

Doable Renewable “Green” Energy Tech Camp

8:45 a.m. **What is Renewable Energy** –Present and discuss the various forms of renewable energy in general terms. What is Renewable Energy, what is non-renewable energy? How can we tell the difference and why is it important

9:00 a.m. **Energy efficiency**

- Recycle, Reuse, Reduce

9:15 a.m. **Solar Application of Renewable Energy**

- What are photovoltaics and how do they work?
- What types of jobs and applications are there for careers in solar?
- What type of education is necessary?
- Set up solar ovens if the sun is out, talk about how the sun heats the oven and reflection of the panels. Have them think about which way to orientate the oven and what angle it should be set at. Watch how they all stand in front of it and can't figure out why it doesn't heat up! Have them guess how hot it will get in the oven.
- Solar beads experiment – While they are checking to see how hot the oven is getting, have them start talking about solar beads and experiments with sunscreen and containers.
- Put smores in oven once heated, place on aluminum foil and watch out – they are hot and gooey.

10:00 a.m. Break to eat smores and have a drink, they can also finish up with the beads.

10:10 a.m. **Wind Applications in Renewable Energy**

- What types of jobs and applications are there for careers in wind?
- What type of education is necessary?
- How do the wind systems work?

Geothermal Applications in Renewable energy

- What types of jobs and applications are there for careers in geothermal?
- What type of education is necessary?
- How do the geothermal systems work?

Biofuels, hybrid cars and other new technology

- What are the new technologies and what types of careers are available?

10:30 a.m. **Solar Race Cars** – build them, you will need some extra hands.

11:15 a.m. **Races** – have them go outside and race the cars, I have them hold off on placing the Velcro to hold the panel until they do some experimenting to find the best place for the panel.

11:30 a.m. **Morning concludes**