

# Planning for camp

Student booklet



# 4

## Mathematics

Queensland Comparable  
Assessment Tasks (QCATs)  
2010

Given name: .....

Family name: .....

School: .....

## Setting the scene: Group discussion

Many families go camping.

Families can camp near the beach, near a rainforest or even in the backyard.

Where are some good camping places that you know about?

What are some of the activities you can do when camping?



Families have to plan when they go camping.

What might happen if a family went camping without planning?

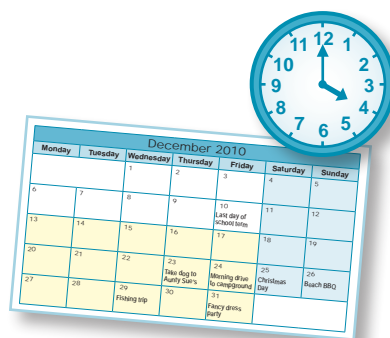
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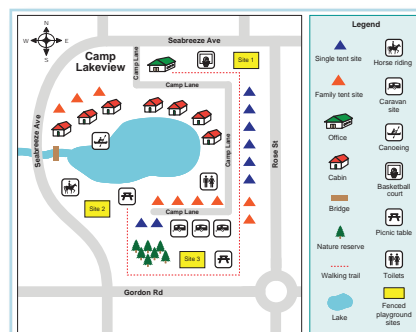
This assessment focuses on using mathematics to help plan a camping holiday.

## In this assessment, you will:

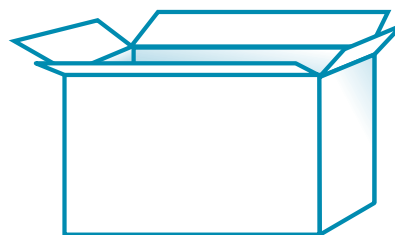
- refer to clocks, calendars, timelines and timetables



- locate places and give directions using a map of a campground



- measure and identify the mass of items you could pack into boxes



- think about how you would use mathematics in another situation.



# Planning time when camping

Clocks, timetables, timelines and calendars are items we use when planning.

1. Use your ruler to draw a line from each statement to the item you would most likely use.



Hint: Items may be used more than once.

a) To identify which days the school holidays start and finish, I will use a ...

b) To work out the time I will arrive at a nearby campground, I will use a ...

c) To plan my day, I will record my activities and times using a ...

d) To work out how many minutes until a shop opens, I will use a ...

e) To find out what time buses stop at the campground on Tuesday, I will use a ...

clock

yearly  
calendar

weekly  
timetable

daily  
timeline

Use the information in the table below to help you complete Questions 2 and 3.

2. Write the hours on the dotted lines next to the timeline. Include am or pm in your answer.
3. Rule a straight line from each activity's time to the timeline to show when the activity starts.



The first one has been done for you.

Activity	Time	Daily timeline
Feed pelicans	6:30 am	
Treasure hunt	2:00 pm	
Bush art	9:45 am	
Canoeing	3:15 pm	
Beach Olympics	8:30 am	
Movie	12:10 pm	
Fishing	10:50 am	



Stop here: Wait for your teacher's directions.

Calendars help us to plan our time effectively.

December 2010						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		1	2	3	4	5
6	7	8	9	10 Last day of school term	11	12
13	14	15	16	17	18	19
20	21	22	23 Take dog to Aunty Sue's	24 Morning drive to campground	25 Christmas Day	26 Beach BBQ
27	28	29 Fishing trip	30	31 Fancy dress party		

January 2011						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
31					1	2
3	4	5 Return home from camp	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24 Student-free day	25 Student-free day	26	27	28	29	30



School holidays



Weekends

Use the calendars on page 6 to answer Questions 4, 5 and 6.

4. Complete the table below.

Activity	Day	Date
e.g. Last day of school term	Friday	10 December
a) Beach BBQ		
b) Fishing trip		
c) Fancy dress party		

5. Write these activities on the calendar in the correct place.

Activity	Date
a) Canoeing	3 January
b) Beach swim	27 December
c) Rainforest walk	1 January

6. a) How many nights will you be camping?

.....

b) The dog is at Aunty Sue’s house for 15 nights. What day and date will you pick up the dog from Aunty Sue’s house?

.....

c) The camping gear is cleaned and packed away on the weekend after returning home. What are the days and dates of this weekend?

.....



Stop here: Wait for your teacher’s directions.

# Thinking about location

This map shows where Camp Lakeview is located.









7. Write north, south, east or west to make each statement true.

The school oval is ..... of the school.

The train station is ..... of field 1.

The shops are ..... of the petrol station.

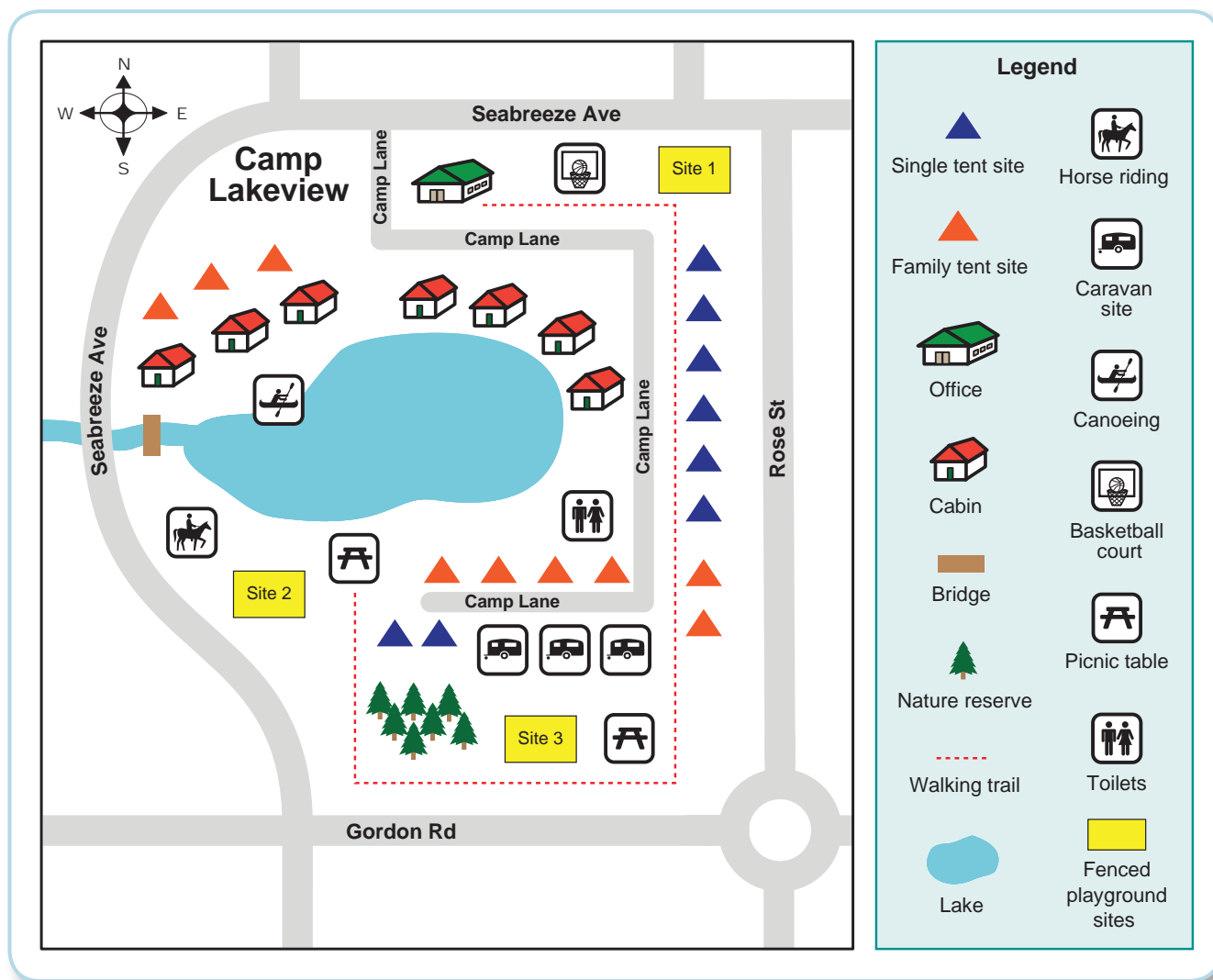
8. Draw each symbol in the correct location on the map.

a) 	The <b>tennis court</b> is between First Ave and Second Ave.
b) 	The <b>playground</b> is on Gordon Rd south of the nature reserve.
c) 	The <b>skate arena</b> is east of the shops between Rose St and School Rd.
d) 	The <b>hall</b> is north of the school on the west side of Fourth Ave.



Stop here: Wait for your teacher's directions.

Here is a map of Camp Lakeview.



A family would like a quiet tent site.

9. a) Place the symbol ☺ on the family tent site you think will be the quietest.
- b) Why is your choice the quietest? Refer to the map to explain your reasons.

- .....
- .....
- .....
- .....

A fenced playground will be built on one of three sites (  ) shown on the map.

10. a) Place a tick (✓) on the site you think is best.
- b) Why is this site the best? Refer to the map to explain your reasons.

- .....  
.....
- .....  
.....

The map of Camp Lakeview shows a walking trail ( - - - - - ).

11. Write directions to follow the walking trail, starting at the office.



- Describe what you will see as you walk along the trail.
- Use compass directions.

- From the office, walk east toward Rose Street. Camp Lane will be on your right and the basketball court on your left.
- Turn .....  
.....  
.....  
.....  
.....  
.....  
.....  
.....



Stop here: Wait for your teacher’s directions.

## Thinking about packing

When we go camping we need to pack food, clothes and camping gear to take with us. We may need to find the mass of items to make sure boxes are not too heavy.

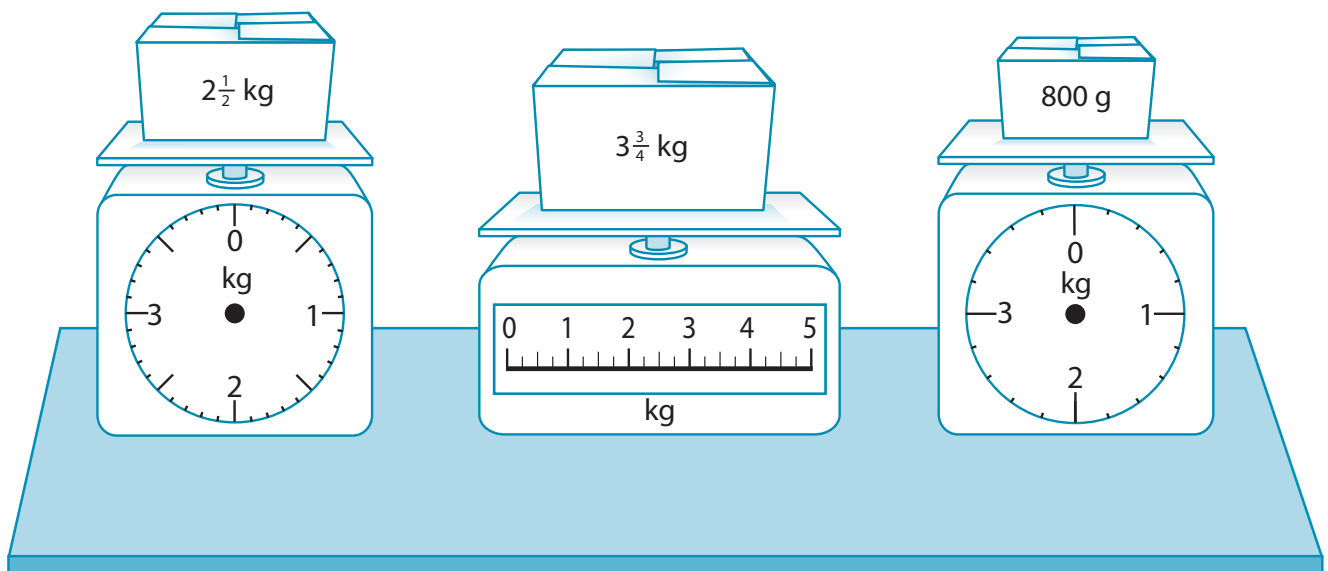
We use kitchen scales to measure the mass of small things.

Here are three different kitchen scales. They have different measurements on them.

**12. Draw an arrow on each scale to show the mass shown on each box.**



Hint: Draw your arrows accurately.



Stop here: Wait for your teacher's directions.



## Practical activity

On a table in your classroom there are two containers and one kitchen scale.

The containers are labelled A and B.

### 13. Find the mass of container A using the kitchen scale.

The mass of container A is .....

### 14. Fill container B with sand so the mass is 1700 grams.

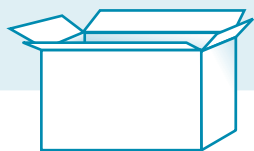
Show your teacher when you have finished.

### Teacher comment (Question 14)

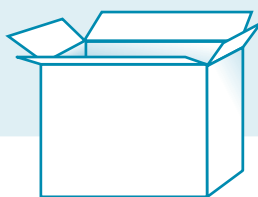
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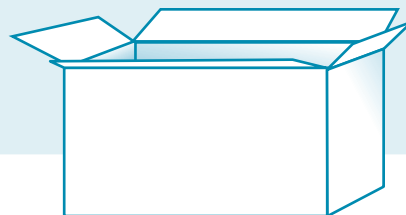
When you go camping you will help to pack things in boxes. Different boxes can hold different weights.



The mass of **Box A** must be exactly 15 kilograms.



The mass of **Box B** must be exactly 20 kilograms.



The mass of **Box C** must be exactly 25 kilograms.

Here are the items to be packed into the three boxes.

 <p>Clothing 5 kg</p>	 <p>Personal items 2 kg</p>	 <p>Bedding 7 kg</p>	 <p>Cutlery 1 kg</p>
 <p>Swimming gear 4 kg</p>	 <p>Games 5 kg</p>	 <p>Food 8 kg</p>	 <p>First-aid kit 2 kg</p>
 <p>Gas cylinders 13 kg</p>	 <p>Cooking items 6 kg</p>	 <p>Tent 7 kg</p>	

Which items would you put in **Box A**, **Box B** and **Box C**?



Place no more than **four items** in each box. You must pack all items.



Show all working

15. Write the names of the items that should be placed in each box.

Box A 15 kg		Box B 20 kg		Box C 25 kg	
item	mass	item	mass	item	mass



Stop here: Wait for your teacher’s directions.

# Reflecting on learning

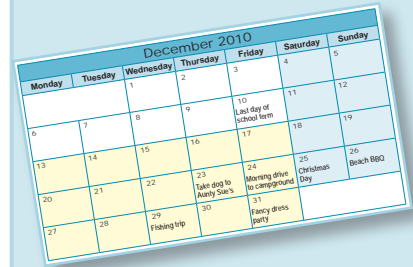
## 16. Complete the following.



You can tick (✓) more than one box for each statement.

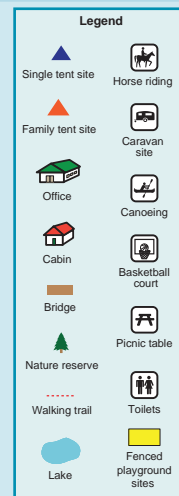
### a) Calendars can be used to:

- ☐ tell the time during the day
- ☐ find school holidays
- ☐ find days and dates
- ☐ plan activities during the year
- ☐ find out when buses arrive on a day



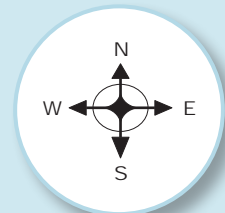
### b) A legend on a map is used to:

- ☐ find direction of travel
- ☐ find places on a map
- ☐ work out how far places are from each other
- ☐ save room on the map



### c) The four compass points are used to:

- ☐ find direction
- ☐ find places on a map
- ☐ work out how far places are from each other



Stop here: Wait for your teacher's directions.



# A new situation

You can use mathematics when planning many of your personal activities.  
Choose one activity by ticking (✓) a box, then answer the questions below.

- ☐ a birthday party
- ☐ a sleepover
- ☐ a fishing trip

**17. How can you use mathematics in your chosen activity?**

**a) I can use a timetable to:**

.....

.....

**b) I can use a clock to:**

.....

.....

**c) I can use a kitchen scale to:**

.....

.....

**d) I can use a map to:**

.....

.....





Guide to making judgments — Year 4 Mathematics

Name .....

Focus: Generate solutions using number, measurement and space concepts.

Knowledge and understanding Reflecting	Knowledge and understanding Thinking and reasoning	Knowledge and understanding Communicating
Reflects on and identifies how mapping and the measurement of time and mass contribute to personal activities.  Questions 1, 16, 17	Generates sequencing and scheduling solutions using timeline and calendar, and solves measuring and addition problems with mass.  Interprets maps to make inferences and decisions and generate solutions.  Questions 2–8, 12–15	Justify tent position and playground placement and give directions using everyday and mathematical language.  Questions 9–11
Consistently identifies relevant examples of how mathematics is used in the chosen activity, and how a legend and a compass are used.	Identifies items to be placed in all boxes. Generates correct solutions using a timeline, calendar and mass measurement. Competent use of legend and compass to identify location and direction.	Provides logical justification of which tent site is quietest and where playground should be placed based on interpretation of mapping conventions. Directions are precise.
Correctly identifies how clocks, timelines, timetables and calendars are used to measure time.		
Identifies most uses for a legend and compass, and for clocks, timelines, timetables and calendars. Identifies two relevant examples of how mathematics can be used in the chosen activity.	Generates mostly correct measurement solutions using a timeline, calendar and kitchen scales. Identifies items to be placed in two boxes.	Provides reasonable justification of which tent site is quietest and where playground should be placed. Directions are coherent and include compass points.
Identifies some uses for clocks, timelines, timetables, calendars and one use for a legend. Items described have connections to the chosen activity.	Generates some correct solutions using a timeline, calendar and compass directions. Records correct measurement on one kitchen scale and identifies items to be placed in one box.	Provides some directions using mathematical language.
Identifies how two items (clock, timeline, timetable, calendar) are used to measure time.		

Feedback .....

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