Research

1. Establish an area of interest, use magazines and newspapers to take notes (note cards using a template) and document sources of information also using a template. Decide on an area of general interest such as plants, light, structures, smoking, math, etc. From this general topic consider the action that is interesting; plants and their growth, light and its formation, smoking causing lung cell growth, and music's affect on learning.

2. Narrow the topic by researching using textbooks and general library sources to take notes (note cards). Use the table of contents and the index to locate areas of interest. Look at headings and subheadings to continue the search. This research will lead to a more specific topic and what materials are needed to conduct an experiment.

General topic	plants
Action	growth
Specific topic	roots, stomates, fertilizer
Action	stomata growth

3. Advanced students will continue to research scientific journals outside of school using community or college libraries. A template should be used to help students identify specific information needed for the research. The focus of this research is to locate potential dependent and independent variables.

   Plants Growth Stomata Size of Stomata Different leaf ages

   Independent Variable-Different leaf ages
   Dependent Variable-Size of Stomata and amount of water produced

4. The next research will help define the specific procedures needed to conduct the experiment and what methods will be used to analyze data. Laboratory manuals and handbooks may be helpful. It is important to monitor materials and procedures to make sure of safety and readily available materials.

   Other sources of expertise are found in the community: agencies, businesses, and organizations. For specific plant research a local greenhouse, master gardener program, or 4H club might provide resources. Students, with assistance, should now be ready to identify the materials and procedures needed for experimentation.

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