

Focus on Energy

Transcript

Electrical Energy, Classroom Activity 3

Elicitation Discussion: Before using a solar panel to make a red wheel spin, students discuss their ideas about energy flow in the context of solar panels. Where does the energy come from? And where does the energy go?



TEACHER: I want you to turn to your notebook page. First notebook page for this section. And it's got two pictures on it. It's the second to last page from the back.

So everybody's notebook page should be open to two pictures. And, how would you describe the first picture? Yeah, go ahead.

STUDENT: It's a building with solar panels on the roof.

TEACHER: It's a building with solar panels up on the roof. And how about the next picture?

STUDENT: Probably, it's a farm. Farmed with solar.

TEACHER: Yeah, it's called, yeah, Shelby Farm Solar Farm. It's a solar farm. So, if you look at these two pictures, Let's look at the top picture first and answer to those questions. Where does the energy come from? And where does the energy go? What are your ideas?

There's no right answer. We're just thinking about ideas. If you look at a picture of solar panels on the roof, where does the energy come from? Where does the energy go? You want to start us off?

STUDENT: It comes from the solar panel.

TEACHER: So the energy comes from the solar panel. And just listen to each other and you can build on those ideas. Yeah?

STUDENT: The energy that the solar panels have come from the sun.

TEACHER: So the energy from the solar panels comes from the sun.

STUDENT: The sun provides like the energy heat, and then when it goes into the solar-- When the solar panel absorbs it, it turns into electricity.

TEACHER: Electrical energy. So you've just said that the idea that the, well you called heat energy or energy from the sun, in the solar panel gets-- does anybody remember the word we say it changes type?

STUDENT: Transformed?

TEACHER: Good. It's transformed into electrical energy in the solar panel. Anybody want to add to those ideas?

Anything else? Yeah.

STUDENT: The bottom picture, the electrical energy goes to the grid.

TEACHER: Say it loud one more time so everybody can hear.

STUDENT: The electrical energy in the bottom picture goes to the grid first and then to our houses.

TEACHER: All right, it goes to the grid. Would you say a little more about the grid?

STUDENT: It's basically all the wires in the city that connects where the electricity comes from and where it goes.