

Extension: Bike Club Inquiry Labs



STEM bicycle club

Name _____

Club _____



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Activities Included

Page	Activity	Focal Concepts
5-11	Water balloon drop	Measuring speed, unit conversions, sources of error
12-14	Gears vs. speed	Ratios, graphing
15-18	Work and power	Calculating work and power
19-20	Create your own experiment!	Scientific method

Overview of the Bike Club Inquiry Labs

You have reached the extension section detailing the Bike Club Inquiry Labs. Congratulations!

In the following pages, students move beyond the disassembly and reassembly of major bike systems that comprise the bulk of STEM Bicycle Club. The next step is to use these bikes in experiments students design (or fine tune) to explore the physics of motion and inertia. The experiments include planned activities to spark curiosity and learning. The emphasis of these pages is inquiry-based learning, as students gain first-hand experience with the experimental design process and basics of scientific investigation, and as a result begin to develop a deep understanding of some fundamental physics concepts.

The following activities were developed in a pilot summer camp generously funded by a GCSC Summer of STEM grant.

