How to do a science fair project in 5 easy steps!

There is a great set of short videos at
https://www.jpl.nasa.gov/edu/learn/activities/science-fair-project/ We highly recommend you
watch them – they are quite short and give some strategy on how to do fantastic science fair
projects.

1. Get your idea and do some research

Look at the world around you and ask questions about what you see. For example, you might
see a car or an airplane and ask how machines work. Or you might be curious about plants
or insects.

You can also get some ideas from sites like sciencebuddies.org, which has a wizard to guide
you to grade level appropriate projects and questions.

Mark Rober (https://www.youtube.com/c/MarkRober) has some really cool videos that are fun
to watch and are chock full of science fair project ideas.

Read and research online or in books about your topic.

2. Ask a testable question

Develop your topic into a question you can test. Your question should follow the format, "How
does [input] affect [output]?" For example, how does the amount of sunlight affect plant
growth? How does wheel diameter affect car speed? How does wing shape affect how far
paper airplanes fly? How does air pressure affect how far you can throw a football? Try to
pick things that you can measure.

3. Design and conduct your experiment

Design your experiment to answer your testable question (hypothesis). Remember to change
only one variable, have appropriate controls, and to do your experiment multiple times. Keep
track of the results in a notebook.

4. Examine your results

Look for trends in your results and draw conclusions from those trends. Did your results
answer your question? Are there factors you did not consider? If you're designing
something, what improvements could you make?

5. Present your results

Create a poster and/or model to communicate your results. There are lots of details at
https://www.wcpss.net/Page/50233 on what the posters should include, but they should
include details of your research, your testable question (hypothesis), your results and what
conclusions you can draw from the data.