

**EDUCATION COMMITTEE of the
Northern California Chapter - American Vacuum Society**
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SPECIAL AWARDS – SCIENCE FAIRS

Award Name:

Northern California Chapter of the American Vacuum Society,
Science and Vacuum Technology Award

Award Criteria:

To be given to outstanding research projects, particularly those that investigate physical phenomena that may or may not occur at pressures lower than atmosphere, but demonstrate creative thought.

Type and number of awards:

Senior Division (Grades 9-12)

1st place - \$100 to student with certificate, \$100 to teacher/school

2nd place - \$50 to student with certificate, \$50 to teacher/school

3rd place - \$25 to student with certificate, \$25 to teacher/school

Junior Division (Grades 6-8)

The same awards

Sample ideas for science fair projects:

Rate of sound transmission as a low pressure gauge

Reduced boiling points of liquids prevents degradation

Storing food – lower the temperature or produce a better vacuum

Heat transfer – use thicker insulator or better vacuum?

Reduced air resistance and moving object velocity like trains

Shorten raisin/food drying vs. sunshine method

Resource equipment available for science fair projects

The Education Committee has small mechanical vacuum pumps, bell jars & gauges available for short-term loan. This equipment is also used in Middle School/Junior High vacuum experiment demos, as well as annual EYH vacuum programs for 6-12 grade girls.

Information on vacuum equipment/experiments:

www.belljar.net/articles

www.nccavs.org/education

www.avs.org/education