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Waters Rockets for Teaching Momentum and Energy Concepts JIM SIZEMORE, Tyler Junior College, R.J. PARISH, JAMES T. HOOTEN, Center for Earth & Space Science Education at Tyler Junior College — Concepts regarding momentum and energy are especially difficult for students to grasp and concrete examples are valuable. We will discuss, and show video, of launching water rockets using standard plastic soda and water bottles and describe the launcher composed of PVC pipe and a bicycle pump. We pose the question to students of the ratio of water to air that achieves the greatest time-of-flight. Immediate feedback is obtained by immediately testing student's hypotheses. After several launches the students understanding of Newton's Third Law and momentum and energy concepts improves. This is an engaging activity, students enjoy watching their instructors become thoroughly drenched, and students are enthusiastic. This enthusiasm, fun, and immediate testing of hypotheses reinforce momentum and energy concepts as will be shown by questionnaire results.

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