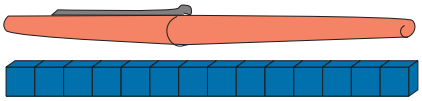
Name _____ Date _____

Yolanda Measures Volume by Displacement

Estimating Volume

Yolanda estimated the volume of a marker by building a model of it with her centimeter connecting cubes. She counted the cubes and estimated that the volume was about 14 cubic centimeters.



1. Use centimeter connecting cubes to estimate volumes as Yolanda did. Make models of at least four objects. Your teacher will help you choose objects. One of your objects should be 10 centimeter connecting cubes as shown in the table below. Record your estimates in the data table. Yolanda's data for the marker is shown.

Volume By Displacement

O Object	*E* Estimated Volume from Cube Model	V Volume by Displacement
Marker	14 *cc*	12 *cc*
		

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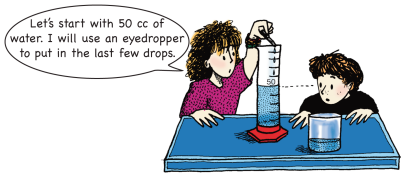
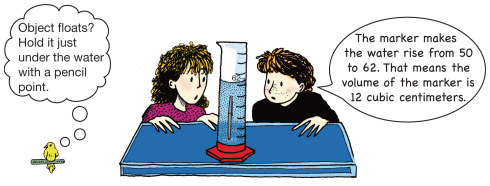
Name _____ Date _____

Using Displacement

To find the volume of the marker, Yolanda and Josh first put 50 cubic centimeters of water into a graduated cylinder.



Then they titled the graduated cylinder and slowly slid the marker down the side so the water would not splash.



2. Explain how Josh found the volume of the marker.

3. Measure the actual volume of each of the objects you used in Question 1 by putting each object under water in a graduated cylinder. How much does the water rise? Record each volume in the last column of your data table.

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Questions 1–3

1.* Items' estimated volumes will vary. See Figure 2 in the lesson for a sample data table.

2.* Possible response: The water level started at 50 cc. Josh slid the marker into the cylinder and the marker pushed the water level up to 62 cc. The marker displaced its volume in the water. 62cc − 50cc = 12 cc. The marker's volume is 12 cc.

3.* Items' actual volumes will vary. See Figure 2 in the lesson for a sample data table.

***Answers and/or discussion are included in the lesson.**