

Switch Vehicle - Middle School/High School  
Syllabus - 2021/2022

INSTRUCTOR

Chris Anderson

COURSE DESCRIPTION

In this weekly course, students will learn electrical theory, and apply this learning to the construction and maintenance of an electric vehicle.

Students will learn how to build electrical circuits, debug circuits, and make improvements or alterations to pre-built circuits. Students will also gain skills with electrical soldering and everyday safety for working with low and high voltage systems.

## QUARKS

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Students are encouraged to earn an average of **5 quarks/week**. **One trimester of elective credit** is granted after a student earns **50 quarks**.

## Assessments

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All activities are graded as pass/no pass.

Activity Completed	Quarks Earned
Build a functioning electrical circuit, following schematics provided by the teacher	5 quarks/activity
Complete a maintenance task on the Switch Vehicle	5 quarks/activity
Finish an assignment worksheet on electricity (Ohm's law, voltage, etc)	1-2 quarks/activity
Demonstrate proficiency in one or more areas of Switch Vehicle safety and assembly	1-2 quarks/activity

# STANDARDS

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The state of Oregon does not have standards in place for the Switch Vehicle. This course is considered a STEM extension. More information may be found with the Oregon Department of Education.

<https://www.oregon.gov/ode/educator-resources/standards/STEM/Pages/default.aspx>