



SOLAR CAR RUBRIC	Excellent (15-13 points)	Good (13-10 points)	Satisfactory (9-6 points)	Need Improvement (5-0 points)
Factors				
<i>Student is able to use the materials provided to create a design for the solar car that shows thought and scientific reasoning.</i>	Design shows thought and is backed up by scientific thinking.	Design shows thought, and has some scientific rationale.	Design shows thought but is not backed up by any scientific reasoning.	Design shows little thought.
<i>Student is able to implement their design to create a solar car that moves.</i>	Student is able create a car that moves smoothly.	Car moves, but movement could be better if some element of the car were to be altered.	Implementation shows thought, but the car does not move.	Implementation lacks thought or effort.
<i>Student is able to articulate why their car did or did not move.</i>	Student successfully identifies what factors contributed to the movement of their car or lack of movement (I.e. body was too heavy, wheels were to small, angle of the panel was too steep, etc.).	Student identifies some factors that contributed to the movement or lack of movement of the car.	Student has trouble articulating why their car did or did not move.	Student does not articulate why their car did or did not move.
<i>Student creates a prediction for what would happen if a variable, such as angle of the solar panel, is changed.</i>	Student can identify variables that affect the movement of the car and can articulate their ideas about what might happen if the variables were altered.	Student can identify some variables that affect the movement of the car and can articulate their ideas about what might happen if the variables were altered.	Student can identify some variables that affect the movement of the car but has trouble predicting what might happen if the variables were altered.	Student cannot identify variables or make predictions regarding the movement of the car.

<p><i>Student can design an experiment to test this prediction.</i></p>	<p>Student creates a thoughtful experiment that changes one variable at a time.</p>	<p>Student creates a thoughtful experiment but it could be improved slightly.</p>	<p>Student creates a thoughtful experiment but multiple variable are altered at once.</p>	<p>Student cannot design an experiment.</p>
<p><i>Student can discuss why alternative forms of transportation, such as solar cars may be favorable or unfavorable.</i></p>	<p>Student is able to discuss pros and cons of solar cars, list other alternative modes of transportation, and discuss why these might be important to society.</p>	<p>Student is able to discuss some pros and cons of solar cars, list one other alternative mode of transportation, and discuss why these might be important to society.</p>	<p>Student is able to discuss pros or cons of solar cars, but can't list other alternative modes of transportation, and discuss why these might be important to society.</p>	<p>Student cannot contribute to the discussion.</p>