



BG\_maria\_chart.png



M1\_I1\_a2\_01\_option\_2.png



M1\_I1\_a2\_01\_option\_3.png



M1\_I1\_a2\_01\_option\_5.png



M1\_I1\_a2\_01\_option\_6.png



M1\_L1\_A3\_04\_BG.png



M1\_I1\_a3\_04\_option\_2.png



M1\_I1\_a3\_04\_option\_5.png



M1\_I2\_a2\_01\_option\_2.png



M1\_I2\_a2\_01\_option\_6.png



M1\_L2\_A2\_01\_pic1.png



M1\_L2\_A2\_01\_pic2.png



M1\_L2\_A2\_01\_pic3.png



M1\_L3\_A1\_01\_pic1.png

**Plugging In to the Sun**

**Unit Summary:** This unit introduces students to the concept of solar energy. The class study begins by acting out the Earth's motion around the sun. Students learn how the sun's energy is used to power our world. They then learn about the Earth's position and rotation with respect to the sun and the resulting seasons. Students work as engineers, and their task is to build a solar powered car. This task requires them to research and design a vehicle that can travel a set distance using only solar power.

**Curriculum-Framing Questions:**

- How can we use solar energy to power our world?
- What causes day/night?
- What does our planet do as it orbits the sun?
- Why is it important to consider new alternatives to fossil fuel?
- How can we use energy to move objects in our environment?

**Content Questions:**

- How does the Earth's position limit solar heat transfer?
- How does the Earth's rotation limit solar heat transfer?
- How does the Earth's orbit affect the amount of solar energy it receives?

**Things You Need:**

- Construction paper
- Glue sticks
- Paper plate
- Popsicle sticks
- Ruler
- Scissors
- Tape
- Tissue box
- White board
- White board markers

**Skills You Need:**

- Collaboration
- Communication
- Design/Invent
- Problem Solving
- Reflection
- Revision/Edit

**Math Team Project: Energy Efficient Projects**

**Volume 1, Issue 3**

**11.11.04**

**Special prints of interest:**

- Construction
- Communication
- Design-Invent
- Problem Solving
- Reflection
- Revision/Edit

**Survivor International**

**Things are heating up around here!**

With winter here, we had to learn much more than how to just cook and eat.

We found out that solar ovens are great for cooking because they don't use propane or natural gas. They also help to reduce the number of trips and time spent outside. As engineers for the future, we are learning that we can do many things without the use of oil.

M1\_L3\_A1\_01\_pic2.png

M1\_L3\_A1\_01\_pic3.png



M1\_L3\_A2\_01\_pic1.png



M1\_L3\_A2\_01\_pic2.png



M1\_L3\_A2\_01\_pic3.png



M1\_L3\_A2\_01\_pic4.png



M1\_L3\_A2\_01\_pic5.png



M1\_L3\_A2\_01\_pic6.png



M1\_L3\_A2\_01\_pic7.png

A screenshot of a presentation slide titled "Survivor International". The slide includes a map of Africa, a section titled "Things are heating up around here!", and a sidebar with navigation links like "Home", "About", "Programs", "Events", "Contact", and "Logout".

M1\_I3\_a4\_01\_option\_3.png



M1\_I3\_a4\_01\_presentation.png



M2\_L4\_A1\_03\_pic\_4.png



M2\_L4\_A1\_03\_smallpic\_1.png



M2\_L4\_A1\_03\_smallpic\_2.png



PBL\_CO\_L4\_01\_folder.png



PBL\_M1\_L0\_01.png



Pbl\_M1\_L1\_A3\_02\_BG.png



Pbl\_M1\_L1\_A3\_05\_frog.png



Pbl\_M1\_L1\_A3\_05\_greek.png



Pbl\_M1\_L1\_A3\_05\_nutri.png



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pbl\_m1\_l2\_a1\_02\_C2.png



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pbl\_m1\_l2\_a1\_02\_C4.png



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Pbl\_M1\_L2\_A2\_01\_op6.png

Project Characteristics	
Criteria	Score
Students are at the center of the learning process.	<input type="checkbox"/>
The teacher is the facilitator of student learning experiences.	<input type="checkbox"/>
Students work in groups to complete tasks.	<input type="checkbox"/>
Students work in pairs to complete tasks.	<input type="checkbox"/>
The project involves inquiry and multiple forms of assessment.	<input type="checkbox"/>
Students demonstrate ownership of their learning.	<input type="checkbox"/>
Students make connections and relate their learning to real world applications.	<input type="checkbox"/>
The project has real world consequences.	<input type="checkbox"/>
Students demonstrate an ability through teamwork, processes, or technology to create and enhance student learning.	<input type="checkbox"/>

Solar Energy Project Checklist	
Are we completing it:	Presentable
Project Tasks	
Project Description	
Project Skills	
Project Materials	
Project Resources	
Project Tools	
Project Timeline	
Project Budget	
Project Plan	
Project Assessment	
Project Rubric	
Project Portfolio	
Project Summary	



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Pbl\_M1\_L3\_A1\_01\_Pic2.png

Pbl\_M1\_L3\_A1\_01\_Pic3v1.png

Pbl\_M1\_L3\_A1\_01\_Pic3v2.png



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PBL\_M1\_L3\_A1\_02\_01.png

PBL\_M1\_L3\_A1\_02\_02.png

PBL\_M1\_L3\_A1\_02\_03.png



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PBL\_M1\_L3\_A5\_checklist.png

question\_screen\_bg\_4.png

summary\_BG\_2.png



summary\_BG\_10.png