The Scientific Method
Enjoying simple science projects and experiments is a great way for kids to learn about science in a fun, interactive way. When you want to take things a step further and develop an idea into a full science fair project there are a number of things to keep in mind that will help ensure your project follows a process called the Scientific Method. The Scientific Method helps scientists create credible investigations that feature well supported evidence. Check out the following steps that will help you create great science fair projects of your own.

Seven Steps of The Scientific Method with a simple example
(Note: 'raspberries' experiment is overly simplified to explain the point)
Step 1: The Question
Your science fair project starts with a question. This might be based on an observation you have made or a particular topic that interests you. Think what you hope to discover during your investigation, what question would you like to answer? Your question needs to be about something you can measure and will typically start with words such as what, when, where, how or why.

Example: Why did the raspberries did not grow well this year?

Step 2: Background Research
Talk to people who know about the subject, use resources such as books and the Internet to perform background research on your question. Gathering information now will help prepare you for the next step in the Scientific Method.

Example: We did not get much rain this year.

Step 3: Hypothesis
Using your background research and current knowledge, make an educated guess that answers your question. Your hypothesis should be a simple statement that expresses what you think will happen.

Example: The raspberries did not grow well because we did not get much rain this year.

Step 4: Experiment
Create a step by step procedure and conduct an experiment that tests your hypothesis. The experiment should be a fair test that changes only one variable at a time while keeping everything else the same. Repeat the experiment a number of times to ensure your original results weren't an accident.
Example: Raspberry plants are placed in moderately lit areas all receiving the same amount of light each day (amount of water received by the plant is the only variable). Each plant will receive different amount of water. The size of the berries will be recorded daily once the plants begin to produce berries.

Step 5: Data and Observations
Collect data and record the progress of your experiment. Document your results with detailed measurements, descriptions and observations in the form of notes, journal entries, photos, charts and graphs.
Example: The raspberry plants receiving 1 cup of water daily grew to 1/2 " in diameter and those receiving two cups of water grew to 3/4 " in diameter.

Step 6: Conclusions
Analyze the data you collected and summarize your results in written form. Use your analysis to answer your original question, do the results of your experiment support or oppose your hypothesis?
Example: The raspberry plants receiving the most water grew the biggest. Therefore, the hypothesis is supported that this year's raspberries did not get enough rain.

Step 7: Communication
Present your findings on a trifold display board for the science fair competition.
(See the link on how to organize your trifold display board)