

Name \_\_\_\_\_ Grade \_\_\_\_\_

Check list for student projects and research papers:

- Think about your hobbies, interests, what equipment you can access or skills you have, what are “hot topics” in the news, and select one or more choices to research for your project
- Review the Rules and Forms section of the website [www.tcrsf.org](http://www.tcrsf.org)
- Choose a topic and read and take notes.
- Have parent and teacher or mentor approve your project idea
- Fill out forms 1 (your name & title), 1A (parts 1, 2, 3, 6, 7, & 8), and 1B (part 1a & 1b) Sign and date before the experiment start date on Form 1A.
- Write complete research plan:
  - A. Question or problem being addressed
  - B. Hypothesis (or engineering objective)
  - C. Detailed procedure
  - D. Bibliography (at least 5 major sources)
- Have research plan reviewed by teacher/mentor and by the IRB or SRC (AND email plan as a DOC or PDF to [src@tcrsf.org](mailto:src@tcrsf.org));
- Take notes in your lab notebook/project journal; write procedures, recipes, observations and thoughts and ideas into your notebook. Date and initial/sign each entry/page. Begin experiment(s) after it is approved by teacher/mentor and school IRB or TCRSF SRC.
- Take photos of experiment as you do experiment (equipment, results, work in progress, collection site, etc.)
- Record all observations, results and numeric data in your lab notebook
- Analyze results; build tables, charts, graphs. What statistics are appropriate?
- Decide what needs to be repeated or modify experiment and run again.
- Write up Discussion of Results and Conclusions (relate back to hypothesis or design objective)
- Write Abstract – maximum of 250 words (not counting project title or your name)
- Put together your research paper
- Print sections in large type for your exhibit boards, print photos and graphs and charts for your boards
- Assemble your exhibit (display)
- Practice talking about your project by telling others why you are interested in this project and what you did for your project. What did you find out? Did your results support your hypothesis or not? (Your results will not prove your hypothesis – they will support it or not support it or be inconclusive.)
- Look at the Judging Score Sheets and suggested questions for judges to ask so you know what basis you are being graded on and what questions you might expect. Add sections to your display if needed to explain Future Work you would recommend – or to state the Practical Application of the project.
- Register before the fair deadline for project and / or research paper (see [www.tcrsf.org](http://www.tcrsf.org) then Students tab and Register)
- Finish your display and paper (continue to experiment or replicate experiment to add to your project, if you'd like)
- Compete at the regional fair.