

# Science, Engineering & Technology - Department H

## Division 771 –Science

Science projects **MUST** include support information.

- This information can be in poster or report form. Poster form should be no larger than 36" high x 48" wide". Reports should be entered in a binder or other protective cover.
- Reports should be written using the scientific method whenever possible (Background, the Question or hypothesis, what you plan to do and what you did, Method used and observations, Results: what you learned. All reports should be computer generated and enclosed in a clear plastic cover. The reports should be attached securely to the display.
- The name of the exhibitor should appear separately on the back of each board, poster or article and on the front cover of the notebooks.

**\* The following 900 number classes are not eligible for State Fair consideration\***

### **CLASS 901 ANY SELF DETERMINED SCIENCE PROJECT**

Suggestions for subjects are:

#### **PHYSICAL SCIENCES**

Includes, but is not limited to, all branches of electrical engineering, chemistry and physics, including inorganic chemistry, organic chemistry, biochemistry (may overlap with molecular biology depending on main focus), mechanics, optics, aerodynamics, robotics and electronics.

#### **BIOLOGICAL SCIENCES**

Includes, but is not limited to, botany, zoology, ecology, cell biology, microbiology, anatomy, physiology, behavioral sciences, genetics, and molecular biology.

#### **MATHEMATICS**

Includes, but is not limited to, projects in any mathematical field such as statistics, probability, game theory, or computer science.

#### **CHEMISTRY**

Includes, but not limited to, kitchen chemistry projects, purchased chemistry kits, and internet generated projects or ideas.

#### **EARTH SCIENCES**

**Includes, but is not limited to,** projects in astronomy, geology, meteorology, physical geography, soil science, and water quality.

### **ROCK OR MINERAL COLLECTION**

**Rules:** Display must be samples of rocks or minerals collected by the 4-H exhibitor. Items being displayed need to be glued to a poster board, cardboard box or wooden display case with a clear top. Display case, box or poster board's maximum dimensions: 36 inches by 48 inches. **Minimum dimensions for rocks and mineral collections only: 12 inches by 12 inches**, nothing smaller than this please. All rocks or mineral must be labeled as follows: rock or mineral name, where the rock or mineral was found, name of

the collector and if your sample is a rock you must identify the type of rock it is, igneous - metamorphic – sedimentary.

**CLASS 902 NOVICE ROCK OR MINERAL COLLECTION**

**Rock collections** must have a minimum of 9 rocks. 3 of the rocks in this collection must come from igneous rock types and 3 of the rocks must come from metamorphic rock types and 3 must come from sedimentary rock types.

**Mineral collections** must have a minimum of 9 different minerals in the display.

**CLASS 903 SECOND YEAR ROCK OR MINERAL COLLECTION**

This collection need to conform to the guidelines as established in the collection rules. However, the number of specimens collected will need to conform to the following: **Rock collections** will need to total at least 20 specimens. More than 20 specimens are acceptable. **Mineral collections** will need to total at least 20 specimens. More than 20 specimens are acceptable

**CLASS 904 THIRD YEAR AND 'BEYOND' ROCK OR MINERAL COLLECTION**

This collection need to conform to the guidelines as established in the collection rules. However, the number of specimens collected will need to conform to the following: **Rock collections** will need to total at least 30 specimens. More than 30 specimens are acceptable. **Mineral collections** will need to total at least 30 specimens. More than 30 specimens are acceptable.