

JSS 2-Week Syllabus

Day	Topics	Activities/Tasks	Resources
1	Intro to JSS Design Process Vehicle Design	<ul style="list-style-type: none">• View introductory JSS slideshow/video• Briefly describe components of a solar car• Introduce the design process	<ul style="list-style-type: none">• Introductory JSS slideshow/video• The Design Process
2	Basic Components of a Solar Car	<ul style="list-style-type: none">• Discuss vehicle design and components• Form working groups and begin brainstorming for car concepts	<ul style="list-style-type: none">• Basics of Model Solar Car Design lesson
3–4	Applied STEM Concepts	<ul style="list-style-type: none">• Discuss STEM principles relevant to car design: friction, aerodynamics, torque, etc.• Groups develop car designs	<ul style="list-style-type: none">• Investigating Model Car Materials lesson
5	Solar Power	<ul style="list-style-type: none">• Discuss principles of solar power and photovoltaics	Understanding Solar Energy lesson
6–8	Design Review & Car Construction	<ul style="list-style-type: none">• Groups present their designs and explain choices• Groups begin constructing their cars	<ul style="list-style-type: none">• Design Review lesson
9	Design Tests & Optimization	<ul style="list-style-type: none">• Groups test their cars and make adjustments to optimize performance	
10	Final Race & Debrief	<ul style="list-style-type: none">• Race cars to test performance• Discuss process and reflect on lessons learned	<ul style="list-style-type: none">• Setting Up a Solar Car Race Teacher's Guide PowerPoint (in resource links list)