

Take This

Spring flowers, beans and seeds

Read:

Kimi and the Watermelon
by Miriam Smith

Diary of a Worm
By Doreen Cronin

See also: [www.nzmaths.co.nz/
resource/transformations-spring](http://www.nzmaths.co.nz/resource/transformations-spring)

Years 1-2



GEOMETRY

Transformation

Make small hand mirrors available. Have students explore the symmetry of live spring flowers.

Have students create their own symmetrical flower reflection by folding paper in half, drawing/painting half a flower, or creating a whole spring flower by pressing on the wet paint, or by drawing the reflected half shape.

Have students identify and create shapes that have 2 lines of symmetry. Eg. identical $\frac{1}{4}$ shapes. Introduce rotational symmetry and language of turns.

GEOMETRY

Shape, position and orientation

With the students, create simple make believe 'map' from a bird's eye view, of an imaginary garden. Locate different familiar flowers in garden beds of different common shapes.

Develop with the students the positional and shape language to describe and record their own 'stories' of relative position: Eg. the red tulip is in the triangle garden bed, to the left of the purple pansy.

MEASUREMENT

Order and compare length and events

Plant 5 or so broad beans, and water them. Give each bean a name (eg. Benny, Brownie, Buddy, etc) and label. As they grow, compare and describe their growth using measurement language (eg. Benny is taller than Brownie and shorter than Buddy, Buddy is the tallest...). Record key words.

Have students create their own rulers using iterations of a non-standard unit. Eg. line up rods of the same size on card, and mark the end of each rod.

Have students measure and record the bean growth over time, using their non-standard rulers, and name the unit. Eg. 2 rods tall.

Create a 'calendar'/chart on which to record growth, exploring days of the week, months of the year.

Discuss conditions for growth. Monitor and record on a class chart, at agreed hour and half hour times of the day, the amount of sunshine (eg. no sun, a little sun, full sun). At each time, have students read on an analogue clock hour and half hour times on the classroom clock.

STATISTICAL INVESTIGATIONS AND LITERACY

Have students each write on a square of paper the name of the bean that they think will grow the tallest. Glue paper slips onto a chart, presenting survey results on a graph. Make comparison and difference statements. Eg. The most people think Brownie will grow the tallest.

Have students ask their parents to draw on a paper square (provided) their favourite season and write a simple statement on the back. Eg. I like spring because of the daffodils. Display pictures on a pictograph. Create another graph (eg. in which ticks are counted) representing the same information. Make connections between the different data displays.

Have students 'critique' and compare the two data displays and express their preference giving reasons.

Have students explore and use data from the graphs to make and record comparison statements, (same and difference). Eg. 5 parents like summer and 7 like spring. 2 more parents like spring best. Have students check: are the data from the two different displays telling us the same things? (Yes).

NUMBER AND ALGEBRA

Apply counting and simple grouping strategies to quantify measurements (above) and to solve number, equal grouping and sharing problems as part of ongoing numeracy lessons. Eg. I have 4 beans. I get some more. Now I have 10. How many was I given?
 $4 + \square = 10$. Pose start-unknown, change unknown and result unknown problems.

Find fractions of regions, halves and quarters. Use these to find fractions of small sets. Eg. I have 10 beans and planted half of these.

Have students use, illustrate, and continue life patterns, identifying missing elements and predicting future elements. Eg. Night, day, night...



1 2 1 2 1 2 1 2

Monday, Tuesday, Wed...; morning, afternoon, night, morning...; breakfast, lunch, tea, breakfast...; Spring, Summer, Autumn, Winter, Spring...ink to simple repeating number patterns.