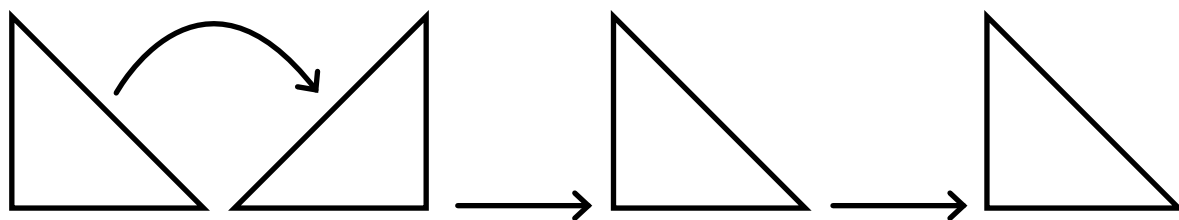


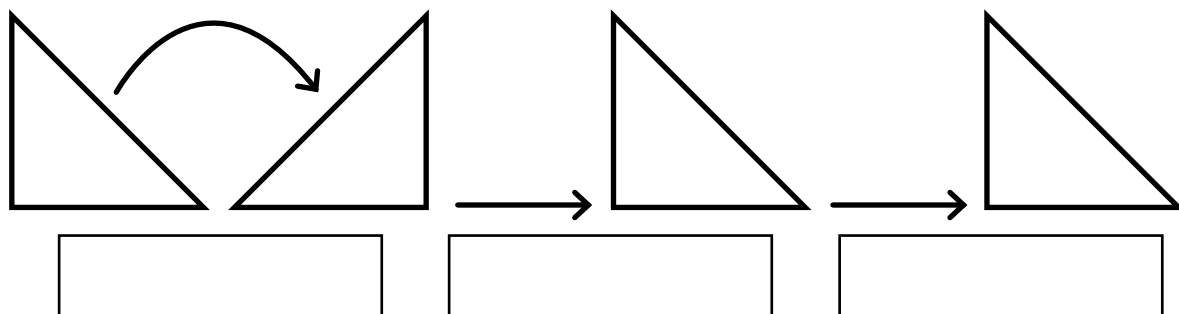
# Flip, Slide, Turn

1 Dizzy thinks this shape pattern is flip, slide,  $\frac{1}{4}$  turn.

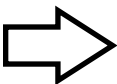


Is he correct?

- a Underline the question. b Circle the facts.  
c Act it out to solve the problem. Write the labels.



d Is Dizzy correct? \_\_\_\_\_

2 Use an arrow  shape to create your own movement pattern. Write the labels.

3 Work with a partner. Act out each other's patterns to check if they are correct.

## Critical thinking and problem solving

**Mathseeds** encourages children to solve problems and use higher level thinking throughout the program. These critical thinking and problem solving worksheets provide a growing toolkit of different strategies, using a simple structure that helps children grow in skills and confidence. The more experience children have with higher-level thinking, the more confidence they will gain to think logically, take risks, ask questions and apply reason. In turn, this will encourage them to communicate, explain and justify their mathematical reasoning.

Tackle each problem using this simple structure.

### 1. Read the question

Encourage children to read the question carefully.

### 2. Underline the question

What is the question asking them to do? In turn, children can ask their own questions such as: Is this an addition problem? Do I need to draw a shape? Am I being asked to measure something?

### 3. Circle the facts

Focus on the important facts needed to solve the problem: numbers, words or phrases.

### 4. Use a strategy to solve the problem

Think about how to solve the problem, which strategy will you use?

### 5. Evaluate

Encourage children to think about how they solved the problem; to check their answer and to share their solutions with a partner. Consider other ways or strategies they could have used to find a solution. This encourages children to reflect, to analyse, to ask questions and to explore alternate options.

## Lesson 102 • Flip, Slide, Turn

The strategies used in this lesson are:

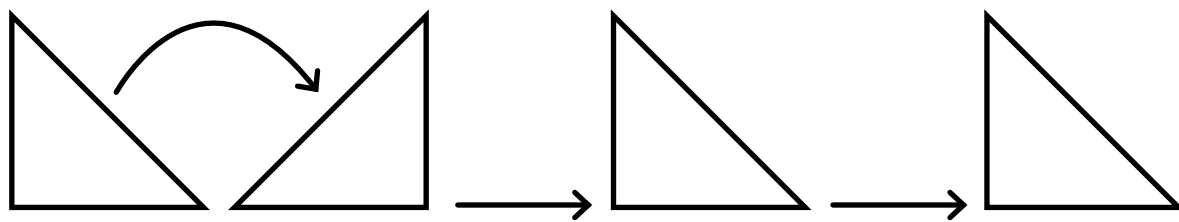
### **Act it out** and **Draw a diagram**

Act it out involves using manipulatives to work through a problem. When dealing with the movement of shapes, it is useful to be able to manipulate a real shape to see how its orientation changes and to check predictions. In these problems children need to prove how a triangle has moved and describe each movement. They then need to create their own shape pattern and draw a diagram.

Children can use triangle pattern blocks or simply cut a triangle from the corner of the page.

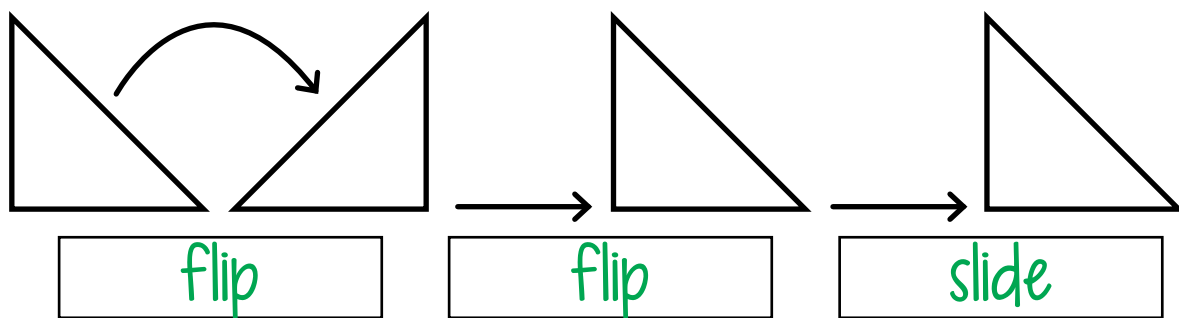
# Flip, Slide, Turn *Answers!*

1 Dizzy thinks this shape pattern is flip, slide,  $\frac{1}{4}$  turn.

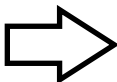


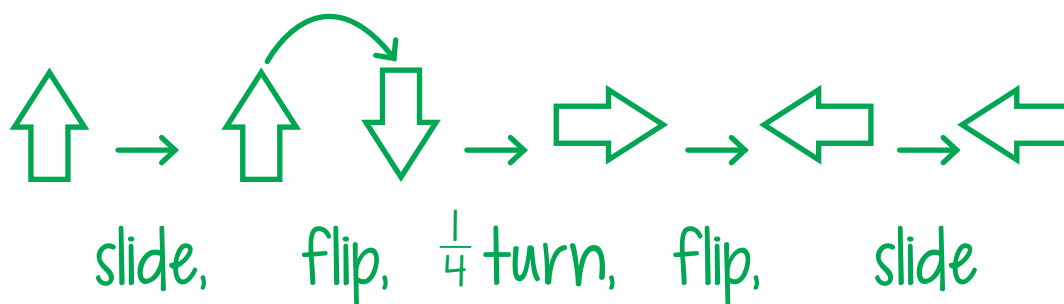
Is he correct?

- a Underline the question.    b Circle the facts.  
 c Act it out to solve the problem. Write the labels.



d Is Dizzy correct? no

2 Use an arrow  shape to create your own movement pattern. Write the labels.



3 Work with a partner. Act out each other's patterns to check if they are correct.