

# Physics Unit 16: Fluids

<b>Unit #:</b>	APSDO-00019211	<b>Duration:</b>	2.0 Week(s)	<b>Date(s):</b>	
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**Team:**  
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**Grades:**  
11

**Subjects:**  
Science

## Unit Focus

In this unit, students will study fluids and explore how the density and/or movement of a fluid affects pressure, forces, and buoyancy. In addition, students will learn how Bernoulli's principle explains the behavior of objects such as curve balls and boomerangs. Summative assessments may include: written tests/quizzes composed of application problems and modelling questions which assess student's understanding of how fluids impact the behavior of a variety of objects; as well as lab reports composed of experimental design, laboratory practice, and data analysis components. Primary instructional materials may include an online physics textbook (linked from teacher webpage), supplemental online and print resources, and related equipment and materials.

## Stage 1: Desired Results - Key Understandings

Established Goals	Transfer
<p><b>Next Generation Science Standards (DCI)</b> <i>Science: 6</i></p> <ul style="list-style-type: none"> <li>For any pair of interacting objects, the force exerted by the first object on the second object is equal in strength to the force that the second object exerts on the first, but in the opposite direction (Newton's third law). <i>PS2.6.A1</i></li> <li>The motion of an object is determined by the sum of the forces acting on it; if the total force on the object is not zero, its motion will change. The greater the mass of the object, the greater the force</li> </ul>	<p><b>T1</b> Integrate knowledge from a variety of disciplines and apply it to new situations to make sense of information, formulate insightful questions, and/or solve problems</p> <p><b>T2</b> Develop a valid scientific conclusion, assess its validity and limitations, and determine future course of actions to inspire further questions</p> <p><b>T3</b> Communicate scientific information clearly, thoroughly, and accurately.</p> <p><b>T4</b></p>