



Solar Car Multidisciplinary Lesson Collection

AUTHOR

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STEM Pre-Academy

GRADE LEVEL

6
7
8

CONTENT TOPICS

Engineering
Engineering Design
Math
Science

DESCRIPTION

This in-depth lesson collection includes everything a teacher needs to facilitate a multidisciplinary solar car unit. Students will investigate the scientific and mathematical principles required to build a solar powered vehicle. They will use the information they gather through investigations on solar energy, gear ratios and aerodynamics to engineer their cars for optimal operation and to meet criteria with which they are confronted. Each lesson includes learning goals, procedures, presentation materials, student worksheets, and assessments. Additional instructional resources include background on the engineering design process, technical documentation for solar car materials, and multimedia files of student artifacts.

SUGGESTED STANDARDS CONNECTIONS

Common Core ELA	CCSS.ELA-LITERACY.R Reading CCSS.ELA-LITERACY.SL Speaking and Listening CCSS.ELA-LITERACY.W Writing
Common Core Math	CCSS.MATH.PRACTICE.MP2 Reason Abstractly and Quantitatively
NGSS	MS-ESS2 Earth's Systems MS-ETS1 Engineering Design

