

## Importance of the Problem - Solving Model

Over the years, countless schools, museums, and commercial exhibit halls have served in one way or another as the settings for wonderful and sometimes gigantic science fairs. Enthusiastic exhibitors with fantastic and diverse science projects have traditionally attracted people of all ages and from all walks of life.

The displays at these gatherings have usually included oral and written presentations that make use of a range of equipment from the simplest measuring devices to the most complex machines, computers, and electronics. Exhibits have ranged from simple projects with titles like "Paper Airplane Design" or "Electricity from Potatoes" to complex projects with titles like "Earthquake Prediction" or "Mission on Mars."

No matter how simple or complex, all of these projects and displays have one purpose in common—to answer a question or solve a problem.

Sometimes these questions are asked by one person, and sometimes they are asked by whole cities or even nations. Why does it rain? How can we predict rain? How can we make it rain? From a child wondering about causes to a nation wanting to improve its crops for food—everyone wants to solve problems. It is human to desire to know and learn things—to solve problems.

Because this has always been true, over time we have developed a model—a regular series of steps—for solving problems. It is also the model we use for almost all projects in science fairs. In fact, it is really a good model to use for solving many problems in life. After all, when you think about it, life itself is really a kind of science fair—a search for the answers to questions. The components, or individual steps, for this problem-solving model will be described here for more....

### Components of the Problem - Solving Model

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|--------------------|----------------------------|---------------------------------------|
| <b>1.Problem</b>   | <b>2.Topic Information</b> | <b>3.Hypothesis</b>                   |
| <b>4.Materials</b> | <b>5.Variables</b>         | <b>6.Controls</b>                     |
| <b>7.Procedure</b> | <b>8.Data Collection</b>   | <b>9.Results</b> <b>10.Conclusion</b> |

Problems Identified and solutions suggested as a science fair projects