

# Tasmanian Science Talent Search 2008

## *Planet Earth: Planet of Change*

### Posters

Eligible students – all age groups

**Topic:** Planet Earth: Planet of Change

**Understanding Goal:** Students will understand how the conventions for making a poster can be used to convey a scientific message.

**Closing date:** 16<sup>th</sup> May, 2008

#### Judging Criteria:

1. Scientific concept: relevance and significance
2. Presentation
  - a. Maximum size A2 (A1 is too large for display)
  - b. Must be suitable for wall display (preferably mounted on thicker card)
  - c. Two dimensional only
3. Visual impact – this is usually associated with simplicity. It's message should be able to be understood from 3m distance.
4. Clarity of message – the poster should clearly convey the scientific message
5. A poster is not a scientific chart, project, diagram or pictorial essay  
Please pack posters flat, **NOT** rolled

**\*See website for Judges' Comments 2006 and 2007**

### Creative Writing

Eligible students – all age groups

**Topic:** Planet Earth: Planet of Change

**Understanding Goal:** Students will understand how to use creative writing as a medium to convey a scientific message.

**Closing Date:** 16<sup>th</sup> May, 2008

#### Judging Criteria:

1. Scientific concept: relevance and significance
2. Maximum size – one side of A4 page
3. Creative use of words to convey the message. May also be illustrated

#### Judging:

Entries can be either prose or verse but need to be the students own work. Other resources such as encyclopaedias, the World Wide Web and text books are useful for researching information and students may use this gathered information to inform their writing, but all references must be acknowledged. Where there is evidence of plagiarism the entry will **NOT** be considered.

**\*See website for Judges' Comments 2006 and 2007**

### Photographic Essays

Eligible students – all age groups

**Topic:** Planet Earth: Planet of Change

**Understanding Goal:** Students will understand how to use photography as a medium to convey a scientific message.

**Closing Date:** 18<sup>th</sup> July, 2008

**Information:** A good photographic essay stands alone without written description.

A photographic essay is a set of 6 to 8 photographs, taken by the entrant, which combine to express a scientific concept and the creator's thoughts about the subject. It is an interesting way of observing, recording and studying phenomena which might go unnoticed by the casual observer.

**Presentation:** Entries must be ready for display. Photographs can be in either colour or black and white. Each entry should be accompanied by a separate written description, attached to the back, including details of the camera used, and explaining the creator's thoughts. It is not essential to explain each photograph.

#### Judging Criteria:

1. **Relevance – 50%**
  - To what extent are the individual photographs relevant to the science theme?
  - Is a science concept clearly conveyed through the photographic images?
  - Does the photographic sequence convey a story?
  - Does the accompanying written description support the visual story.
2. **Presentation, photographic skills and techniques – 50%**
  - Overall visual impact of the presentation
  - Clarity of images
  - Digital images are fine but are best printed on glossy paper
  - Layout of the presentation
  - Use of tonal range to provide a focus on the subjects(s)
  - Photos may be commercially processed
  - Maximum size A2
  - Photographic Essays of the incorrect size and not on the theme will not be considered.
  - Please pack posters flat, **NOT** rolled

**\*See website for Judges' Comments 2006 and 2007**

# Technology Challenge

Eligible students – all age groups

**Topic: Design a Thermometer to measure the temperature of water.**

## Learning outcomes:

- Literacy and Numeracy in Science and Technology
- Strategies for Designing and Evaluating
- Scientific experimentation
- Reflection and articulation of ideas and findings
- Also for secondary students, understanding scientific concepts and analysis of findings

**Closing Date: TBA** August 2008

*NB. Watch the TSTS Newsletter for specific details of judging prior to the event.*

## Regional Public Judging

### When and Where:

Regional judging will be held in Hobart, Devonport and Launceston. Venues, dates and times will be announced on both the STAT website and through the TSTS newsletter. Every effort will be made to make sure that those students who have entered are aware of the details for the judging

## The Challenge:

### Conditions:

The purpose of this exercise is to construct a thermometer from simple items, and to calibrate your thermometer using water at different temperatures and to display results in some form of chart or graph.

Construction materials must be principally recycled materials and the final design and all the materials used, must fit in an A4 reflex box.

### On the day:

Use your thermometer to calculate the temperature of containers of water the judges will have on the day.

### Judging Criteria:

1. Accuracy of water temperature measured.
2. Elegance, and thoughtfulness of design (primary students) and originality (secondary students).
3. Your ability to explain how you designed and tested your thermometer at school.
4. Design plan and construction diary
5. Your calibration graphs or charts
6. Also for Secondary students: scientific explanations of how your thermometer works.

## Do NOT send entries to the judges

Schools should hold their own judging of entries. The best 10 entries in each division will then be taken by students to the public judging in their local region. Schools in remote locations may submit their winning entries via video.

### Possible starting ideas:

#### Primary Students:

1. <http://www.weatherwizkids.com/thermometer.htm>
2. [http://www.windows.ucar.edu/tour/link=/teacher\\_resources/therm\\_edu.html](http://www.windows.ucar.edu/tour/link=/teacher_resources/therm_edu.html)

#### Secondary students:

1. <http://www.madsci.org/posts/archives/1998-05/895288936.Eg.r.html>
2. <http://www.solar.unt.edu/thermometermod.doc>
3. <http://hop.concord.org/h1/mess/h1ma4.html>
4. <http://www.globe.gov/tctg/atla-therm.pdf?sectionId=25>

*Please make sure your student's name is on both the written work and the construction, as those which are successful are used as part of the display at the Presentation Day.*