

**MEASURING SUNLIGHT: THE PYRANOMETER may advance the following  
NEXT GENERATION HIGH SCHOOL SCIENCE STANDARDS**

**ENERGY**

Students who demonstrate understanding can:

**HS-PS3-1.** Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.

**HS-PS3-3.** Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.

**WAVES AND ELECTROMAGNETIC RADIATION**

Students who demonstrate understanding can:

**HS-PS4-5.** Communicate technical information about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy.

**SPACE SYSTEMS**

Students who demonstrate understanding can:

**HS-ESS1-1.** Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.

**HUMAN SUSTAINABILITY**

Students who demonstrate understanding can:

**HS-ESS3-2.** Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.

**ENGINEERING DESIGN**

Students who demonstrate understanding can:

**HS-ETS1-2.** Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.