

INLAND SCIENCE AND ENGINEERING FAIR

Project Do's

P	Develop and display a science project of <u>your</u> choice. Investigate a question or problem about a science related topic that <i>interests you!</i>
R	You can <i>begin your science project at any time during the year</i> before the school, regional or state fair in which you are registering your project. A previously investigated topic may continue under investigation, but data previously displayed must be treated as "research". So you must collect new data, to be used in your new display and new conclusions drawn based on this data must be included in the new display.
O	
J	If you want an opportunity to enter your project into a regional or state science fair your project (ie. experiment, demonstration, display, collection and literature search) <i>must be able to extract or "dig up" new information</i> , data, not previously known to you, the researcher.
E	Make sure you use the <i>"scientific method"</i> when conducting your investigation(s). (Required for entry in to the regional or state science fair)
C	Use a <i>notebook "journal"</i> to create a <i>written record</i> of your entire "science project" journey from start to finish. Use this journal to describe every "step" you took so someone after you could "reproduce" your findings. (Required for entry in to the school, regional or state science fair)
T	<i>Develop a problem statement or question</i> in which you <i>clearly state</i> the issue to be researched. Make sure you can develop a <i>testable hypothesis</i> (supporting or null) for the problem statement or question you develop. A testable hypothesis is an "If..."then".... statement that involves only the change of one variable.
B	<i>Conduct "library" or "on-line" research</i> to help you understand more about the main topics/issues found in your problem statement or question.
A	<i>Develop a testable hypothesis</i> that <i>clearly states</i> a plausible solution (supporting or null) for the problem statement or question you developed.
S	Your <i>research plan</i> or <i>experimental procedure</i> needs to consist of two "set-up": a procedure for your "control group" set-up and a procedure for your experimental, test or "variable group" set-up.
I	<i>Take photographs or draw picture of your experimental process</i> while doing your experiment. Try not to include your face or the faces of other.
C	<i>Repeat your experiment</i> as many times as possible so you can collect more data. More data that either supports or rejects your hypothesis strengthens the findings you summarize in your conclusion.
S	Record all data collected during the experiment in your <i>notebook "journal"</i> . Develop and use a <i>"data table"</i> to organize your data before you conduct the experiment and collect data.

Graph or display your data in such a way as to support or reject your hypothesis. Use these "data displays" help draw your conclusions.

When arriving at a conclusion, at the end of your project, make sure you

- State if the data you collected supports, rejects **your hypothesis**.
- State the **importance of your work**.
- Suggest **pursuing other related questions or experiments** that is different than the one you just finished.

All experimental work must be done by the student. Parents (adults) can supply materials, advice, and consultation.