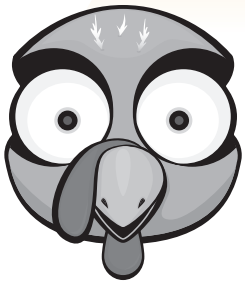
Grade 2, Module 6

ORIGO STEPPING STONES

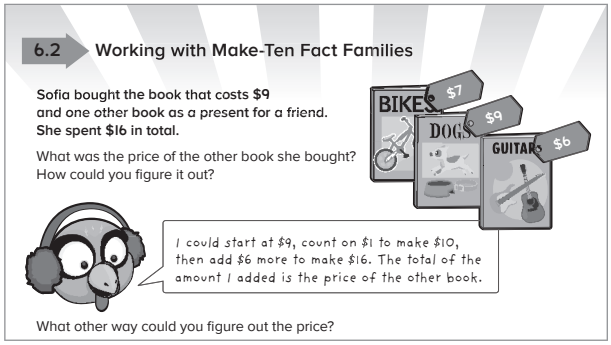
Core Focus

- Exploring and using the make-ten strategy for addition
- Using place value to add two-digit numbers
- Measuring length in centimeters and meters
- Using line plots to record length



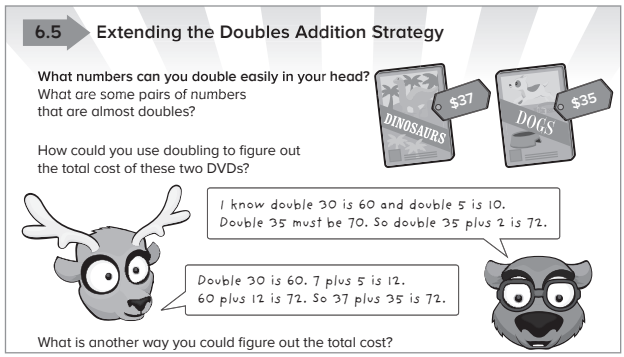
Addition

- Becoming confident with powerful mental strategies such as make-ten and use-doubles is important as addition and subtraction are extended to larger numbers.
- Paper and pencil computation will come later, once students have developed skill and understanding with simple mental calculation.
- Students use the make-ten strategy they learned in Grade 1 to solve unknown addend stories (e.g. stories where the total and one part are known but the other part is unknown, as shown in the example below).



In this lesson, students use the make-ten addition strategy to figure out the unknown value.

- Students use a number line to show their thinking when using the make-ten strategy to add a two-digit and one-digit number. They break apart the one-digit number to jump from the two-digit number to the nearest multiple of ten, and then add on the rest.
- Students extend the use-doubles strategy to adding two-digit numbers (e.g. *see* 22 + 20 and *think* double 20 + 1).



In this lesson, students use doubles and near-doubles to solve addition problems.

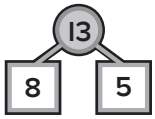
- Students use place-value strategies that involve adding the parts (tens and ones) of one or both numbers (e.g. *see* 57 + 26, *think* 57 + 20 + 6; or 50 + 20 + 7 + 6, that is 70 + 13).

Ideas for Home

- To reinforce the make-ten strategy, use a deck of playing cards and separate the 4–6 cards into one stack and the 7–9 cards into another stack. Flip over the top card from each stack and ask your child to find the total. Ask them to describe their strategy (e.g. for the cards 4 and 7, your child might say "7 and 3 make 10, and one more makes 11").
- Name a quantity under 20 and tell your child one part. Ask them to name the other part and explain how they know. Challenge your child to write the four related facts for the fact family.

Glossary

- Students identify the parts and total, then complete the number sentences that create a **fact family**.



8 + 5 = 13
5 + 8 = 13
13 − 8 = 5
13 − 5 = 8

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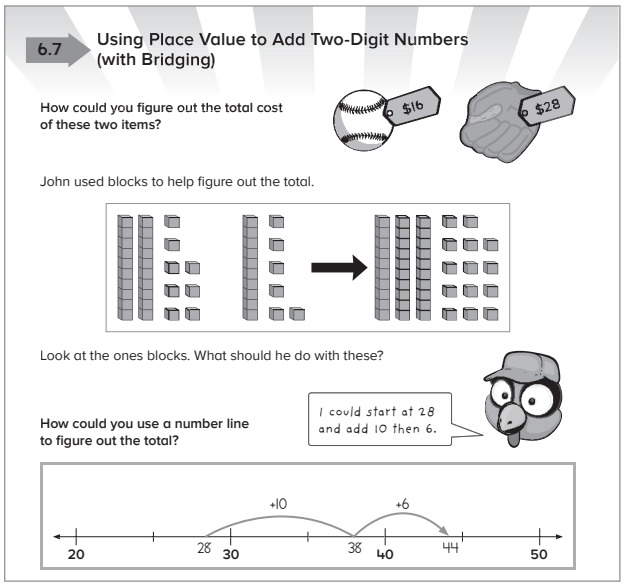
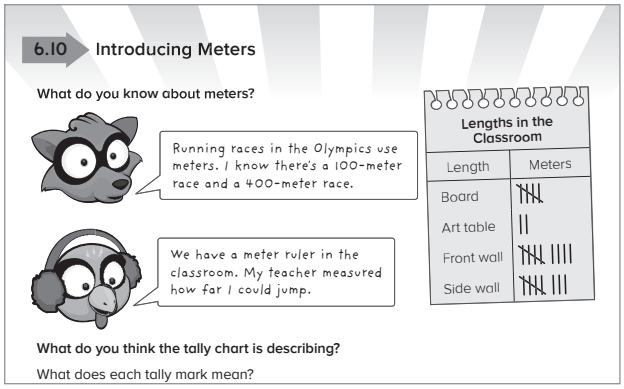
- Base-10 blocks and number lines are used to make students' thinking visible.



In this lesson, students break one or both numbers into tens and ones.

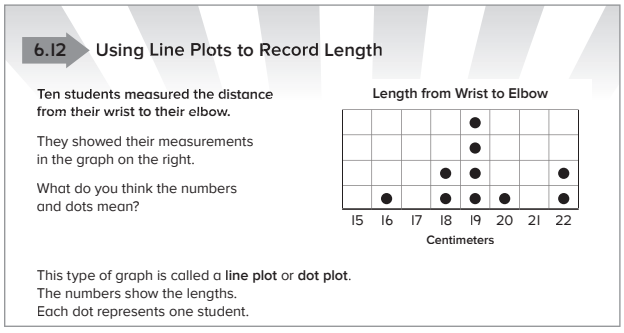
Metric Length and Data

- Meters and centimeters are introduced. It is helpful for students to have benchmarks to think about when estimating metric lengths. E.g. your finger may be about 1 cm thick and a doorway may be a bit more than 2 m high.



In this lesson, students measure and compare the lengths of longer objects.

- Students measure lengths in centimeters and record the data in a line plot (or dot plot).



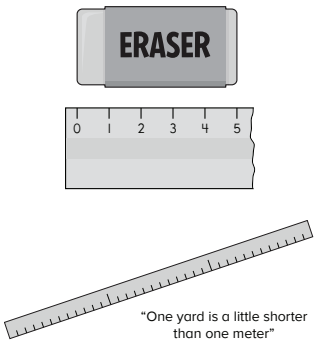
In this lesson, students measure and compare the lengths of longer objects.

Ideas for Home

- Use a ruler marked with both inches and centimeters to measure the length of some favorite objects at home. Ask your child to compare the different results, e.g. a toy might be 11 inches, and 28 centimeters long.
- Cut a 10 cm length of string or paper. Ask your child to estimate and then use the string or paper to measure the distance between two objects, e.g. the distance between a lamp and a book on the shelf.
- Ask your child to toss a small ball or beanbag and estimate the distance of the throw to the nearest whole meter. They then check it with a ruler.

Glossary

- A **centimeter** (cm) is about half an inch.
- A **meter** (m) is a little longer than one yard.
- 100 cm = 1 m
- Students use a ruler to measure classroom objects in centimeters.



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