## Tanguage of position

1 Follow the instructions to show position.
a Circle the child in the middle.

Put a cross under the child on the left.
b Circle the bug on the for right.
Put a cross above the bug that is between the green and blue bugs.

c Place a cross above the middle flower.

Tick the pot that is under the yellow flower.


2 Follow these instructions to draw:
a 3 flowers in the right pot and 5 flowers in the left pot.

b A ball under the chair and a light hanging above the chair.



## Animal position

1 Complete the statements to describe the

## Position words

right between
left above below position of the animals.

a The pelicon is $\qquad$ the frog.
b The koold is $\qquad$ above the emu.

The parrot is to the $\qquad$ right of the koala.
d The frog is $\qquad$ the emu and the scorpion.
e The kangaroo is to the $\qquad$ of the pelican.

2 Use position words to write sentences of your own.
a The emu is $\qquad$ under the koala.
$\qquad$
b The possum is $\qquad$ to the right of the parrot.
$\qquad$
c The blue-tongue lizard is $\qquad$


Location and Transformation

## Following paths

1 Follow the instructions to colour the path and get the joey back to her mother. The first instruction has been coloured for you.

Go straight ahead 3 spaces.
Turn right and go 4 spaces.


Turn left and go 2 spaces.
Turn right and go 2 spaces.
Turn left and go 2 spaces.
Turn left and go 3 spaces.
Turn right and go 2 spaces
Turn right and go 8 spaces.
Turn left and go l space.
2 Colour a path to get the wombat back to his burrow. Don't let the wombat get wet in the water.

Describe your path.
Answers will vary.

$\qquad$
$\qquad$

## Drawing what and where

1 Red Riding Hood is following the path to get to her grandma's house.
Draw the following:
a 5 red flowers before the seat on the left hand side of the path
b 3 balls on the opposite side of the path to the red flowers
C a small child standing on the first seat
d 2 butterflies above the second seat along the path
e a snake slithering across the path where it bends
$f$ a boall on the grass behind the first seat.


Describe to a friend the position of the objects if Red Riding Hood was walking back from Grandma's in the opposite direction along the path. Discuss how the language has changed.

## Where to stay?

1 Twelve children were chosen to attend the youth camp. Follow the clues to label where each child stayed.


Taj


Kami

$\qquad$

$\qquad$
a Anish stayed in the orange house in the top row.
b Boris stayed in the house to the left of Anish house and Lin stayed in the house to her right.
c The house under Lin was Nuno's and to the right of his place was Sun.
d Leyla slept in the house above Sun and Finn slept in the house below Sun.
e Kami stayed in a house in the bottom row that was second from the left. Joel's house was under Boris's.
f Diego was in the house between Nuno and Joel's.
g Taj was in the house in the bottom lefthand corner.
h Niko slept in the house that was to the
 right of Kami's.

## Where to visit?

1 Read the clues below to find where the students visited on Monday and Tuesday. They started at Youth Park both days.


Draw a red path for Monday .
They travelled down Galaxy Road to Planet Street. They turned left at Planet Street. Along Planet Street they turned right into Star Avenue and the venue was on the right.

They went to the $\qquad$ museum _.

Draw a blue path for Tuesday.
They travelled down Sun Road and turned right into Star Avenue. They turned left at Planet Street then right at Solar Road. Along Solor Rood they turned right into Moon Street and the venue was first on the left.

They went to the $\qquad$ .

2 Draw a green path to show where the children could go on Wednesday. Describe your path.

Answers will vary.
$\qquad$
$\qquad$


Location and Transformation

## Making models

1 Oscar has started to draw a bird's-eye view of his school. In a small group make a model of Oscar's school.


2 Use the drawing to answer the questions.
a Which classrooms are closest to the playground equipment?
Year 1 classrooms
b Which side of the picture is the librory on? $\qquad$
Right
c What is between the library and the pathway? Basketball court
3 a Draw 3 bushes
 to the right of the Year 2 classrooms.
b Draw a bin
 between the Year 2 classrooms and the basketball court.

4 Add two new things to the drawing above and to your group model.

Answers will vary.

## 4 bird's-eye view

1 Work with a group of friends. Build a model of your school and record what it looks like from $a$

A bird's-eye view means that you pretend you are a bird looking down on something. When recording a bird's-eye view you will only see the tops of things. bird's-eye view.

## Answers will vary.

2 Write some questions for a friend to answer about your model. The word bonk will help you.

Answers will vary.
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Word bank

left right between below above next to

## Slide, turn and flip



Try these actions with a pattern block to understand these terms.


To slide is to move a shape in either direction without turning or rotating it.
To turn a shape is to rotate it. To flip is to turn a shape over.

1 Write slide, turn or flip to describe what has happened to each shape.

slide

turn

flip

2 Jenny has three padlocks to open. What must she do to each shape to fit it into each padlock? Slide, turn or flip?
a

turn

flip
c

slide

3 Look at each shape. Follow the instruction to draw what the shape will look like.
a Flip the shape.

b Slide the shape.
C Turn the shape.


## Shapes that tessellate

1 Tessellating shapes fit together without gaps. Colour the designs made with shapes that tessellate.
a

b

c


2 Which shapes can you see in these tessellations?
a

hexagon

square

$\qquad$

3 Use pattern blocks to make your own tessellating designs. Draw one of your designs.

> Answers will vary.

## Quarter-turns and half-turns

1 Draw the next picture in the quarter-turn patterns.


2 Draw the next picture in the half-turn patterns.


3 a Draw the missing elements of the patterns and circle the best description.


## b



1 Complete these designs so that the rugs have symmetry.


2 Use pattern blocks to make your own symmetrical design. Drow your design on the rug below.

Remember: a symmetrical pattern is formed by flipping and making a mirror image.

> Answers will vary.

3 Circle the rugs that have a symmetrical pattern. Draw lines to show how they could be cut to show symmetry.


Location and Transformation

