

## Take This

### *Stepping stones*

Link to personal next steps (goals), on a learning pathway

Read:  
*Henry's Map*  
by David Elliot

Years 1-2



## GEOMETRY

### Position and orientation

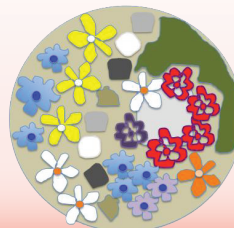
Read *Henry's Map*. Discuss bird's eye view. Talk about steps, stairs and safety. Go for a walk around the school looking for outside steps. As a class make a simple map, locating steps. Develop positional language as students describe locations and give simple directions with reference to the map.

Have each student create a sand- saucer garden in which is located a stepping-stones (pebble) path. Have students describe and write about features of their garden using appropriate positional language. Eg. the dark purple flower is near the middle of the garden, on the left side of the pond (mirror) and on the right of the grey stepping stone. It is beside a blue flower.

## GEOMETRY

### Transformation

Have students make a symmetrical sand-saucer garden with a centre mirror line.



## MEASUREMENT

### Order and compare objects by length, area and mass

Discuss **height**. With students use a length of card to 'measure' the height of steps (see above) from several different locations. Cut card to height. Have students order the cards (step heights) and discuss best (most comfortable) step height.

Have students cut from brown, black, grey or white paper or card their own stepping-stone for the classroom. Have students in pairs place one 'stone' on top of another and compare their **areas**.

Using a non-standard unit, eg. bottle-tops, have them measure (cover with bottle tops) their own stepping stone, record and compare the area of their stepping stones with that of another student.

Have students bring a favourite small stone. Paint these to make 'pet stones'. Give them names then compare the **weights** of the pets using balance scales, making comparison statements.

Using marbles as non-standard units, quantify the weights of the pet stones, record and make statements about their **mass**.

## STATISTICAL INVESTIGATIONS AND LITERACY

Sort pebbles or pet rocks according to colour or size. Make a statistical display using the stones/rocks themselves. Using the data display, record comparison and difference statements.

Have students count the number of steps in flights of steps around the school property or in their homes. Record the number. Sort the numbers into < number > categories. Eg. less than 5, between 5 and 10, 11 to 15, more than 15 steps. Create a data display together. Discuss safety around steps and make a class safety poster to share in assembly, including the data displays showing numbers of steps.

## NUMBER AND ALGEBRA

As part of the ongoing numeracy programme, develop a range of counting grouping, and equal sharing strategies.

Have students create and record stories about their stepping stone pathways, or steps. Eg. 10 stones are in the pathway. 4 black, 1 white and some grey stones. How many grey stones are there?

Pose a range start-unknown, change unknown and result unknown addition, subtraction equal grouping and sharing problems. Have the students solve these and explain their thinking.

Using lego blocks or other construction materials have students build steps. Generalise that the next counting number gives the result of adding one object. Increase the steps by 2 blocks, 3 blocks, 5 blocks for each step. Have students draw what is happening and with support, find a pattern.

Have students draw or make pebble pathways in patterns. Continue patterns, predicting pattern elements. Eg. grey, black, black white, grey... Identify missing elements in a pattern.

