

TARWATER ELEMENTARY SCHOOL STEM LAB

Activity ID: M-4

Activity Name: Sun and Solar Energy

MATERIALS:

Materials Provided in Bin:

Item:	Quantity:	Notes:
Lesson Plan	1	
Solar Beads	4 bags	
Other Solar Items	8	Extra solar items not specific to this experiment; 2 - Educational Solar Robot Kits; 6 solar racers
Sunscreen		
Sunglasses		

Materials In STEM Lab or Classroom (Common Items):

Item:	Quantity:	Notes:
String	4	Multiple Colors, can use to create bracelet with beads
Baggies	3 per group	If using sunglasses (one for sunscreened beads, one for unscreened beads, and one for beads protected by sunglasses)

Materials Teacher/Parents Need to Provide:

Item:	Quantity:	Notes:
None		

WHAT ARE WE DOING?

Discuss solar rays, solar energy

VIDEOS / LINKS:

None

SAFETY NOTES:

None

SCIENCE TERMS:

Solar Energy – radiant energy emitted by the sun

UV Rays – invisible rays, part of the energy that comes from the sun and can burn the skin

Sunproof – Resistant to the sun's rays or damage by the sunlight

STEPS:

1. Discuss what types of things are impacted or powered by the sun.
2. Review the different benefits of sunscreen and proper usage.

3. Separate beads so some can have sunscreen and others will not.
4. Put sunscreen on some beads and keep them in the sunscreen baggie.
5. Do not put sunscreen on other beads and keep them in the non-sunscreen baggie.
6. Put both bags in the sun - note any differences in the different bags.
7. Use the sunglasses to protect a third bag of beads (with no sunscreen) from direct sunlight.

QUESTIONS TO ASK STUDENTS:

How could we better block UV rays from the beads?

What did you learn about how UV rays would affect your skin?

Does putting on sunscreen block the beads from UV rays permanently?

**IF RUNNING OUT OF A SUPPLY IN THE BIN, PLEASE
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