

# Drawing

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## Drawing

Chris Joyce (2006)

Students answer a question by drawing their responses. There are a number of variations.

Students may:

- draw a picture
- draw and label a picture
- draw and annotate a picture
- add to a picture

## When to use

Drawings can be a useful strategy to use:

- when writing is likely to be a barrier to students showing what they know;
- to assess student understanding of concepts;
- when there is a need to check students' familiarity with the selected context;
- to assess observation skills;
- to assess students' ability to communicate pictorially;
- before, during, and after teaching;
- to show progress. Students either do another drawing or add to their first;
- at all age levels.

## The theory

Drawing provides an open form of assessment, allowing students to respond in a variety of ways. They may enable students to show evidence of understanding that other assessment strategies mask.

Reference: White, R. and Gunstone, R. (1992). *Probing understanding*. London: Falmer Press.

## How the strategy works

Drawing a picture or diagram provides an alternative to writing. Sometimes it is more efficient to show ideas in a picture than in writing a lengthy explanation.

Some students are more motivated to demonstrate their knowledge or understanding through drawing than writing.

Students can decide on the balance between drawing and writing according to their strengths and preferences.

Comparing before and after drawings or adding to previous drawings assists students to evaluate progress they have made in their learning.

## What to do

Give a clear instruction that focuses on what you want to find out, for example, Draw a heron showing the features that enable it to catch its food in shallow water.

Instructions can be oral or written, or both.

State if you want the drawing labelled or annotated.

Ensure that there is enough room on the paper to complete the task neatly.

Have a list of features you expect to see in the drawing, for example, Draws appropriate beak and feet. Sometimes it is appropriate to share this with students:

- before they draw, to provide guidelines on components of their drawing;
- after they have completed their drawing, to encourage self-assessment or to identify areas of uncertainty.

### **Limitations**

Students' drawing skills may not allow them to show what they know.

The teacher may misinterpret aspects of the drawing. It can be difficult to analyse inferences students may have made in their drawings. The teacher may read more into a response than the student intended, or the teacher may miss relevant knowledge the student has, but cannot express well in drawing.

Students may add irrelevant detail because they enjoy the task of drawing, i.e., they lose the focus of the assessment.

### **Adapting the strategy**

The strategy is enhanced if students have the opportunity to talk about their drawing.

The teacher can add annotations dictated by students with limited writing skills.

### **Examples of ARB resources that use drawing**

There are many examples of assessment resources that include an element of drawing.

Below are examples of a range of types of drawing tasks, assessment purposes, and levels.

### **Resource List**

- Reflecting figures
- Reflecting the number 5
- Drawing equivalent fractions
- Different views
- Enlarging on a grid
- Scale factor enlargements
- Seaside cliff
- Using the centre of enlargement
- Isometric drawing
- Different views II
- Tessellating shaped bricks
- Tessellating patterns
- Transforming patterns III
- Drawing reflections III
- Drawing prisms
- Drawing 3-d Shapes II
- Smallest perimeter
- Make and sketch
- Enlarge the arrow
- Cutting cross-sections
- Mirrors and symmetry

- Design a Mars station
- Symmetrical road signs
- Draw the circuit diagram
- Food colouring in water
- Enlarging shapes II
- Tessellating patterns II
- Reflecting shapes II
- Redrawing fish
- Isometric drawings
- Isometric views
- How tidy?
- Bird's eye view
- Fitting together
- Inside the Earth
- My cat Sooty
- Drawing circles
- Different views III
- Graphing a story
- Isometric block tower
- Clay model cross-sections
- Clay model cross-sections II
- Dinosaur drawing
- Three states of wax
- Light up the bulb
- Reducing the logo
- Using the centre of enlargement II
- Reflecting shapes III
- Showing transformations
- Drawing 3-D shapes
- Drawing reflections
- Drawing block towers
- Circuit diagrams II
- Cross-sections
- Drawing isometric shapes
- Drawing isometric block towers
- Shapes and cross sections
- Reflecting and rotating the bird
- Designing badges
- Popcorn
- Making a block tower
- Constructing Ziggurats
- Different views IV
- Enlarging the bird
- Turning wheels
- Isometric sketches
- Line of symmetry
- The robot
- Sea creature
- Making enlargements
- Reflecting words III
- Centre of gravity
- Living underground

- What lives in our waterways?
- What's in the garden?
- A flax bush ecosystem
- A native bush ecosystem
- The water cycle
- Dissolving sugar
- The disappearing puddle
- Burning candle diagram

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