

# STUDENT PROJECT AND SAFETY CHECKLIST

## The Illinois Junior Academy of Science

### Project Checklist

#### Abstract

- \_\_\_\_\_ First page of paper.
- \_\_\_\_\_ 3 paragraphs with proper headings: Purpose, Procedure, and Conclusion.
- \_\_\_\_\_ Typed single-spaced.
- \_\_\_\_\_ 200 words or less.

#### Safety Sheet

- \_\_\_\_\_ Second page of paper.
- \_\_\_\_\_ Hazards listed, precautions described.
- \_\_\_\_\_ Signed by sponsor.

#### Endorsement(s), if applicable

- \_\_\_\_\_ Third page of paper; subsequent pages, as needed.
- \_\_\_\_\_ Signed by student and sponsor; proper documentation is attached, if necessary.

#### Title Page

- \_\_\_\_\_ Clear and concise.

#### Table of Contents

- \_\_\_\_\_ Pagination is accurate.

#### Acknowledgments

- \_\_\_\_\_ Credit is given to those who have helped.

#### Purpose and Hypothesis

- \_\_\_\_\_ States precisely what the investigation was attempting to discover.
- \_\_\_\_\_ States a definite question or problem.
- \_\_\_\_\_ Hypothesis is present.

#### Review of the Literature

- \_\_\_\_\_ Use of 3rd person is evident.
- \_\_\_\_\_ Logical and/or related grouping of information.
- \_\_\_\_\_ Accuracy in calculations, spelling, grammar, and quotations.
- \_\_\_\_\_ Typed double-spaced, one inch margins, single-sided.
- \_\_\_\_\_ Parenthetically cited.

#### Materials and Methods of Procedure

- \_\_\_\_\_ Apparatus and materials are listed.
- \_\_\_\_\_ Drawings and photographs are present if they enhance and clarify the apparatus.
- \_\_\_\_\_ Step-by-step, chronological procedures are present.
- \_\_\_\_\_ Number of test groups is adequate and the number of trials within each test group is adequate.
- \_\_\_\_\_ The control of variables is evident.

#### Results

- \_\_\_\_\_ Data is organized into tables or charts with accompanying graphs, if appropriate.
- \_\_\_\_\_ Data is quantitative and correct units of measurement (metric) are used.
- \_\_\_\_\_ Data is clear and accurate.
- \_\_\_\_\_ The effect of experimental error was estimated and considered.

### Conclusions

- \_\_\_\_\_ Evaluation and interpretation of data is present.
- \_\_\_\_\_ Refers back to purpose and hypothesis; answers the original question.
- \_\_\_\_\_ Is valid and limited to the results of the experiment.

### Reference List

- \_\_\_\_\_ References come from a variety of sources.
- \_\_\_\_\_ References are current.
- \_\_\_\_\_ Reference list is alphabetical.
- \_\_\_\_\_ Proper format is used for all references.

### Experimental Safety

If experimenting with humans the following procedures were followed:

- \_\_\_\_\_ No cultures were obtained from humans, except those from supply houses.
- \_\_\_\_\_ Quantities of food and non-alcoholic beverages were limited to normal serving sizes, and consumed in a reasonable amount of time.
- \_\_\_\_\_ Blood was not drawn exclusively for the science project.
- \_\_\_\_\_ Projects involving exercise have a valid normal physical examination on file and exercise was not carried to the extreme.

If experimenting with a non-human vertebrate the following procedures were followed:

- \_\_\_\_\_ No cultures were obtained from warm-blooded animals.
- \_\_\_\_\_ No intrusive techniques were used.
- \_\_\_\_\_ No extreme changes were made in the organism's normal environment.
- \_\_\_\_\_ Food or water was not withheld for a period that would cause undue stress. (based on the animal's metabolic rate)
- \_\_\_\_\_ Animals were properly cared for with adequate ventilation, food, and water.
- \_\_\_\_\_ Chicken or other bird embryo treatment was discontinued at or before 96 hours from fertilization.

### Exhibition Safety

- \_\_\_\_\_ Project fits on tabletop within 76 X 122 cm limitations allowed; is no taller than 152 cm (5 ft).
- \_\_\_\_\_ No Glassware is displayed.,
- \_\_\_\_\_ Chemicals are not displayed. Photographs should be substituted.
- \_\_\_\_\_ Hazardous materials: explosive, flammable, corrosive, or poisonous materials, rockets, compressed or aerosol cans are not displayed.
- \_\_\_\_\_ Fire hazards: no open flames, torches, burners, or electric hotplates are displayed.
- \_\_\_\_\_ Radiation: no laser, UV-light, X-rays, or other radioactive materials are displayed.
- \_\_\_\_\_ Packing materials are not on or under the table.
- \_\_\_\_\_ No table drapes or other coverings are present.
- \_\_\_\_\_ No vertebrates, invertebrates, or animal tissues are displayed.
- \_\_\_\_\_ No hypodermic needles or syringes are displayed.
- \_\_\_\_\_ No cultures of any kind are displayed.
- \_\_\_\_\_ Electrical and/or mechanical equipment is (are) shielded, durable, enclosed, insulated, and quiet.

### Miscellaneous

- \_\_\_\_\_ Three copies of the complete research paper for Project Session participants.
- \_\_\_\_\_ Display board - Reminder: no chairs or table covers are allowed.
- \_\_\_\_\_ Entry Tag Ribbon
- \_\_\_\_\_ A copy of the abstract, safety sheet, and endorsements (if applicable) are displayed on the front of the display board.
- \_\_\_\_\_ Electrical extension cord, if needed for your project, and the project has already been designated as needing electricity.
- \_\_\_\_\_ Friday night banquet tickets - see sponsor for information.