

Assessing students' work

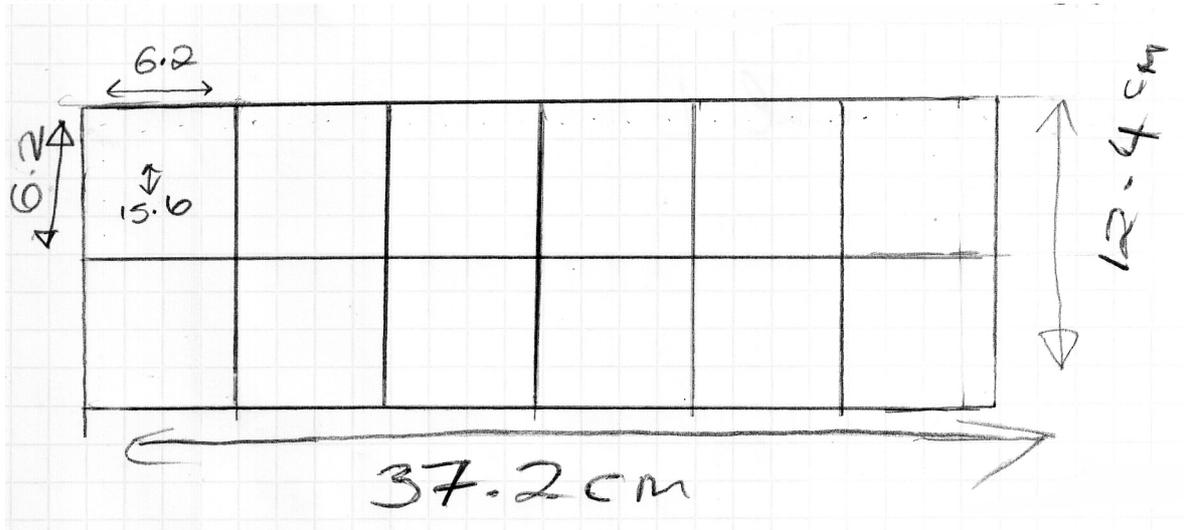
The following descriptions indicate typical levels of performance. After each description is an example of some work at this level.

Little progress

- **Representing:** Draws a representation of the bottle or box, but not a net. (e.g. may draw a single view from the side or top)
- **Analysing:** May simply take some measurements from the bottle. (e.g. transfers some measurements to a plan view)
- **Interpreting and evaluating:** Can visualise the box from the top or side.
- **Communicating and reflecting:** A simple diagram is drawn with some measurements added

Sample response: Kat

Kat has drawn a plan view of a suitable box. From the measurements on the plan we can see that Kat has correctly measured the diagram of the bottle. She does not attempt to draw a net.



Questions for Kat:

Kat could be encouraged to improve her response by asking the following questions:

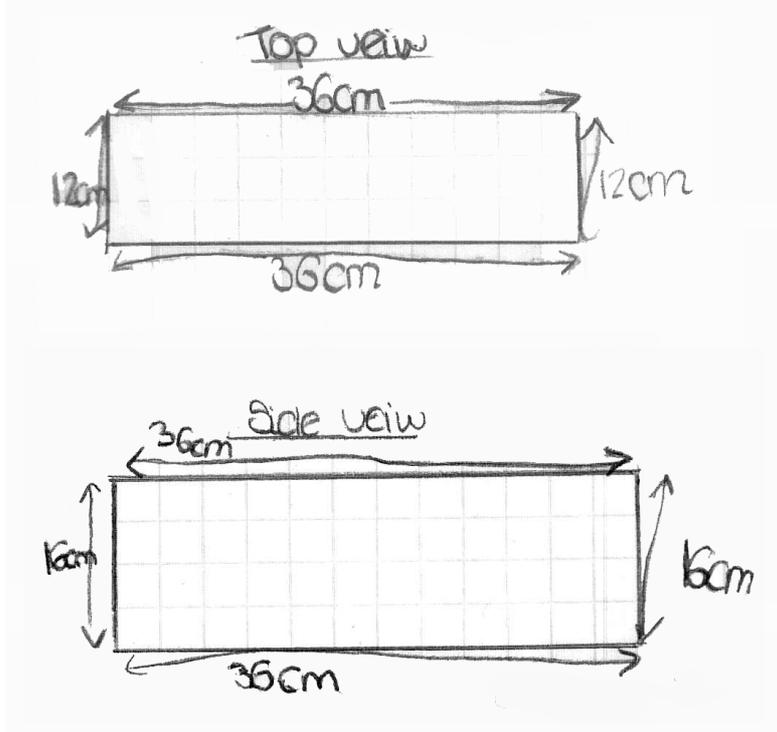
- *Look at one of the boxes I have brought in. How many sides does the box have?*
- *Now unfold the box so that it lies flat. How many different sides does a box have?*
- *Imagine a box that can hold 12 bottles. Which part of the net have you drawn? Now draw the other sides of the box to complete your net.*

Some progress

- **Representing:** Identifies significant parts of the bottle to measure and formulates some of the parts of a box design e.g. plan and side view
- **Analysing:** Transfers most of the measurements e.g. to top and side view
- **Interpreting and evaluating:** Visualises the box from the top and side.
- **Communicating and reflecting:** Diagram drawn and labelled but it is not a complete net.

Sample response: Jemma

From the measurements of the top view and the side view, we can see that Jemma has correctly measured the diagram of the bottle. She does not attempt to draw a net.



Jemma would benefit from unfolding a box so that she can see that the net of a box consists of six rectangles.

Questions for Jemma:

Jemma could be encouraged to improve her response by asking the following questions

- Imagine a box with the top view and side view you have drawn. How many more sides do you need to draw to complete the net?
- How many **different** sides does a box have?

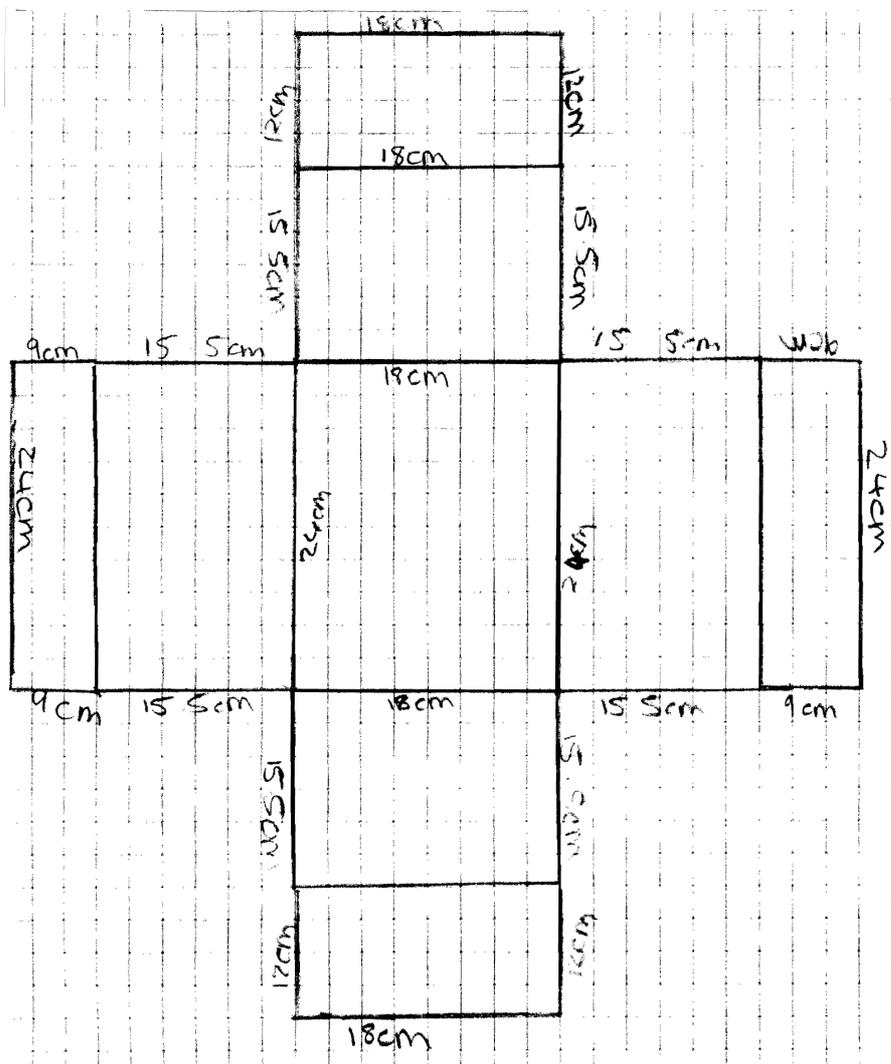
Task accomplished

- **Representing:** Identifies the significant parts of the bottle to measure and formulates a suitable net for the box.
- **Analysing:** Translates the appropriate measurements to the net for the box.
- **Interpreting and evaluating:** After designing the net, imagines this folded
- **Communicating and reflecting:** The box net is complete, clearly drawn and well labelled

Sample response: Billy

From Billy's net of a closed box, we can see that he has correctly measured the diagram of the bottle provided. Billy's closed box has two tops; one overlaps the other. He has arranged the bottles in a 3 by 4 array.

His diagram clearly shows the dimensions of his net.



Questions for Billy:

Billy could be encouraged to improve his response by asking the following questions:

- *Imagining all the sides folded together, are all sides covered?*
- *If you were to give the net flaps to enable it to be glued together, where would you place them?*
- *Would more or less material be needed for an array of 2 by 6 bottles?*