

High School Essay & Poster Competition 2009

1st Place:
\$20,000.00

2nd Place:
\$15,000.00

3rd Place:
\$10,000.00

Categories: Grades 10-13

Each category will have three winners

*****Each student may submit a maximum of two entries, i.e. two (2) essays or two (2) posters from different categories, or one (1) essay and one (1) poster. Students may also attempt one (1) question from either the essay or poster category.*****

Essays:

A. Biology

In response to the global food crisis that looms the Jamaican government is promoting the growth and use of Tubers in the society. Discuss technologies which can be used to enhance the production of this food group.

B. Chemistry

Many people see Chemistry as abstract and distant from the realities of everyday life. Outline some practical applications of Chemistry in everyday life.

C. Energy

In light of the prevailing world energy crisis and the fact that Jamaica's energy bill is in excess of 2 billion US dollars per annum, what alternative forms of energy can Jamaica explore to reduce its dependence on oil? Give specific reasons to support your argument.

D. Environmental Science

How can the use of Green Technology benefit the Jamaican society? In what areas can such technology be applied?

E. Information Technology

English scientists recently created a robot capable of having "human emotions". Explore the possible advantages and disadvantages posed by Artificial Intelligence.

F. Standardization

Standards are integral to economic development. Discuss.

Posters:

A. Tubers - Safeguarding the Nation's Food Security

B. Clean Water for Life

C. Energy Conservation Begins at Home

D. Green Technology for Sustainable Development

E. Robotics Technology for the Future

F. Standards Build Sustainability

Poster Rules

Each student is allowed a maximum of two (2) entries from different categories.

SIZE: 66 cm x 51 cm

MEDIUM: Any of the following:

Water Colours, Pen & Ink, Crayons, Poster Paint, Powder Paint

Posters packaged for mailing should be done according to the following procedure:

Roll posters, place in cardboard tubing, place SRC's address on the outside of the tubing or submit as hand held poster holder.

A declaration of proof of work must be signed and accompany poster (s).

Criteria

Visual Impact & Effectiveness in portrayal of the theme

	-	10	(40%)
Use of Colour	-	7	(28%)
Lettering	-	3	(12%)
Originality	-	5	(20%)

Essay Rules

- Essays should be between 1,500-2,000 words in length.
- Essays should be typewritten, double-spaced on letter-sized paper
- Clear margins (at least 1 inch) should be left on both sides of the text.
- Essays should be identified in the following manner:
 - ⇒ Name of student at top right hand corner of the first sheet
 - ⇒ Below name, student's form/grade
 - ⇒ On next line, name of school followed by school's address
 - ⇒ Date
 - ⇒ Name, signature and contact number of teacher who guided the student
 - ⇒ Chosen category and topic should be placed at centre of the paper and underlined or bolded.
- Each student is allowed a maximum of two (2) entries from different categories.
- A bibliography **must** be included. Please see overleaf for bibliography information.
- A declaration of proof of work must be signed and accompany the essay(s).

Criteria:

• Adequate Coverage of Topic	- 10 Marks	(20%)
• Effective Use of Language	- 10 Marks	(20%)
• Organization and Presentation	- 10 Marks	(20%)
• Accuracy of Information	- 10 Marks	(20%)
• Relevance to Jamaica	- 5 Marks	(10%)
• Bibliography	- 5 Marks	(10%)

Deadline - February 27, 2009

Awards Ceremony : April 2009 (Venue to be announced.)

All entries must be sent to:

The Scientific Research Council

C/o The Science & Technology Education Unit

P.O. Box 350, Hope Gardens

Kingston 6

OR Fax to 977-1840 (essay only)

For further information, please call 927-1771-4



SAMPLE BIBLIOGRAPHICAL ENTRIES/REFERENCES

STUDENTS: Please use these samples as guidelines for your references at the end of your essays

- **A book with a single author.**

Hawthorne, Edward P. The Management of Technology. London: McGraw-Hill, 1978.

- **A book with 2 authors.**

Minor, Theodore E. and Elmer H. Marth. Staphylococci and their Significance in Foods. Amsterdam: Elsevier, 1976.

- **A book with 3 authors.**

Cusumano, James A., Ralph A. Dalla Betta and Ricardo B. Levy. Catalysis in Coal Conversion. New York: Academic Press, 1978.

- **A book with more than 3 authors.**

Holland, F.A., et al. Heat Transfer. London: Heinemann Educational Books, c 1970.

- **A book with a corporate author.**

UNESCO. Energy Scholarships: Grant Possibilities Offered by International, National and Regional Organizations. Paris: UNESCO, 1985.

- **Articles in reference books.**

"Energy" McGraw-Hill Encyclopedia of Science and Technology. 1960 Ed.

- **A book without place of publication, publisher, date of publication.**

The abbreviations given below can be used.

n.p. No place of publication given

n.p. no publisher given

n.d. no date of publication given

E.g. Darrow, Ken. Appropriate Technology Source book. n.p: n.p, n.d.

- **A work by an editor.**

Shepherd, H.R. Ed. Aerosols: Science and Technology. New York: Interscience Publishers, 1961.

- **The published proceedings of a conference, workshop, etc.**

Photovoltaic Solar Energy. Proceedings of the International Conference held in London, U.K. 15-19 April 1985. Dordrecht, Holland: D.Reidel Pub. Co., 1985.

- **No author given.**

A new Prosperity: Building a Sustainable Energy Future. Andover, Mass.: Brick House Publishing, 1981.

- **Edition other than the first edition.**

Moncrieffe, R. W. ed. Man-made Fibres 6th ed. London: Newmanes-Butterworths, 1975.

- **Article in a journal**

Mootoo, A. "Effect of Post-harvest Calcium Chloride Dips on Ripening Changes in 'Julie' Mangoes." Tropical Science, 31, no.3 (1991), 243-248.

- **Article from a daily newspaper.**

Wade, Barry. "Energy and National Conservation Strategy". The Daily Gleaner, 7 May 1990, p.1.

- **Article from the internet (Stand-alone document, no author identified, no date.)**

GVU's 8th WWW User Survey. (n.d). Retrieved August 8, 2000 from http://www.cc.gatech.edu/gvu/user_sureys/survey-1997-10/