

Review and Reflect Use the Prompt Questions poster.

Day 7, Lesson 6

Checking Calculations

Focus of learning (with Elements)

- Checks addition and subtraction calculations, using a range of strategies, including inverse operations, reasonableness, and known facts (U&C)

Learning experiences

- **D** Digital activities: Subtraction (1) & (2)
  MAM Routine: Number Strings, with Write-Hide-Show
- **D** Digital activity: Checking Calculations *MAM Routines: Would This Work? with Build it; Sketch it; Write it*
- **C** Concrete activity: Addition as the Inverse to Subtraction *MAM Routine: Build it; Sketch it; Write it*
- **C** Concrete activity: Two Truths and a Lie
- **P** Pupil's Book page 17: Checking Calculations

Equipment

- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- Counting aids, such as 100 square or number lines
- 0–9 spinner, playing cards, or digital/online random number picker
- Sticky notes of two different colours

Maths language

- calculation

Warm-up

D **Digital activities: Subtraction (1) & (2)**
MAM Routine: Number Strings, with Write-Hide-Show

Choose one PowerPoint presentation: Subtraction (1) or Subtraction (2). Play the presentation, revealing the first part of the chosen number string. Tell the children to record their answers on their MWBs. Next, ask them to show their answers, and record these on the board. Be careful not to confirm the correct answer. Ask:

- Are there any answers that are unreasonable/ unlikely because they don't make sense? Which ones? Why do you think this?
- Which answer do you agree with? Explain the strategy you used to get your answer.
- Does anybody have a different proof?

Repeat with the second and third parts of the number string.

Main event

D **Digital activity: Checking Calculations**
MAM Routines: Would This Work? with Build it; Sketch it; Write it

Distribute countable resources to each child. Display the activity. Ask the children to consider $18 - 9 = \boxed{11}$ and to suggest models to prove their answer (i.e. use the concrete materials and/or sketch or write on their MWBs). Allow time for the children to share their proof. Then click to reveal the approaches of the programme characters. Ask:

- Do their strategies work? Explain why you think so.
- How do their strategies compare with your strategies?

C **Concrete activity: Addition as the Inverse to Subtraction**

Draw a large blank branching bond on the board. Randomly select two numbers from 0–10 as each of the parts (e.g. use the 0–9 spinner). Write each number on a sticky note of the same colour, and write 'part' underneath. Arrange these two sticky notes at the base of the branching bond and ask the children to calculate the whole number at the top. Write the whole number on a sticky note of a different colour, and write the word 'whole' underneath. Place this sticky note at the top of the branching bond. Ask:

- How can we model this bond as addition? (Move the sticky note, as suggested by the children, to create a number sentence – horizontal or column method/vertical calculation. Record this separately on the board. Return the sticky notes to the branching bond.)
- How can we model this bond as subtraction? (Repeat as above.)
- Can you explain what is meant by 'addition and subtraction are the inverse of each other'? (They

are opposite operations. To undo/reverse a subtraction/addition calculation, you can do the inverse/opposite operation.)

- What can you build to show this?
- What can you sketch to show this?
- What can you write to show this?

Remind the children how a fact family can have different types of number sentences, addition and subtraction (Lessons 1 and 2). Ask:

- When we write an addition sentence, what is always the same? (The parts and the plus symbol are on one side of the equals symbol and the whole amount is on the other.)
- When we write a subtraction sentence, what is always the same? (The whole amount minus a part is on one side of the equals symbol, and the other part is on the other side.)

C **Concrete activity: Two Truths and a Lie**

The children write out three number sentences, two of which are true and one of which is a lie. They swap with a partner to see if they can identify the 'lie' each time. Ask:

Assessment Opportunity
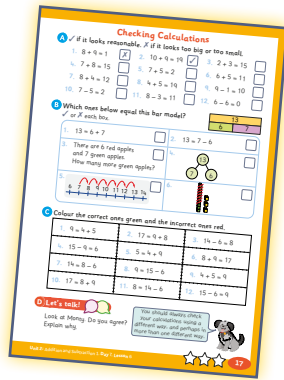
- What number facts can you use to prove it is a lie?

Let's strengthen

Some children may benefit from the support of a partner for this activity. The children could work in pairs, and each pair swaps their number sentences for another pair's sentences.

Let's deepen

Challenge some children to use larger numbers.

Let's strengthen

Some children may need to be reminded that they should not check their calculations using the same method as that used originally; rather they should use a different approach.

Let's deepen

Challenge some children to examine answers for their reasonableness, thereby saving them the need to always have to calculate the correct answer.

Optional consolidation and extension possibilities

Games Bank Play 'Cross Out Total and Difference', 'Cover Up Total and Difference' or 'Difference Snap'.

Estimation Station Remind the children to submit estimates, count the items and/or set up a new station.

Review and Reflect Use the Prompt Questions Poster.

Day 8, Lesson 7

Adding Three One-digit Numbers

Focus of learning (with Elements)

- Applies and justifies the associative property to support calculations (R)
- Applies knowledge of 'friendly' facts (doubles, bonds of 10, etc.) to perform computations efficiently (R)

Learning experiences

D Digital activities: Subtraction (1) & (2)
MAM Routines: Number Strings, with Write-Hide-Show

D Digital activity: Adding Three Numbers
MAM Routines: Would This Work? with Build it; Sketch it; Write it

C Concrete activity: Adding Three Numbers
MAM Routines: Think-Pair-Share, with Build it; Sketch it; Write it

P Pupil's Book page 18: Adding Three One-digit Numbers

Equipment

- Ten frames and counters
- Manipulatives for counting, such as bears, links, cubes, counters and lollipop sticks
- Counting aids, such as 100 square or number lines
- 0–9 spinner, playing cards, or digital/online random number picker

Maths language

- There is no new maths language for this lesson.

Warm-up

D **Digital activities: Subtraction (1) & (2)**
MAM Routines: Number Strings, with Write-Hide-Show

Choose one PowerPoint presentation: Subtraction (1) or Subtraction (2). Play the presentation, revealing the first part of the chosen number string. Tell the

children to record their answer on their MWBs. Next, ask them to show their answers, and record these on the board. Be careful not to confirm the correct answer. Ask:

● Are there any answers that are unreasonable/ unlikely because they don't make sense? Which ones? Why do you think this?

● Which answer do you agree with? Explain the strategy you used to get your answer.

● Does anybody have a different proof?

Repeat with the second and third parts of the number string.

Main event

D **Digital activity: Adding Three Numbers**
MAM Routines: Would This Work? with Build it; Sketch it; Write it

Distribute countable resources to each child. Display the activity. Ask the children to consider how to add three numbers and to suggest models to prove their answer (i.e. use the concrete materials and/or sketch or write on their MWBs). Allow time for the children to share their proof. Then click to reveal the approaches of the programme characters. Ask:

● Do their strategies work? Explain why you think so.

● How do their strategies compare with your strategies?

● Does it make a difference to the answer?

● Are there any strategies that you thought were more efficient? Explain why.

C **Concrete activity: Adding Three Numbers**
MAM Routines: Think-Pair-Share, with Build it; Sketch it; Write it

Distribute a ten frame and counters to each pair. Randomly select three numbers from 0–10 as each of

the parts (e.g. use playing cards, or a digital/online random number picker). Ask the children to work in pairs. Tell them to show the numbers using their ten frame. Ask:

● Does the order in which we add these numbers affect the answer?

● So, which two numbers will you choose to add together first? Why?

P **Pupil's Book page 18: Adding Three One-digit Numbers**
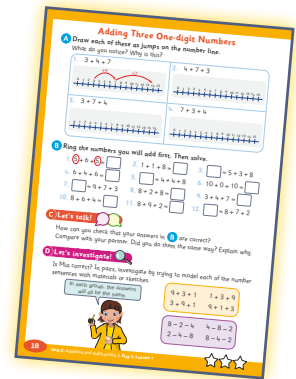
Let's deepen

Challenge some children to identify more than one known fact that they could use to help them find the unknown fact.

Optional consolidation and extension possibilities

Let's Deepen Create maths questions for the Headline Story; see Unit 2 Let's Deepen PCM: Addition and Subtraction 1.

Games Bank Play 'Add Snap' using the top three cards.

Story Read *Mall Mania* by Stuart J. Murphy. A reading of the story is available at: edco.ie/jkmh

Estimation Station Remind the children to submit estimates, count the items and/or set up a new station.

Review and Reflect Use the Prompt Questions Poster.

Day 9, Lesson 8

Related Facts

Focus of learning (with Elements)

- Draws from patterns and properties to derive unknown number facts from core facts (e.g. multiples of 10) (A&PS)
- Solves problems using known number and property facts and knowledge of mental strategies involving multiples of ten, up to 100 (A&PS)

Learning experiences

- **D** Digital activities: Adding Three Numbers
  MAM **Routines: Number Strings, with Write-Hide-Show**
- **D** Digital activity: Related Facts (1) and (2)
  MAM **Routines: Would This Work? with Build it; Sketch it; Write it**
- **C** Concrete activity: Multiples of Ten
  MAM **Routine: Build it; Sketch it; Write it**
- **P** Pupil's Book page 19: Related Facts

Equipment

- Place value materials such as place value counters and base ten blocks

Maths language

- related facts, multiples of ten

Warm-up

D **Digital activity: Adding Three Numbers**
MAM **Routines: Number Strings, with Write-Hide-Show**

Play the PowerPoint presentation, revealing the first part of the chosen number string. Tell the children to record their answers on their MWBs. Next, ask them to show their answers, and record these on the board. Be careful not to confirm the correct answer. Ask:

- Are there any answers that are unreasonable/ unlikely because they don't make sense? Which ones? Why do you think this?
- Which answer do you agree with? Explain the strategy you used to get your answer.
- Does anybody have a different proof?

Repeat with the second and third parts of the number string.

Main event

D **Digital activities: Related Facts (1) and (2)**
MAM **Routines: Would This Work? with Build it; Sketch it; Write it**

Distribute the place value resources (tens and ones). Display the activities. Ask the children to suggest ways to solve these two scenarios:

Assessment Opportunity

1. How many apples are there in the boxes of ten altogether?
2. How many are left?

Ask them also to suggest models to prove their answer (i.e. use the concrete materials and/or sketch or write on their MWBs). Allow time for the children to share their proof. Then reveal the approaches of the characters. Ask:

- Do their strategies work? Explain why you think so.
- How do their strategies compare to your strategies?
- Are there any strategies that you thought were more efficient? Explain why.

Let's strengthen

Using place value materials will help to illustrate the connectedness between operations with one-digit numbers and the corresponding two-digit multiples of ten. See Unit 2 Let's Strengthen Suggestions for Teachers and the Unit 2 Let's Strengthen PCM.

C **Concrete activity: Multiples of Ten**
*MAM* **Routine: Build it; Sketch it; Write it**

Explain to the children that a local shop wants to get a delivery of 100 apples, and they want to get more red apples than green apples. Ask the children to suggest a combination that they could get of green and red apples, if a box of ten contains either red or green apples (i.e. not mixed). Then ask the children to work in pairs and to find other possible combinations, using their place value resources as necessary.

Teaching tip

In their maths journals, the children could use images/words to record what they built, sketched or wrote.

Let's deepen

Challenge the children to work out all the possible combinations.

P **Pupil's Book page 19: Related Facts**
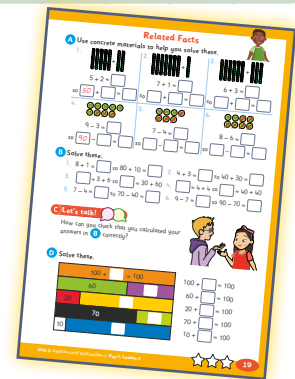
Optional consolidation and extension possibilities

Strategy Wall Add the Calculation Strategy Wall Card for Related Facts 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

Games Bank Play 'Cross Out Tens Totals' or 'Cross Out Tens Subtraction'.

Estimation Station Remind the children to submit estimates, count the items and/or set up a new station.

Review and Reflect Use the Prompt Questions Poster.

My Maths Fact File The top sections of page 122 could be completed anytime after this lesson.

Day 10, Lesson 9

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.

Let's talk!	**Let's play!**
Use Think-Pair-Share to review the unit.	Play a game from the Games Bank.
Individual children could present examples of their own drawings/work/constructions to the class, and talk about what they have learned.	Remind the children to use the Estimation Station.
Maths language	**Maths strategies and models**
Ask the children to explain the following terms (perhaps using drawings on their MWBs):	Ask the children to give examples of the strategies they used in this unit, e.g. count on/back, turnaround (commutative) facts, using the opposite (inverse) operation, using friendly facts (including doubles, near doubles, in-between doubles), using related facts (for example, to solve 30 + 40).
fact families, *number sentence*, *friendly facts*, *part*, *whole (amount)*, *odd/even numbers*, *(un)reasonable estimate*.	
Ask them to provide words that can be used for each operator below:	Ask the children to give and/or draw examples of the maths models they used in this unit, e.g. concrete materials, ten frames, 100 squares, number lines/paths, place value grids, place value discs, branching bonds, bar models, number sentences, column method, etc. Which strategies and models did they prefer and why?
● (+), add, added, plus, total, altogether,	
● (–), subtract, take away, minus, left, compare, difference, greater/less than, (how many) more/less	
Use the maths language cards for this unit to revise the key terms. For example: if the image and text are cut apart, can the children match them?	
Complete the My Maths Fact File on Page 121 of the Pupil's Book.	
Progress Assessment Booklet	**Maths eyes**
Complete Questions 7–10 on pages 9–10. Alternatively, these can be left to do as part of a bigger review during the next review week.	Go for a walk through the school. Ask the children to identify situations that could be represented using number sentences, for example:
	● How many white cars and black cars are there in the car park?
	● Male teachers + Female teachers = Total teachers
	● Total spaces − Spaces with cars = Empty spaces
	Ask the children to bring paper to record their observations.
	Optional: Take photos of different scenarios to display/compile in a digital slideshow.
Let's strengthen	**Let's deepen**
Identify children who might benefit from extra practice with some of the key concepts or skills in this unit. Consult Unit 2 Let's Strengthen Suggestions for Teachers and the Unit 2 Let's Strengthen PCM.	Select one of the cognitively challenging tasks on the Unit 2 Let's Deepen PCM (this could be displayed on the class board) and encourage the children to work together in groups to model solutions for the task. Alternatively, each group could choose their own preferred task to solve.

Notes