WHAT WILL FLOAT?

INTRODUCTION

This is a formative assessment probe that can be used with the activities concerned with floating. You can use it in your Engage, or in later stages of the lesson cycle. Alternatively, this probe can be used repetitively, having students revise and improve their responses.

STANDARDS

NGSS 5-PS1-1
Develop a model to describe that matter is made of particles too small to be seen.

MS-PS1-1
This fifth-grade performance expectation requires lots of experiences for students to fully grasp. Even after that grade, students need to keep working on the concept. While examining these phenomena is a great time for students to engage in the Science and Engineering Practices of Developing and Using Models, and Constructing Explanations, it is also an opportunity to consider the Crosscutting Concept of Scale, Proportion, and Quantity. This is also a good step on the way to meeting the middle school performance expectations about the atomic nature of matter.

NAME: DATE:

WHAT WILL FLOAT?

Some students are discussing why boats float in science class. Zoe says that the boat floats because it is lighter than the water. Tomas says that the boat floats because it takes up less space than the water. Kris says that the boat pushes water out of the way, and that's why it floats.

A patrol-torpedo boat traveling across Lake Pontchartrain, 1944. *(The National WWII Museum, 2008.379.045)*

What do you think? Build on the ideas that Zoe, Tomas, and Kris shared to explain why a boat floats.