

Planning a community fair stall

Student booklet



4

Mathematics

Queensland Comparable
Assessment Tasks
(QCATs) 2011

Given name:

Family name:

School:

Setting the scene: Group discussion

Many communities hold fairs. Schools often take part in fairs.

Think of some fairs you have been to, seen or heard about.

- What did you like?
- What are some activities your class could do at the fair?



In this assessment, you will plan for a class popcorn stall at a local fair.

Planning a stall is important.

Some things to plan include:

- stall location
- layout of the stall
- costs
- signs
- price lists
- job rosters
- choosing a charity to donate the money to.

What might go wrong if your class did not plan for their stall?

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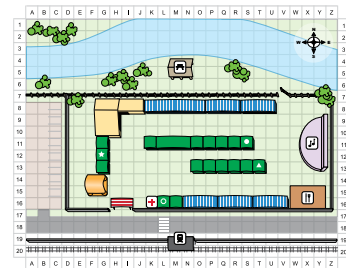
Images Creative Commons Attribution 2.0 Generic licensed photos <<http://creativecommons.org/licenses/by/2.0>> accessed 07 Feb 2011: Cover, Clown: Bahman.'s photostream, untitled, <www.flickr.com/photos/bahman2005/302426028>; p. 2 Face painting: Tom@HKs' photostream, "Face Painting", <www.flickr.com/photos/gracewong/289332460>; Bouncing castle: JoshSemans' photostream, "I Have Odd Friends", <www.flickr.com/photos/joshsemans/3647094104>. All other images © QSA.

In this assessment, you will:

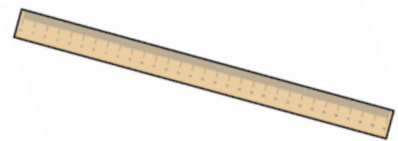
- use calendars



- locate features using directions and grid references on a map



- measure using an instrument (ruler) and standard units (cm, m)



- calculate ingredient costs




- reflect on using mathematics in daily life.



Planning with a calendar

Use this calendar to help answer questions on the next page.

September 2011						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			1	2	3	4
5	6 Choose stall food theme	7	8 Choose charity	9 Find out cost of ingredients	10	11
12	13	14	15	16	17	18
19 School holidays start	20	21	22	23	24	25
26	27	28	29	30 School holidays end		

October 2011						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
					1	2
3	4	5 Make labels	6 Get equipment	7 • Set up stall • Cook popcorn	8  Community fair	9
10	11	12	13	14	15	16
17 Student-free day	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

	School days		Weekends		School holidays
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Use the calendar on page 4 to answer Questions 1 to 4.

1. **Complete the table below.** The first row is done for you.

Activity	Day	Date	Month
<i>Choose charity</i>	Thursday	8	September
	Wednesday	5	October
Student-free day			

2. **Write the activities below onto the calendar on page 4.**

Activity	Date
Job roster	12 September
Make posters	16 September
Buy ingredients	3 October

The fair organisers are worried about rain.

They have set a backup date for the fair seven (7) days **after** 8 October.

3. **What is the backup date of the fair?**

Explain how you worked this out.

.....

4. **There will be a school assembly on 7 November.**

What day of the week is this?



Stop here: Wait for your teacher's directions.

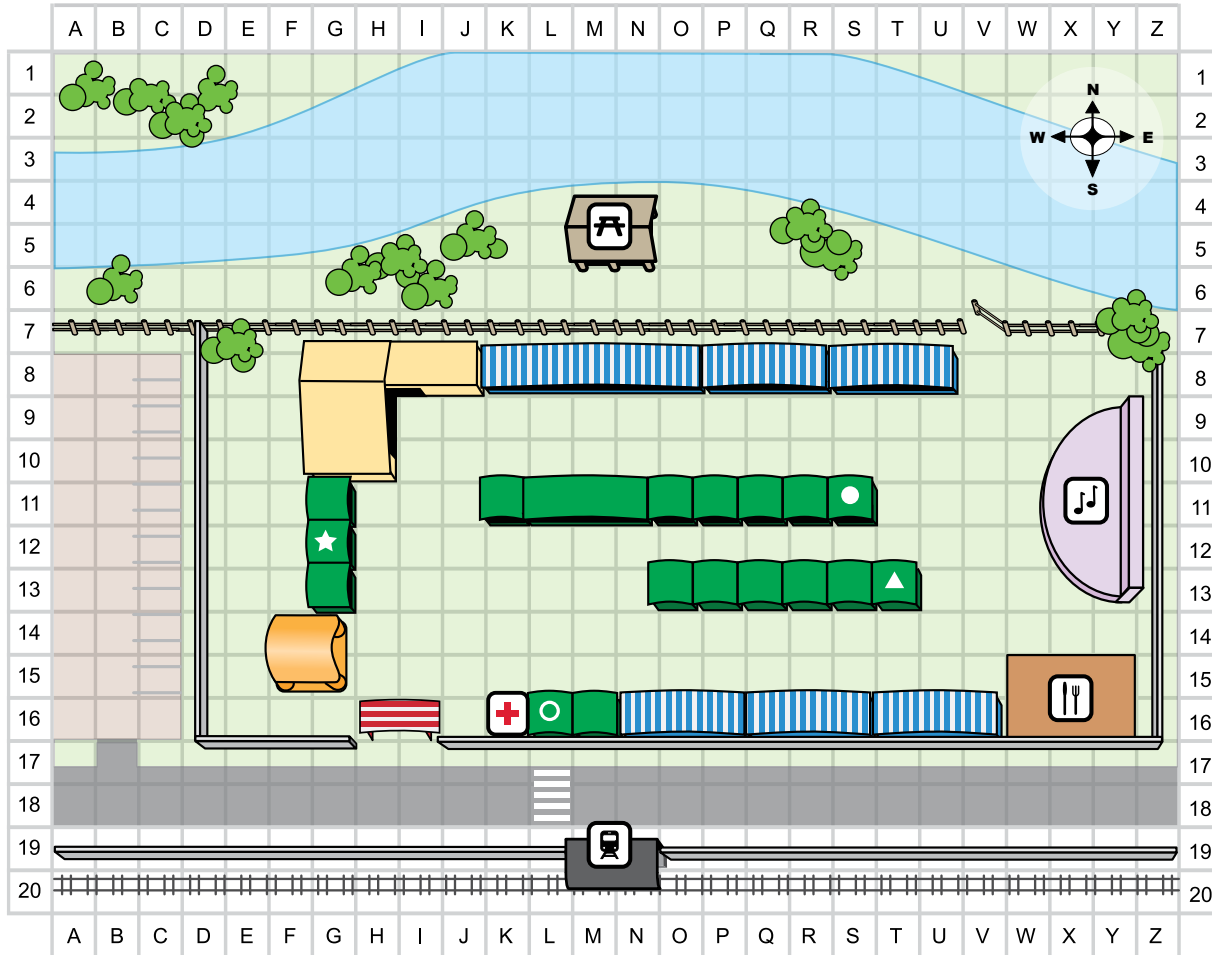
Mapping and locations

This map shows the landmarks, features and locations of the fair.

Alphanumeric grid maps use letter and number reference points.

These points show a location or landmark.

Community fair layout




Legend


	Eating area		Games		Car park
	First aid		Entrance		Crossing
	Main stage		Friendship farm		Park
	Picnic shed		Jumping castle		River
	Train station		Stalls		Road



Use the map on page 6 to answer Questions 5 to 7.

5. Complete the table below. The first row is completed for you.



Landmark	Location
 stall	G 12
First aid	
	M 5

6. Use the compass rose  to identify the direction when walking from the:

- Entrance to the Friendship farm
- Main stage to  stall

There are two possible locations for your class stall, either  or .


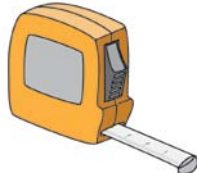


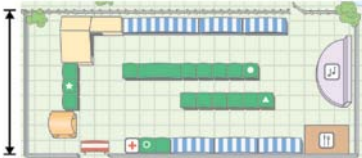
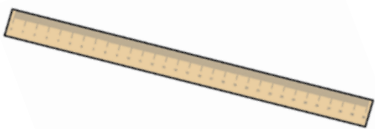
7. Identify the advantages and disadvantages for each location, using features on the map.

Stall	Advantages (+)	Disadvantages (-)
		
		

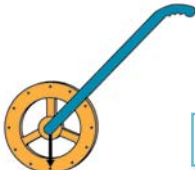
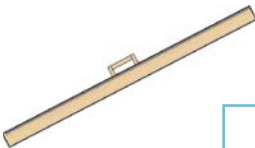
Measuring using standard units

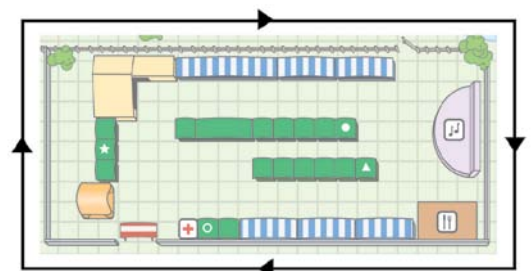
A variety of instruments can be used to measure different objects in standard units (mm, cm, m, km).

8. Draw a line from each object to the **best possible** measuring instrument.

Object to measure	Instrument
length of stall 	5 metre tape measure 
height of popcorn box 	30 metre tape measure 
width of fairground 	30 cm ruler 

9. Below are two instruments. Which instrument is **better** to measure the distance around the fairground? Tick one.

trundle wheel  <input type="checkbox"/>	metre ruler  <input type="checkbox"/>
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This instrument is better because:

.....

.....

10. Measure accurately the length and width of the fair flyer using your ruler.



Stop here: Wait for your teacher's directions.

Investigating numbers

The class popcorn stall sold lots of popcorn at the fair.

Number of popcorn boxes sold at the fair


Time of day	Popcorn boxes sold
morning	42
lunch	83
afternoon	25

11. Calculate the **total** number of popcorn boxes sold.

 Show all working

Total number sold:

12. How many **more** popcorn boxes were sold at lunch than in the afternoon?

 Show all working

Total boxes:

Here are the costs for individual ingredients.



popcorn kernels



sugar



oil

13. Calculate the total cost of ingredients.



Show all working

Total cost of ingredients:

Total money collected from the sale of popcorn



boxes of popcorn



collected



\$300

14. Calculate how much money your class raised after paying for the ingredients.



Show all working

Total raised:

Thinking about mathematics

Show how mathematics can be used in your daily life.

15. Complete this table about using addition and subtraction.
The first row is completed for you.

Activity	Operation	Write a number sentence to show how you used the operation
A board game using dice	+	$5 + 6 = 11$
	+	
	-	

16. Complete this table about using instruments and tools.

The first row is completed for you.

Activity	Instrument/ tool	How did you use the instrument/tool?
<i>Record the dates of my family's birthdays</i>	calendar	<i>Found the day, date and month of each birthday and wrote name.</i>
	ruler	
	map	



Extra working space

Extra working space

Guide to making judgments — Year 4 Mathematics

Name

Focus: Generate solutions using number, measurement and space concepts and reflect on mathematical understandings in everyday life.

Knowledge and understanding	Thinking and reasoning	Communicating	Reflecting
<p>Reads and interprets maps and calendars. Selects measurement tools and makes measurements. Calculates addition and subtraction problems.</p> <p>Questions 1, 2, 5, 6, 8, 10, 11–14</p>	<p>Generates solutions using calendars and measurement. Interprets maps, makes decisions and justifies locations.</p> <p>Questions 3, 4, 7, 9</p>	<p>Communicates calendar information, directions and number solutions using everyday and mathematical language.</p> <p>Questions 3, 9, 11–14</p>	<p>Reflects on and identifies how mathematical understandings contribute to everyday personal activities.</p> <p>Questions 15, 16</p>
<p>Generates correct solutions for calendar and measurement. Number problems are accurate. Directions are precise.</p> <p>Adds decimal number problems correctly.</p> <p>Calculates total number of popcorn boxes. Demonstrates success in solving calendar and measurement problems, adding and subtracting whole numbers, and using a compass rose and alphanumeric grid.</p> <p>Demonstrates some success in calendar and measuring questions. Costing is partially completed. Directions are provided.</p>	<p>Justifies stall location by referring to mapping conventions.</p> <p>Accurately identifies day of school assembly. Clearly explains solutions and choices.</p> <p>Identifies backup date and explains solution. Applies appropriate strategies and correctly chooses measuring instruments.</p> <p>Proposes solutions using a calendar.</p>	<p>Clearly communicates mathematical procedures. Uses mathematical language in explanations.</p> <p>Uses mathematical language.</p> <p>Shows working out in most explanations. Uses reasonable everyday language in explanations.</p> <p>Provides working to support some solutions.</p> <p>Provides some directions using everyday language. Some costs are provided.</p>	<p>Consistently identifies relevant examples of where and how mathematics is used in chosen activities.</p> <p>Correctly identifies how instruments, tools and number operations are used in daily activities.</p> <p>Identifies operations and uses for an instrument and tools. Items described have connections to the chosen activity.</p> <p>Identifies some examples of selected tool, instrument or operation.</p>

Feedback