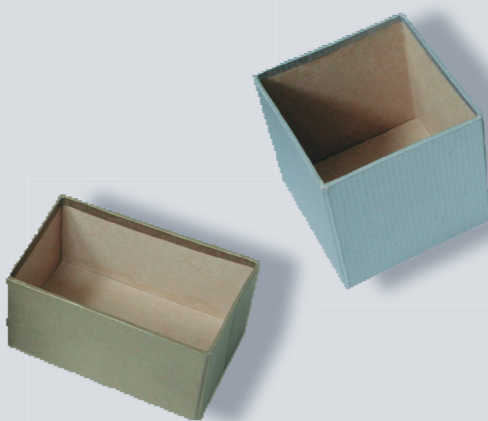


*Approach:* Station

*Level:* Year 8

*Focus:* Measuring boxes and calculating volume.

*Resources:* Gold box, silver box, ruler, calculator.



*Questions/instructions:*

In this activity you will be finding out which box has the greater volume. Measure the outside of the boxes.

1. Work out the volume (capacity) of the gold box.

**Answer: 160 cm<sup>3</sup>**

within 10% and correct units

within 10% but units not correct

2. Work out the volume (capacity) of the silver box.

**Answer: 216cm<sup>3</sup>**

within 10% and correct units

within 10% but units not correct

3. Which box has the greater volume—the gold box or the silver box?

silver box

*% responses*

2001 ('97)

**year 8**

18 (11)

12 (18)

16 (12)

14 (17)

64 (63)

*Commentary*

Only 30 percent of students in 2001 calculated the volume of each box correctly. This compared with 29 percent in 1997, but more students used the correct units in 2001 than in 1997.