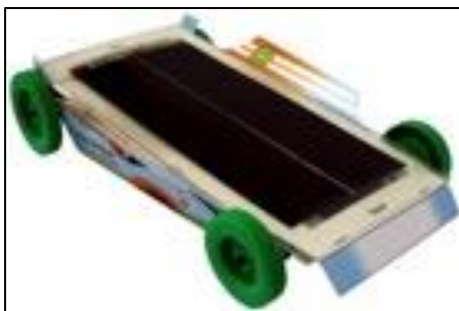


Plugging into the Sun – Mini Solar in Education

David Garlovsky en Sieberen Idzenga

We built a solar car using a [solar-active flexible cell](#) and were shown a solar car using a recycled [tetra pack](#) for the chassis.

There was a choice of four gear options ([3:1](#), [9:1](#), [27:1](#) & belt drive), four front assembly options, e.g. adjust angle of cell, ping pong ball and to insert switch into a circuit to connect to a 1.2 V battery unit to use indoors.



The [angle adjustment construction guide](#) provides instruction to build component to adjust the angle of cell in relation to where the sun is in the sky, e.g. at mid-day it is best to have the cell in a horizontal position.

Participants raced their cars to test [performance](#) – and were provide [Pit-Stop](#) activities to record the results of races and for use in class.

Participants transformed the car into a [solar boat](#) using components from the car and recycle 500 mL plastic bottles for hulls. They were made aware of a guide to build a recycled [cardboard water rig](#).



The practical activities give students the opportunity to gain knowledge in application of Science, Technology, Engineering and Mathematics (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 available: CD secondary school x-curriculum model, [technical and support documents](#) showing solar car designs, e.g. [Virtual car](#) to build and race a solar car. By contacting david@solar-active.com one can receive an A4 with live links to download classroom resources.