PLUGGING INTO THE SUN

" Tell me, I'll forget. Show me, I'll remember. Let me do it, I'll understand"

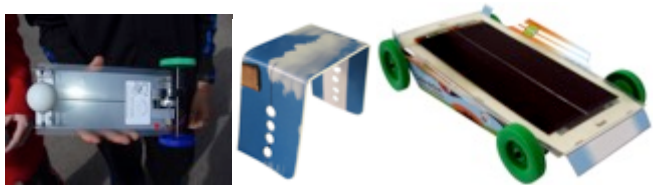
Up-skilling teachers and students in renewable energy technologies

Noordwijkerhout Teachers conference – 13th/14th Dec. 2019

Seven teachers attended the workshop conducted by David Garlovsky and Sieberen Idzenga**.** Of course we would have liked increased numbers. We built a solar car using solar-active flexible cell and were shown a solar car using a recycled tetra pack for the chassis.

There was a choice of gears and front assembly options e.g. adjust angle of cell, ping pong ball and to Insert switch into circuit to connect to 1.2v battery unit to use indoors.

To quote one teacher: "Last Saturday I attended your workshop *Plugging into the Sun – Mini Solar in Education* during the WND-Physics conference (Noordwijkerhout, the Netherlands). My self-built car was put together quickly and drove very well, especially with the ping-pong ball on the front. I was impressed, thank you for the inspiration. I would also like my students to build a sustainable car that drives well. My plan is to have this carried out in the first week of January during the science week at our school."



An angle adjustment construction guide provided instruction to build this component. Participants raced their cars to test performance – and were provide **Pit-Stop** activities to record result of races and for use in a class; and enjoyed this activity.

Participants transformed car into a solar boat using components from car and recycle 500ml plastic bottles for hulls and made aware of a guide to build a recycled cardboard water rig.

The solar car activity give students the opportunity to gain knowledge in application of Science, Technology, Engineering and Mathematical (e.g. gear ratios, build wheels) concepts via renewable energy technology and strengthen students problem solving skills encouraging careers in engineering and its relationship to issues of sustainability and climate change.

Free resources: CD secondary school x-curriculum model, technical and support documents showing solar car designs were made available, e.g. **Virtual car** to build and race solar car.