for teachers that details how the challenge aligns with the current Australian educational curriculum.

Streaking ahead on design

Last year's race saw many variations, from mono hulls to trimarans – even a hull made from plastic soft drink bottles.

The 2006 race day was overcast and windy, making it difficult to keep boats moving and pointed in the right direction.

Adler said this enabled the teams who had done their background research to stand out from the field.

'Of 36 radio-controlled boats, six were capable of completing the course in the conditions. It really made the others think.'

The winners – Sydney's Burwood Girls High – had a switch on the boat's deck to change the configuration of the solar panels for sunny or cloudy conditions.

Penrith City Mayor, Pat Sheehy, said the solar boat challenge was an ideal project for Council to support.

'Council had been looking for an event of international significance and the [Solar Boat] Challenge has the makings to draw some big international competitors as well as hundreds of teams of schools and enthusiasts from around the country.

'The Challenge also closely aligns with the intent of our Sustainable Penrith program by providing an excellent opportunity to enhance our community's awareness of climate change and alternative energies.'

For the 2007 challenge, SEES plans to give away 200 solar model boat kits, 40 piloted boat kits and 50 hydrogen-fuel-cell kits. The piloted boat kit includes a 2.4 metre designed kayak hull with outriggers, an 85-watt safety modified solar panel and a multi-geared 12-volt electric engine.

A new race sponsor, Riviera boat builders, will design and build more than 20 singleperson boats for schools entering the piloted boat race. Riviera has agreed to design and produce a fleet of up to 90 full-sized solar racing catamarans for the piloted section of the race over the next three years.

The piloted event covers craft built for a single pilot, with restrictions on batteries, solar panels, engine capacity and length. Each boat participates in endurance and sprint races, with winners decided on an aggregate of these scores.

The remote-controlled model race is split into primary and secondary school divisions, with boats competing in an endurance race relying exclusively on solar power. In the wire-guided model race, boats compete in a straight sprint.

As well as the racing component, teams are required to demonstrate their understanding of the design, manufacture and racing process by submitting a diary or log of the project. Marks are also awarded for boat presentation and design.

The national finals of the Solar Boat Challenge will be held at Penrith on Saturday 3 November.

More information:

SEES Solar Boat Challenge, www.solarchallenge.com.au

Cressy Primary School Principal Dave Kohler with Sean Robbins, Raymond Geyer, Paige Baker, Kaitlyn Spencer and Brayden Mathews preparing for the solar challenge. Dave Kohler

Local weather station for 'slip slop slap' alert

This spring and summer, a flag at Caulfield Junior College, in Melbourne, Victoria, will be raised every time the UV index is high.

Students from the college are monitoring UV levels at their school as part of the 'UV and me' project, which uses data from the Caulfield South Weather Station – a fully professional weather station set up for the use of children.

Local weather enthusiast and parent, Dan Levin, established the weather station on the roof of his house to allow children to have fun learning about weather and climate.

'It is my personal belief that our kids, who will be the leaders of tomorrow, should become knowledgeable about our weather and climate, so that when they sit around the boardroom tables making important economic decisions, they consider not only the economic bottom line, but also the impacts those decisions will have upon society and the environment at large,' says Levin.

With the help of his children Rachel, 7, and Elliot, 10, Levin collects a range of weather data from the weather station, including UV radiation, rainfall and cloud cover.

Every 15 minutes, UV data is directly fed to the Caulfield Junior College's website, where the readings are monitored by students before each recess or lunch break.

If they observe the UV levels reaching 3 or more, the school raises a flag up the flagpole to signal 'high UV' to students and to warn them to put on their hats and sunglasses before they go outside.

School Principal Tim



Caulfield Junior College presents its 'UV and me' project to former Federal Labor minister, Barry Jones. Caulfield Junior College

Douglas says students have reacted positively to the program and that the 'SunSmart' message is getting reinforced through peer involvement in the project. In fact, SunSmart – The Cancer Council Victoria's skin cancer prevention program – has made Levin and his children SunSmart Champions.

More information: Caulfield South Weather Station, www.elliotswebsite.com/ cws/eec1.php 'UV and me' project, www.theuvandmeproject.com