Parent's Guide to Science Projects

Information on the Scientific Method

Science projects should follow the six-step scientific method. These steps are shown on the chart below. A comprehensive Science Buddies Project Guide (www.sciencebuddies.org) provides direction on all of the steps.

Time Management

See your child's Student Science Project Schedule for all of the key due dates. Help your child meet these dates by getting out your family calendar and marking the interim due dates. Block out times for trips to the library and other work time. Look for any scheduling conflicts, such as vacations, and discuss issues with the teacher.

How to Help

As your child works on his or her project, he or she will likely face stumbling blocks. To help, ask questions to help your child figure things out; don't just provide the answers. Open-ended questions, such as, "What else could you try to solve this?" or "What is stopping you from going on to the next step?" are best (Fredericks & Asimov, 2001, p.xiii). Sometimes just talking it out can help children get unstuck. If not, ask the teacher for help. Respect your child's independence in learning by helping at the right level.

Helping at the Right Level at Every Step

Project Step	Helping at the right level:	Going too far:
Ask a question.	• Discussing with your child whether a project idea seems practical	• Picking an idea and project for your child: A topic not of interest will turn into a boring project.
Do background research.	• Taking your child to the library • Helping your child think of keywords for Internet searches	• Doing an Internet search and printing out articles
Construct a hypothesis.	• Asking how the hypothesis relates to an experiment the child can do	• Writing the hypothesis yourself
Test the hypothesis by doing an experiment.	• Assisting in finding materials • Monitoring safety (you should always observe any steps involving heat or electricity)	• Writing the experimental procedure • Doing the experiment, except for potentially unsafe steps • Telling your child step-by-step what to do
Analyze data and draw a conclusion.	• Asking how your child will record the data in a data table • Reminding your child to tie the data back to the hypothesis and draw a conclusion	• Creating a spreadsheet and making the graphs yourself, even if your child helps type in values • Announcing the conclusion yourself
Communicate your results.	• If a presentation is assigned, acting as the audience • If a display board is assigned, helping to bring it to school	• Writing any of the text on the display board • Determining the color scheme and other graphic elements