



# Helping at the Right Level

You don't have to be an expert in your student's subject matter in order to lend a hand with the project. Your guidance and advice can help move the process along at any stage — from choosing a topic, to doing research, to rehearsing the presentation.

It can be challenging as a parent to find the balance between being involved and supportive of a child's project, and helping too much. When it comes to science fairs, letting your child explore, observe, make mistakes, ask questions — and seek the answers — is at the heart of the process. Here are a few guidelines on appropriate parent involvement at each phase of a science fair project:

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 science project for your child; topic that isn't of interest to him or her 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	Ask 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 potential 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 bring it to school	Writing any of the text on the display board Determining the color scheme and other graphic elements

\*portions of the content on this page taken from [sciencebuddies.org](http://sciencebuddies.org)



# Time Management

Good presentations don't happen overnight. Well, okay, there have probably a few instances where students have put their whole presentation together the night before it was due — but let's try to avoid that scenario if at all possible! Planning, researching and preparing a presentation is a process that typically takes several weeks. Getting your student to think of the project as a series of steps — each of which will take a number of days to complete — is the key to avoiding procrastination and keeping the process manageable.

For science fair projects, you can use this checklist as a starting point for developing a plan to keep the project on track:

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| _____ 1. <b>Collect fair data &amp; register for fair</b>      | _____ 11. <b>2nd meeting with mentor</b>             |
| _____ 2. <b>Develop personal interest list</b>                 | _____ 12. <b>Create hypothesis</b>                   |
| _____ 3. <b>Locate books and articles;<br/>research topics</b> | _____ 13. <b>2nd review by parents &amp; teacher</b> |
| _____ 4. <b>Select general topic</b>                           | _____ 14. <b>Design experiment/test</b>              |
| _____ 5. <b>1st review by teacher and parents</b>              | _____ 15. <b>Write procedure list</b>                |
| _____ 6. <b>Secure and meet with mentor</b>                    | _____ 16. <b>Write materials list</b>                |
| _____ 7. <b>Draft of problem statement</b>                     | _____ 17. <b>3rd meeting with mentor</b>             |
| _____ 8. <b>Mentor review of statement</b>                     | _____ 18. <b>Procure materials</b>                   |
| _____ 9. <b>Complete background research</b>                   | _____ 19. <b>Experimental trials</b>                 |
| _____ 10. <b>Write bibliography</b>                            | _____ 20. <b>Lab log completed</b>                   |
|  | _____ 21. <b>4th meeting with mentor</b>             |

## Creating a Workspace

Since a project is going to take shape over an extended time, it's important to figure out a dedicated workspace so that your student doesn't have to repeatedly set up and tear down the presentation materials. When choosing a location, look for a space where the work won't be disturbed by pets, siblings or normal family activities.

To find even more helpful guides and resources, visit:

<http://www.sciencebuddies.org>

<http://school.discoveryeducation.com/sciencefaircentral>

## Overcoming Roadblocks

When the going gets tough, some students will be tempted to abandon their projects and start over with a new topic. In most cases, a little guidance from a parent or teacher — such as suggesting a new research source, or figuring out a different way to present findings — is all it takes to get things moving again.

Science fair projects can be especially challenging, because there's always the possibility that the project "doesn't work" — meaning the student discovers that the hypothesis is false. This is completely normal, and does not mean that the project has failed in any way. Proving what doesn't work is just as important as proving what does. The methods used, and the data collected, are just as valid in the eyes of the judges.