

6

NumberSense

PROMPTS, STRATEGIES & SOLUTIONS

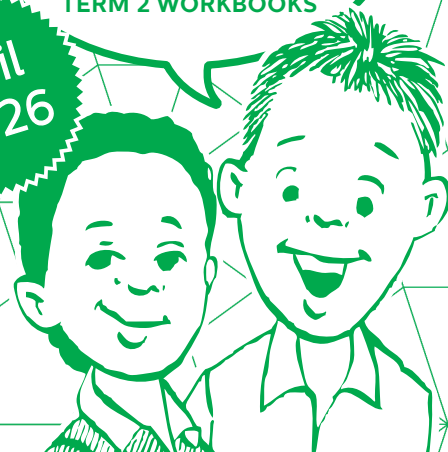
English

Teacher's Guide

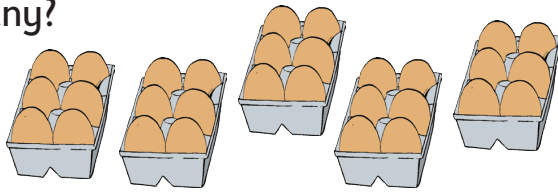
**MAKING
SENSE OF
NUMBERSENSE**

PROMPTS, STRATEGIES
& SOLUTIONS FOR THE
TERM 2 WORKBOOKS

April
2026

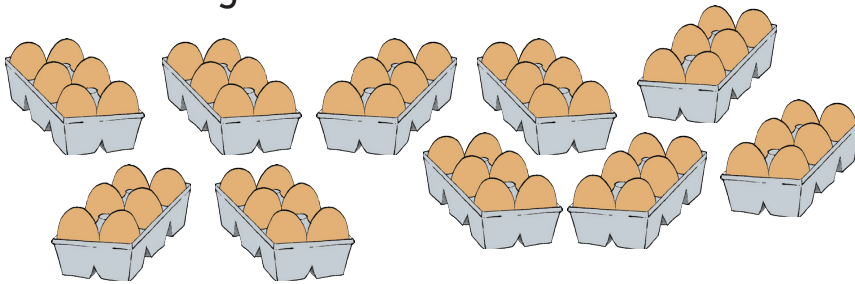


1. How many?



30 eggs

2. How many?



60 eggs

double

3. Complete.

- 6 ; 12 ; 18 ; 24 ; 30 ; 36 ; 42 ; 48 ; 54 ; 60
- 3 ; 6 ; 9 ; 12 ; 15 ; 18 ; 21 ; 24 ; 27 ; 30 ;
33 ; 36 ; 39 ; 42 ; 45 ; 48 ; 51 ; 54 ; 57 ; 60

4. Make the sides equal. ? *Can you see the pattern?*

← p. 1

$$20 - \underline{1} = 19$$

$$1 = \underline{20} - 19$$

$$20 - \underline{2} = 18$$

$$2 = \underline{20} - 18$$

$$20 - \underline{3} = 17$$

$$3 = \underline{20} - 17$$

$$20 - \underline{4} = 16$$

$$4 = \underline{20} - 16$$

$$20 - \underline{5} = 15$$

$$5 = \underline{20} - 15$$

$$20 - \underline{6} = 14$$

$$6 = \underline{20} - 14$$

? *Can you use the first row to help you?*

5. Extend and colour the pattern.





Things to think about



Activity 1: Counting in groups

Each day the children should be doing rational counting activities during the teacher-led time to prepare them for the counting on the page. What counting activities would prepare the children for this page?



Counting support resource

Suggested activity:

Download and print the egg box counting icons from the website. Place 8 egg box icon cards on the mat. Ask the children:

? How many egg boxes are there?

💡 Eight

? How many eggs are there?

💡 Forty-eight

? How did you count them?

💡 I counted in 6s.

💡 I counted them in 2s.

Place 8 more egg box icon cards on the mat. Ask the children:

? How many boxes are there now?

💡 Sixteen

? How many eggs are there?

💡 Ninety-six

? How did you count them?

💡 I counted in 2s. It took a long time.

? Did anyone have a faster way?

💡 I used what we just did to help me.

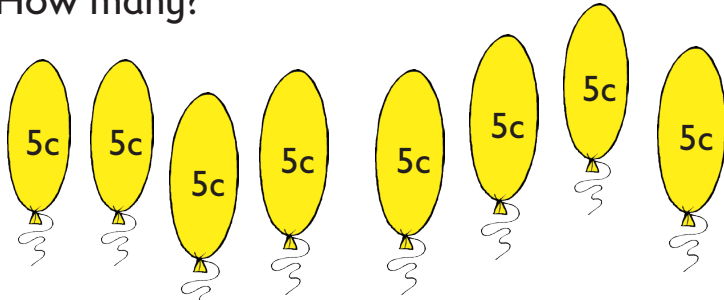
I know 8 boxes = 48 eggs.

16 is double 8,

so 16 boxes = 96

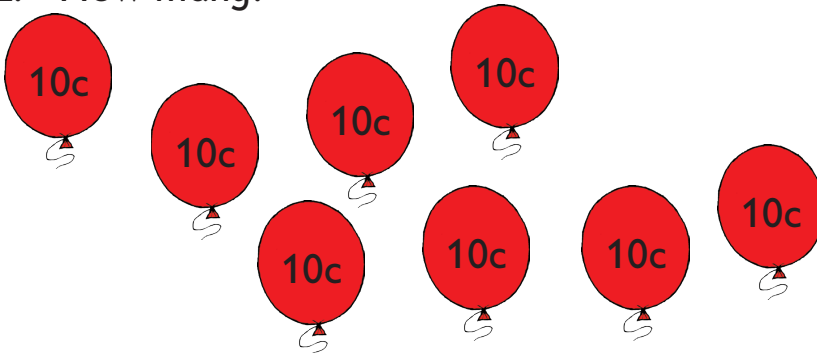
? What do you notice?

1. How many?



8 balloons
5 c per balloon
40 c

2. How many?




8 balloons
10 c per balloon
80 c



3. Complete.

- 5 ; 10 ; 15 ; 20 ; 25 ; 30 ; 35 ; 40
- 10 ; 20 ; 30 ; 40 ; 50 ; 60 ; 70 ; 80



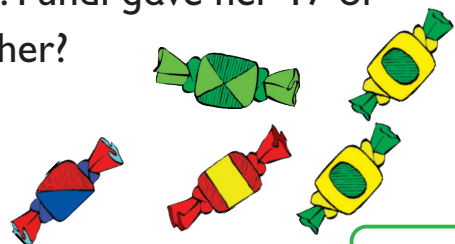
 This is the same as activities 1 and 2.

4. Choose a number between 10 and 20.

- Write your number here.
- How much must you add to your number to make it 20?
- How much must you add to your number to make it 30?
- Add 10 to your number.

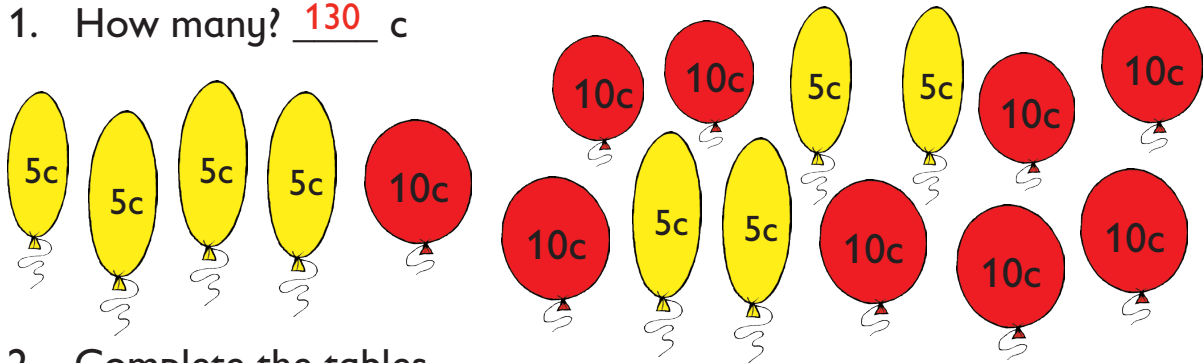
5. Fundi and Jan gave Granny 44 sweets. Fundi gave her 17 of these sweets. How many did Jan give her?

27



⊗ p. 3

1. How many? 130 c



2. Complete the tables.

5c coins	1	2	4	8	10	11	12	13
Cents	5	10	20	40	50	55	60	65

5c coins	1	2	10	11	12	13	14	15
Cents	5	10	50	55	60	65	70	75

3. Make the sides equal. *? Can you see a pattern?*

$$30 - \underline{21} = 19$$

$$11 = \underline{30} - 19$$

$$30 - \underline{12} = 18$$

$$12 = \underline{30} - 18$$

$$30 - \underline{13} = 17$$

$$13 = \underline{30} - 17$$

$$30 - \underline{14} = 16$$

$$14 = \underline{30} - 16$$

$$30 - \underline{15} = 15$$

$$15 = \underline{30} - 15$$

$$30 - \underline{16} = 14$$

$$16 = \underline{30} - 14$$

⊗ p. 1



4. How many socks? 44

How many children? 22





Things to think about



Activity 2: Tables

By now, children should be comfortable with completing tables. Be curious about the strategies they use. Do they use doubling or what they've already done to help them?

Remember to ask questions like 'Can you explain how you did it?' 'Is there something you have already done that can help you?'



Can you explain how you did it?



I counted in 5s.

2. Complete the tables.

double double

5c coins	1	2	4	8	10	11	12	13	14	15	20
Cents	5	10	20	40	50	55	60	65	100	100	100

5c coins	1	2	10	11	12	13	14	15	20
Cents	5	10	50	55	60	65	70	75	100



5 more cents = 1 more coin.



I know 2 coins doubled is 4 coins.

2 coins = 10c.

4 coins = 10c doubled = 20c

5 more 5 more



I already know that:
10 coins = 50c and 1 coin = 5c so,
11 coins = 50c plus 5c = 55c



I used the top table to help me complete the bottom table.

Activity 4: Multiplication and division-type problems



How did you count the socks?



I counted in 2s.



How many socks does one child wear? 2 children? 3 children?



What do you notice about the number of socks and the number of children.



The number of children is half the number of socks.



The number of socks is double the number of children.



p. 2

1. How many?



130 cups

2. Complete.

95 ; 96 ; 97 ; 98 ; 99 ; 100 ; 101 ; 102 ; 103 ; 104 ;
105 ; 106 ; 107 ; 108 ; 109 ; 110 ; 111 ; 112 ; 113 ; 114 ;
115 ; 116 ; 117 ; 118 ; 119 ; 120 ; 121 ; 122

3. Complete the table and the number sentences.

p. 15

Children	1	2	5	10	20	30	31	32
Hands	2	4	10	20	40	60	62	64

double

Notice the link.

Children	5	10	20	22	24	26	28	30
Hands	10	20	40	44	48	52	56	60

double

$5 \times 2 = \underline{10}$

$7 \times 2 = \underline{14}$

$6 \times 2 = \underline{12}$

$8 \times 2 = \underline{16}$

Not all the answers can be found in the table. The children need to make a plan to work the others out.

4. There are 41 children in Yusuf's class.
 18 are boys. How many are girls? **23**



p. 3



Things to think about



Activity 3: Tables

When tables occur in pairs on a page, there is often a relationship between them. In this case, the two tables describe the same relationship (see other examples on pages 11 and 15). It is hoped that the children will use the values in one table to help them complete the missing values in the other table.

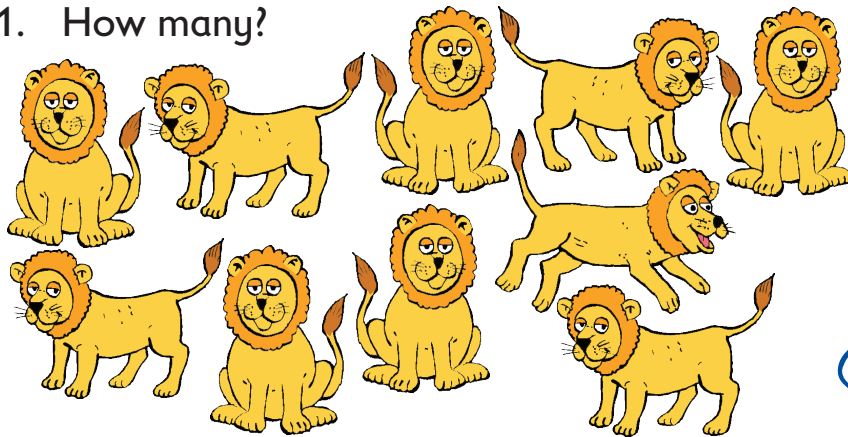
Be curious about the strategies the children are using to complete this table. They should be using increasingly efficient strategies at this stage (not just repeated addition).



Assessments

The activities on this page are all familiar to the children at this stage. The page could be done independently and marked as an assessment.

1. How many?



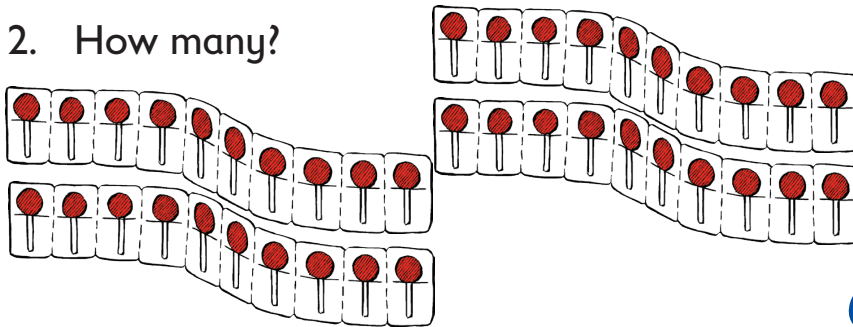
10 lions

4 paws per lion

40 paws



2. How many?



4 sucker strips

10 suckers per strip

40 suckers

3. Complete.

- 4 ; 8 ; 12 ; 16 ; 20 ; 24 ; 28 ; 32 ; 36 ; 40
- 10 ; 20 ; 30 ; 40

This is a short chain. The first number and the last number are given. You can choose the numbers and operations in between.



4. Complete. The first one has been done for you.

? How did you complete the calculations?

$$\boxed{12} \rightarrow + 8 \rightarrow \boxed{20} \rightarrow + 2 \rightarrow \boxed{22}$$

$$\boxed{12} \rightarrow + 8 \rightarrow \boxed{20} \rightarrow + 12 \rightarrow \boxed{32}$$

$$\boxed{12} \rightarrow + 30 \rightarrow \boxed{42} \rightarrow + 3 \rightarrow \boxed{45}$$

$$\boxed{15} \rightarrow + 20 \rightarrow \boxed{35} \rightarrow + 8 \rightarrow \boxed{43}$$

💡 I added 10s and then added what was still needed.

💡 I completed the 10s to make calculating easier.



Things to think about



Activity 4: Short number chains

Although this is the first short number chain in grade 2, children have been completing these since workbook 2.

The purpose of short number chains is for children to realise that numbers can be built up in a range of different ways. The chains help the children to see that there are steps to get from the first number to the final one.

Ask the children how they chose the steps.

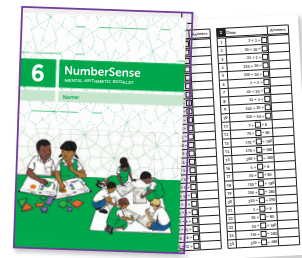
Possible strategies include:

First completing the multiple of 10 and then adding the difference (see the first 2 examples in activity 4).

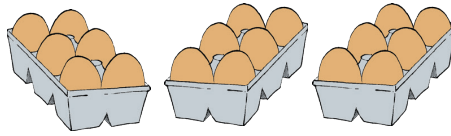
Adding a multiple of 10 and then adjusting (see the second two examples in activity 4).

Be curious as to how children complete these and encourage and share completing 10 as an efficient strategy.

The daily mental arithmetic routine will support this.



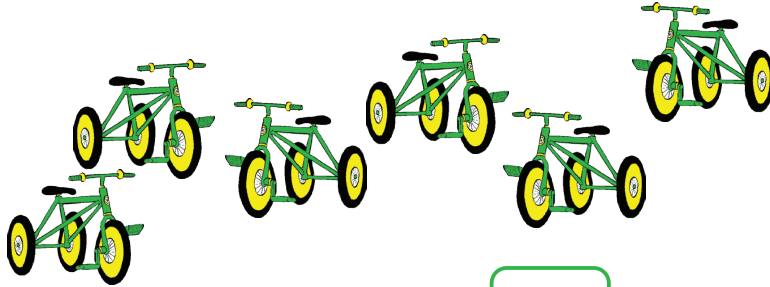
1. How many?



3 boxes

6 eggs per box

2. How many?



18 eggs

$18 = 3 \times 6$

6 tricycles

3 wheels per tricycle

18 wheels

$18 = 6 \times 3$

3. Complete the table.

p. 15

Egg boxes	1	2	4	5	6	7	8	10	× 6
Eggs	6	12	24	30	36	42	48	60	

4. Make the sides equal. ? What do you notice?

$2 \times 6 = \underline{12}$

$6 \times 2 = \underline{12}$

$3 \times 6 = \underline{18}$

$6 \times 3 = \underline{18}$

$4 \times 6 = \underline{24}$

$6 \times 4 = \underline{24}$



5. Complete.

p. 38

16	→ +	→	□	→ +	→	50
18	→ +	→	□	→ +	→	40
22	→ +	→	□	→ +	→	50
58	→ -	→	□	→ -	→	30
42	→ -	→	□	→ -	→	20

6. Go as far as you can.

2 ; 4 ; 6 ; 8 ; 10 ; 12 ; 14 ; 16 ; 18 ; 20 ; 22 ; 24 ; 26 ; 28 ; 30 ; 32 ; 34 ;



Things to think about



Activity 4: Make the sides equal.

The purpose of the make the sides equal activity is to reinforce and practise using multiplication to describe/summarise situations and to consolidate $6 \times 2 = 2 \times 6$.

Possible questions:

? Do you notice any similarities between the activities 1-4?



They are all counting in 6s.



? What might the thinking girl be thinking?



She noticed that for activity 4 it doesn't matter if you say 6×2 or 2×6 , the answer will be the same.



? Do you notice any patterns within the activity?



$18 = 3$ sixes or 6 threes



The table summarises the group counting in 1 and 2.



The 'make the sides equal' activity is another way of writing what is in the table.



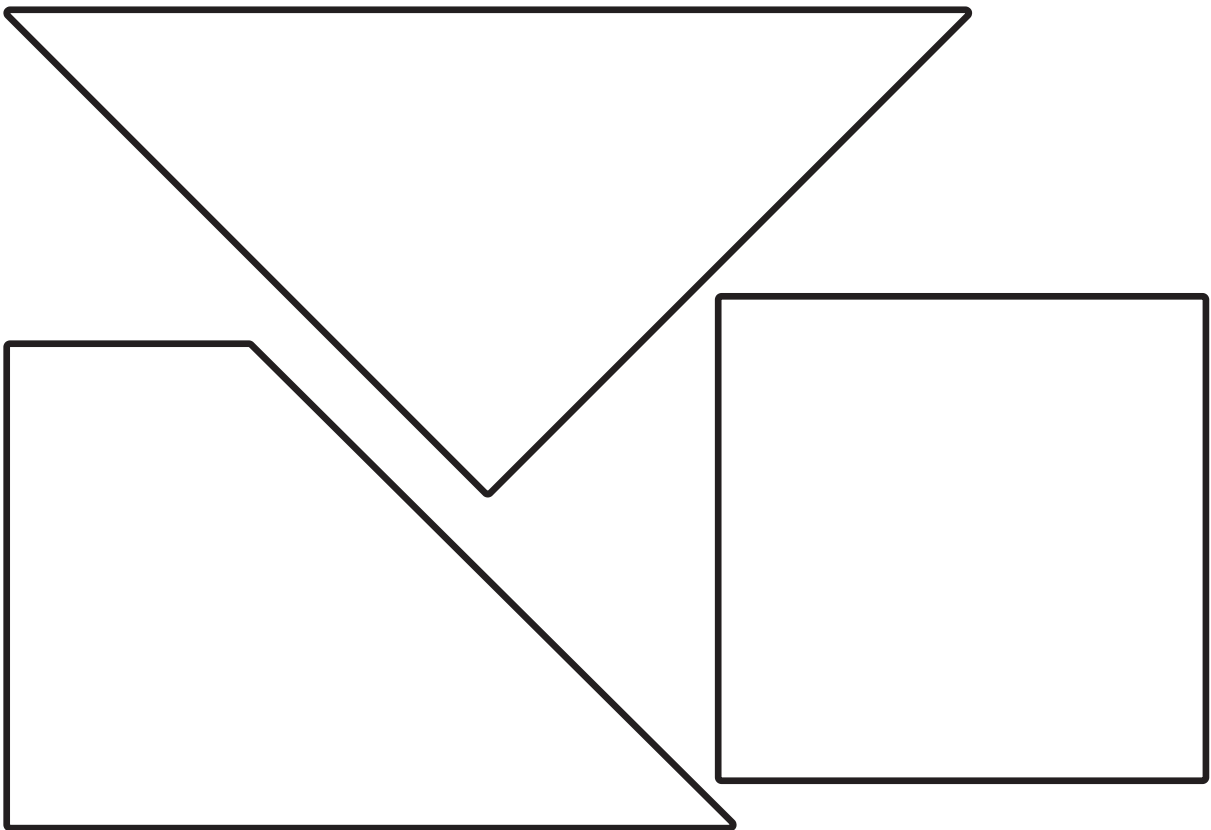
TANGRAM
PUZZLE



Complete card #8



1. Use the same four Tangram Puzzle pieces to make and cover each shape. Trace your solution.



2. Is there another shape that you can make with the same four pieces? Make a rough sketch of your solution.



Things to think about



Activity 1: Tracing numbers

The purpose of these activities is for children to practise combining shapes to make new shapes. To do this, they have to match sides that are equal. At this stage this will be by trial and error. It is made explicit on page 52.

Give the children a chance to try Tangram activity card #8 in pairs or small groups. If you have limited resource, have the class rotate through this activity while other groups work on another workbook page.

Walk around the class as they work and ask questions if they are struggling. Avoid showing or telling.

? What else can you try?

? Could that shape go another way?

Once the children have had a chance to try, reflect on the activity as a group.

? Which pieces did you use?



The two small triangle and the medium-sized triangle.

? How did you decide?



I kept trying different ones until it worked.



I could see the big triangles would be too big. The square and the other shape with four sides only worked to make the triangle. That left the three smallest triangles and they fitted.

Allow the children to consolidate by completing activities 1 and 2 independently.



Activity cards 7-12 all have similar activities. You can use these cards to scaffold or consolidate. Activity card 12 is a good extension challenge.



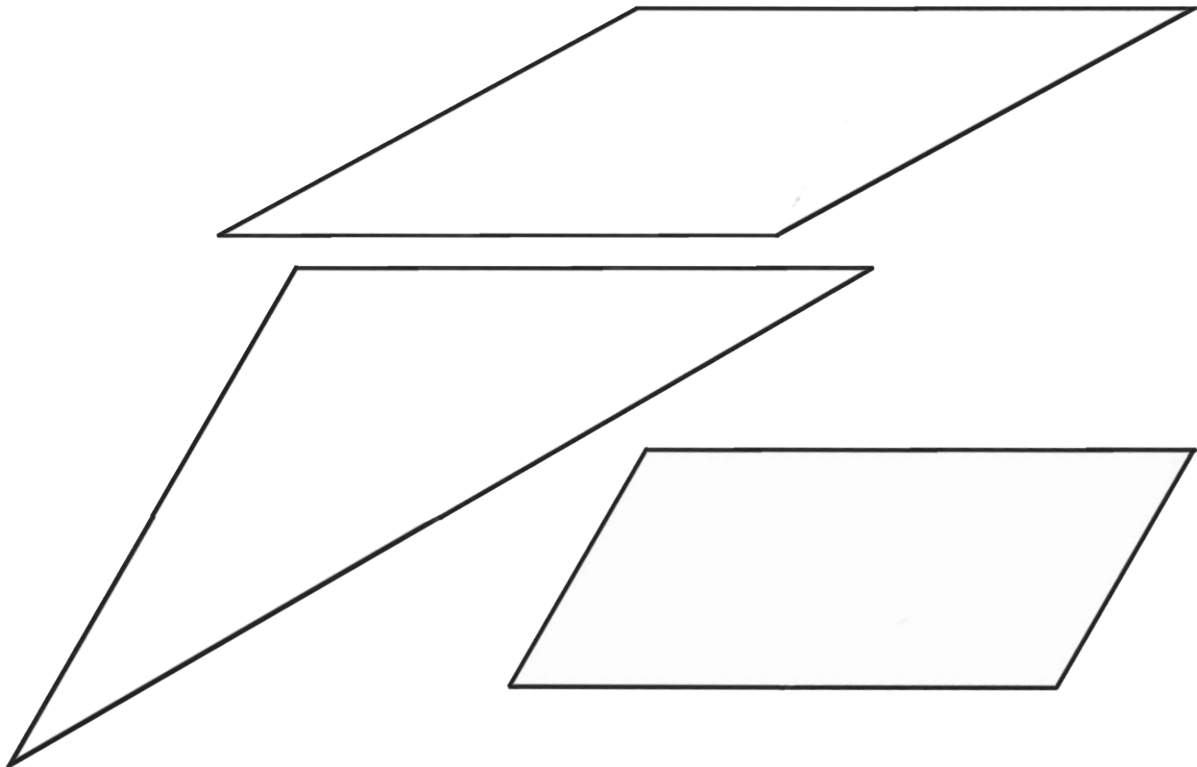
**MOSAIC
PUZZLE**



Complete card #7



1. Complete card #9 and trace your solutions.



2. Is there another shape that you can make with the same two pieces? Trace your solutions.

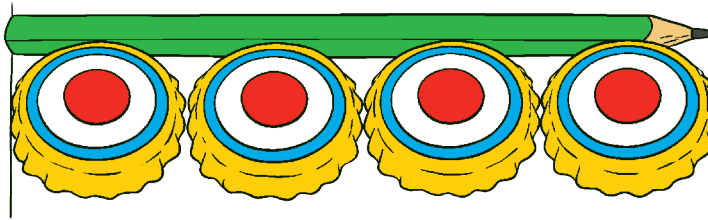


Discuss this with your friends.



Notes

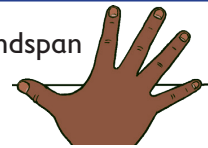
Length is the term used to describe the size of an object from one point to another point.



We can say the length of the pencil is 4 bottle tops.



handspan



1. Complete.

	Number of matchsticks	Number of bottle tops	Number of handspans
Length of a book			
Length of a table			

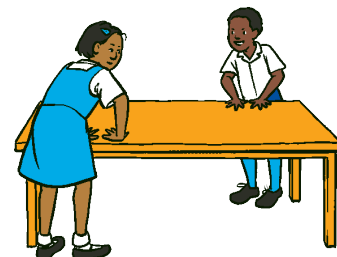
2. What did you notice about using the matchsticks, bottle tops and handspans to determine:

- The length of the book?
- The length of the table?

3. Mary determined a table to be 12 handspans long. Siphon determined the same table to be 14 handspans long. Discuss why the values that they determined were different.

 *Their hands are different sizes.*

 *They don't measure with the same amount of care.*



 *Extension: If they both measured the same way, whose hands are bigger? Explain why.*



Things to think about



Activity 1 and 2: Measurement: Length - non-standard units

The purpose of these activities is to help children notice the inconvenience of a non-standard measure. Some are quicker but not accurate, some are slow but more accurate.

In activity 1, they experience measuring objects using different non-standard units. In activity 2, they reflect on the experience.

? What did you notice when you measured the book?



It was easier to measure the book using the matchsticks/bottle tops. You could be more exact but it took too long.



It was difficult because the handspans didn't fit exactly so we got 1 and a bit.

? What did you notice when you measured the table?



The bottle tops/matchsticks took a very long time.

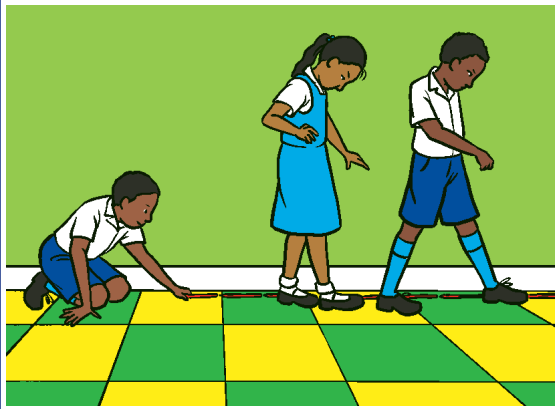


The handspans were quick and easy.

You could continue the discussion by asking questions like:

- What would you use to measure the table if you wanted to be quick? (efficiency)
- What would you use if you wanted to get the exact length of the table? (accuracy)

The children will have the opportunity to do more activities like this on page 58 and 59. There will be time to discuss these ideas further.



Compare the lengths of two different rooms in your school using pencils, footsteps and strides.



1. Complete.


Deliberately frustrating

	Number of pencils	Number of footsteps	Number of strides
Length of room one			
Length of room two			

2. What did you notice about using these objects to determine the length of the classrooms?

• Pencils?  *It took ages!*

• Footsteps?  *It was faster.*

 *We got different measures when different people measured.*

• Strides?  *This way was quick.*

3. Fundi determined the length of a room to be 8 strides. Jan determined the length of the same room to be 11 strides. Why were the values that they determined different?





Activity 3:

The inefficiencies associated with using non-standard units paves the way for the introduction of more standardised units and measuring instruments. Experiences like the one in this activity make children aware that they cannot compare their findings unless the units they use are the same. This practical experience in grade 2 prepares them for formal introduction of standard units in grade 3.