Research Project Tools





EXPLORE

Target Date:

Explore a variety of resources for meaningful project ideas: research books, periodicals, Internet, community concerns, local environmental issues, look in your backyard, and garage. Explore your personal interests. *The more interested you are in your subject, the more meaningful the subject matter, the more likely you are to succeed.*

Individual or Team Project?



You may choose to work as an individual or member of a team of 2 or 3 students. Note that judges have a much higher level of expectation for team projects. Get your parents' and advisor's permission before choosing a team project.



Target Date:

START

Target Date:

Read, research, and search for ideas. Outline the **PROJECT PLAN**. Write an **INTRODUCTION**: Write a statement of purpose. Write and investigative question. Write a hypothesis that provides a basis for further investigation.

Organize



The key to success is good organization. Use a calendar to organize your time. Work backward from the due date(s). Use a checklist to keep track of project accomplishments. Log all school projects, extracurricular activities and personal commitments on your project calendar.



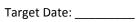
Target Date:

Design Procedures

Target Date:

List **MATERIALS** and **METHODS/PROCESSES** used in your experiment. Identify and control your variables. Repeat the experiment several times to validate your results.

Experiment





Record all results and observations in a LABORATORY/PROJECT NOTEBOOK. Design charts and graphs that help you analyze and display your data.

Reach a Conclusion

Target Date:

Write an explanation of your results. Relate conclusions to your hypothesis. Write a conclusion statement and discuss whether or not you met your project objectives.

Write a Report



Write a project report. THESE REPORTS SHOULD BE WORD PROCESSED, NOT HANDWRITTEN.



Target Date:

Create a Display

Target Date:

Design a 3-panel exhibit board. Outline your report and display your results (see the Research Project Board handout). Design a display or model of the experiment.

Prepare your Presentation



PREPARE YOUR PROJECT PRESENTATION. Be prepared to answer a variety of questions and discuss the scientific concepts that support the study. Students should dress for a formal interview. The dress code for competitions is business or business casual.

Target Date:

FINISH

Target Date:

PARTICIPATE IN YOUR LOCAL SCHOOL COMPETITION. If you qualify to move on to Regional and/or State competition, follow the **ONLINE ENTRY** procedures available on the event websites.