

Diagnostic TASK

FOCUS

Represent Shape

- Key Understanding 1

Reason Geometrically

- Key Understanding 2
- Key Understanding 3

Categorisation

Ages 6–12 years

Purpose

To reveal if students can:

- analyse the features of a shape and generalise about shapes.
- know the properties of shapes and say how shapes are the same or different
- see what language students use when describing common features.

Materials

Cut out copies of the 2D figures on Sheets 1–5, keeping within each categorisation.

Procedure

1. Arrange the 2D figures for one category. Ask: *Could you put these into groups of things that are the same. You can make as many groups as you want. Can you give me a name for this group? Can you tell me why you put these figures together?*

Repeat for each category of shapes.

Record the responses.

2. Additional questions at the interviewer's discretion, for example: *Why didn't you put these shapes (e.g. rhombus) with these shapes (e.g. squares)? Can you re-sort all of these figures so that there are fewer groups? Why did you sort them that way?*

Categorisation: Teacher Recording Sheet

Name _____ Year _____ Date _____

Record the student's responses to:

Category	Name for the group	What language was used?
1		
2		
3		
4		
5		

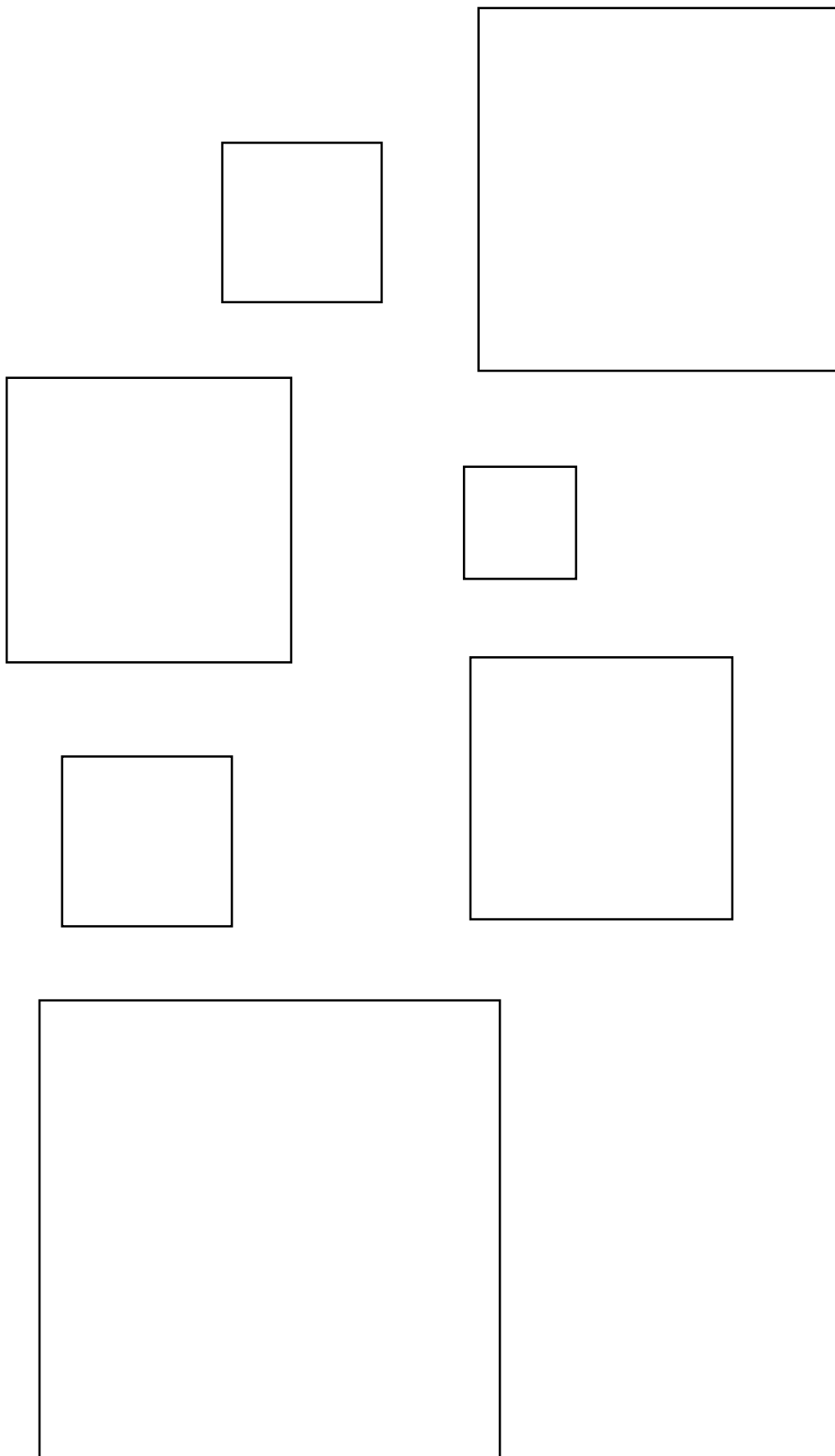
Additional Questions

**Did the student analyse and generalise about the shapes?
Record what the student said.**

Was the student able to re-sort the shapes? If so, how?

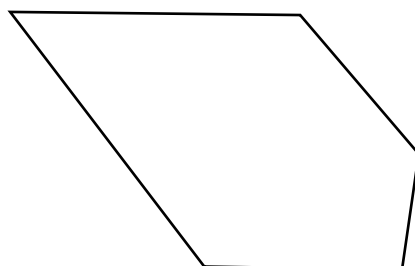
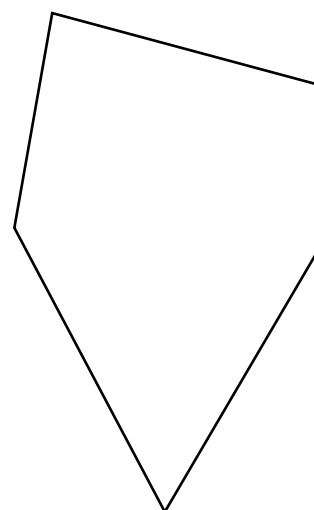
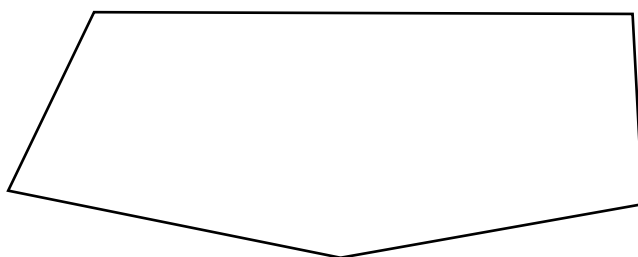
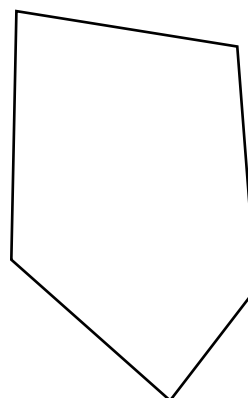
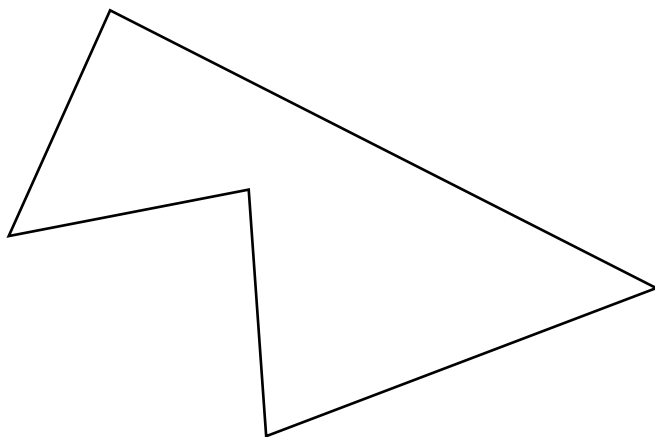
Categorisation

Sheet 1



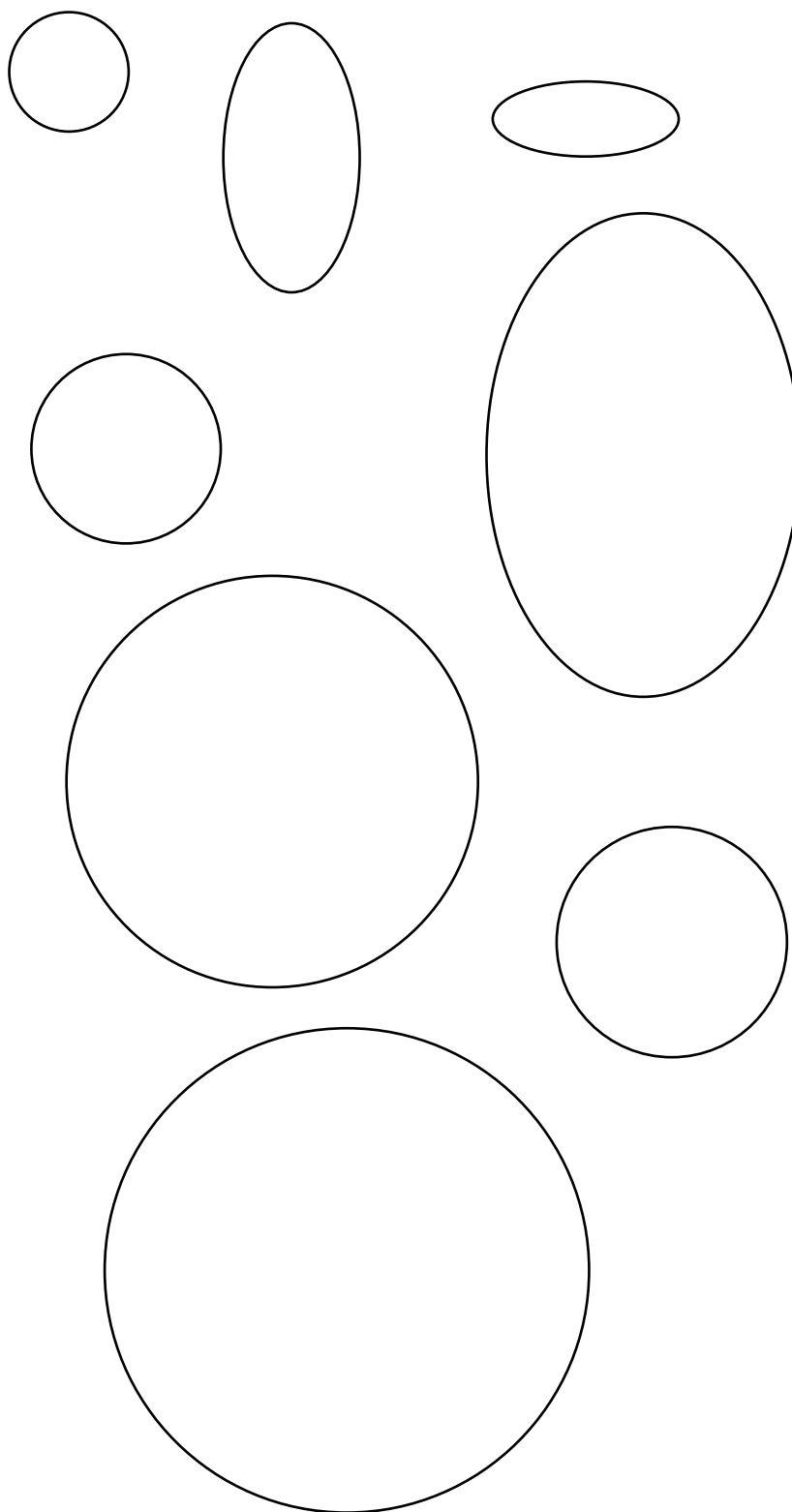
Categorisation

Sheet 2



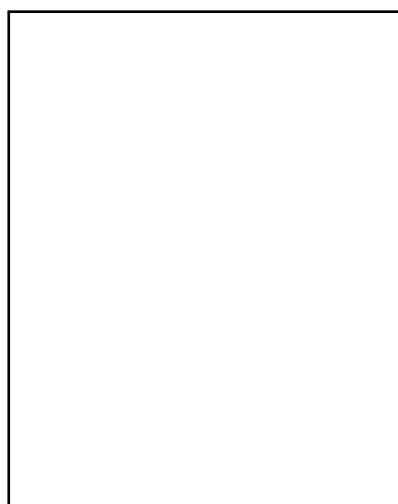
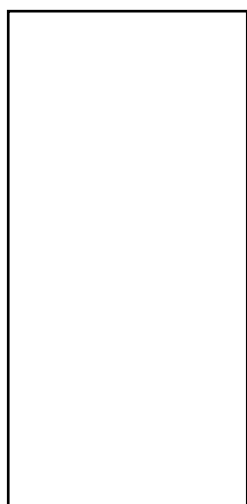
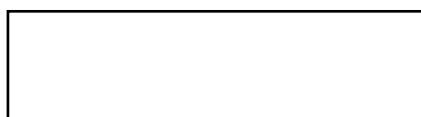
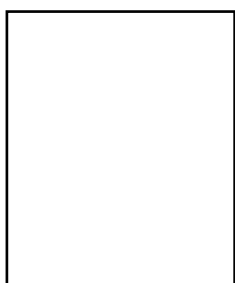
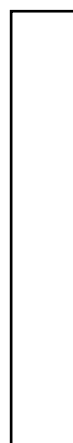
Categorisation

Sheet 3



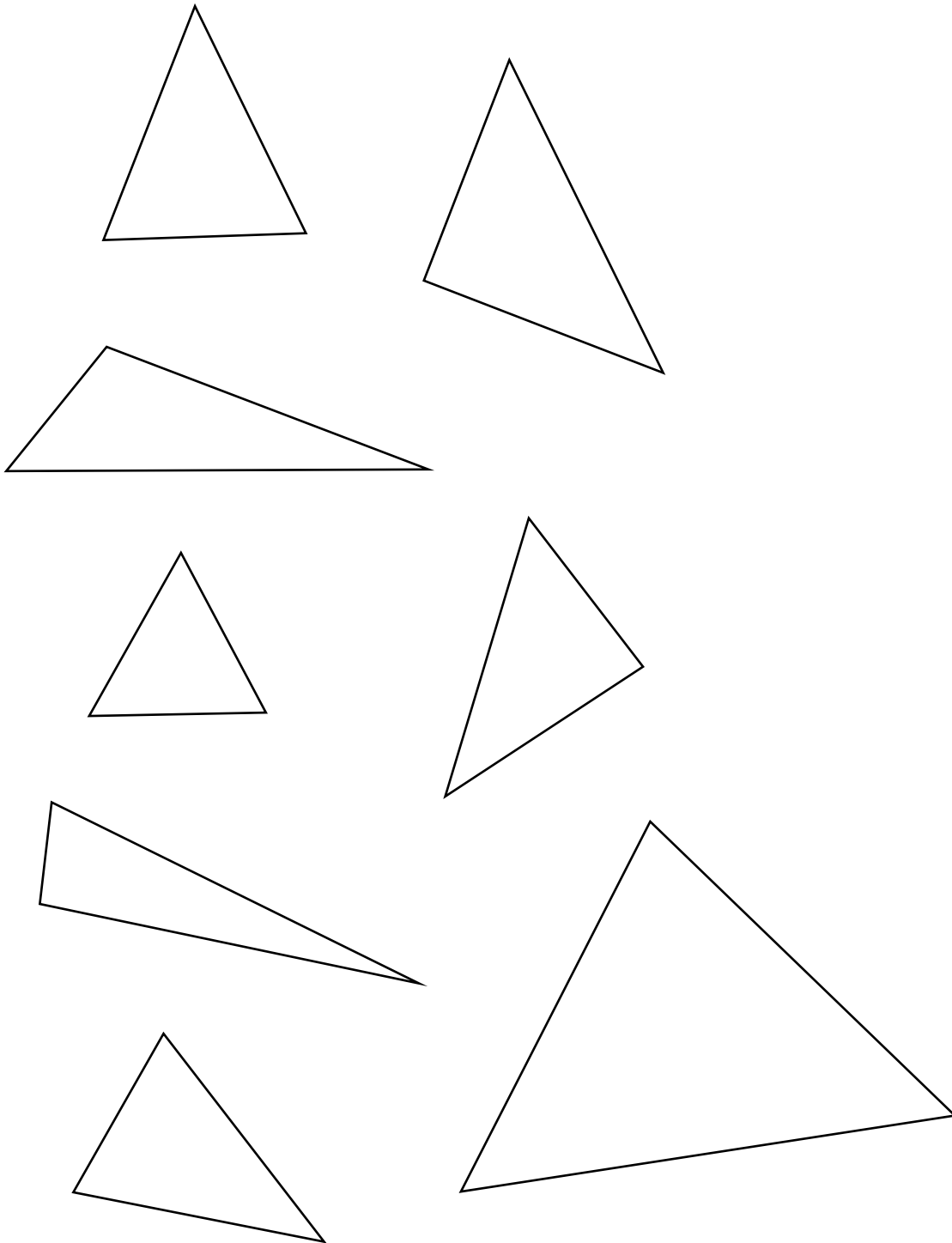
Categorisation

Sheet 4



Categorisation

Sheet 5





Summary of Teacher Recording Sheets

Diagnostic Task: _____ Focus: _____ Key Understanding: _____

Student	What does the student know?	What Key Understanding would you focus on next?	What mathematics?	What Sample Learning Activities?	Page

