Predict whether an object will sink or float.

Predict whether each object will sink or float before conducting your tests. Record your results in the table below.

Remember to calculate the density of each object you divide the mass by the volume.

density = mass ÷ volume

object	prediction sink or float	mass (g)	volume (cm^3)	density (g/cm^3)	result sink or float
tennis ball			150		
golf ball			50		
ping-pong ball			35		
marble			2		
base-10 cube			1		

What do you notice about the relationship between the density of an object and whether it floats or sinks?

Stretch: What will happen if you use the same material with a different mass?

Challenge: Explain which material you would use to create a buoyancy aid and why.

Predict whether an object will sink or float.

In the space below, choose one object you tested and draw the experiment. Using arrows, draw and label the forces acting on it.