Resources: 4 round cakes of soap, scissors, ruler, blue-tack, $\mathrm{A}^{3}$ white cardboard, response sheet.

## Questions/instructions

In this activity you will be designing shapes for packaging 4 soaps together for presents. We could draw 2 soaps in a box like this: It would look like this from the side view:


1. Sketch 3 different shaped packages that would hold the 4 soaps.

Draw the packages here with the 4 soaps in them like the first picture.
The 4 soaps should be touching each other and the sides of the box so they don't move around.

| Number of packages drawn | 3 or more | 65 | 79 |
| ---: | ---: | :---: | :---: |
| 2 | 13 | 9 |  |
| Appropriateness of designs | 1 | 20 | 8 |
| none | 1 | 4 |  |
|  | strong | 13 | 37 |
|  | moderate | 42 | 41 |

We could draw the shape we will cut out of the cardboard to make our box like this:

2. Draw the shapes here that you would cut out of the cardboard to make your 3 packages. You don't need to draw a lid or a top for your package.

Appropriateness of nets

| strong | 5 | 28 |
| ---: | :---: | :---: |
| moderate | 39 | 41 |
| weak | 56 | 31 |

3. Now make up one of the shapes you drew in question 2 with the cardboard. Make it big enough to hold the 4 soaps.

Appropriateness of model
strong
10
38
moderate $30 \quad 38$
weak 6024

