

Parents' Guide to Science Fair

Information on the Scientific Method

Science projects should follow the six-step scientific method: Purpose, Research, Hypothesis, Experiment, Analysis, Conclusion, These steps are shown on the chart below.

Time Management

See your child's Science Fair Timeline 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 work time. Look and plan ahead for any scheduling conflicts, such as vacations and other activities, and begin to plan around those to allow your child an appropriate amount of time for to work on his/her project.

How to Help

As your child works on his/her project, he/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. 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:
Purpose <ul style="list-style-type: none"> Ask a question State the problem 	<ul style="list-style-type: none"> Discussing with your child whether a project idea seems practical/testable 	<ul style="list-style-type: none"> Picking an idea and project for your child <p><i>A topic not of interest will turn into a boring and challenging project</i></p>
Research and Research Paper <ul style="list-style-type: none"> Provide the information to understand why their experiment turns out the way it does 	<ul style="list-style-type: none"> Taking your child to the library Helping your child think of keywords for Internet searches Offering structural and grammatical advice and tips 	<ul style="list-style-type: none"> Doing an Internet search and conducting research for your child Writing the research paper for your child Editing and making corrections for your child
Hypothesis <ul style="list-style-type: none"> Predict what will happen during the experiment Identifying variables and controls 	<ul style="list-style-type: none"> Asking how the hypothesis relates to an experiment the child can do 	<ul style="list-style-type: none"> Writing the hypothesis yourself
Experiment <ul style="list-style-type: none"> Test the hypothesis Come up with a list of materials and procedures 	<ul style="list-style-type: none"> Assisting in finding materials Monitoring safety (you should always observe any steps involving heat or electricity) 	<ul style="list-style-type: none"> Writing the experimental procedure Doing the experiment, except for potentially unsafe steps Telling your child step-by-step what to do
Analysis <ul style="list-style-type: none"> Analyze data and results Create graphs and visuals 	<ul style="list-style-type: none"> Asking how your child will record the data in a data table Reminding your child to tie the data back to the hypothesis 	<ul style="list-style-type: none"> Creating a spreadsheet and making the graphs yourself, even if your child helps type in values Collecting and analyzing the data for your child
Conclusion <ul style="list-style-type: none"> Describe what the results mean Decide if hypothesis was correct Share and communicate results 	<ul style="list-style-type: none"> Asking your child how the results answer the question Helping to bring the display board to school Act as an audience 	<ul style="list-style-type: none"> Announcing the conclusion for your child Writing any of the text on the display board Determining the color scheme and other graphic elements

