

Week 22: Science Fair Projects!

Supercharged Science is holding a Science Fair and you are invited to participate! We are going to hold one in the Fall, and another in the Spring, so if your science fair project involves an experiment that requires more time, (chemical reactions or biological processes that need longer than a month), save it for a future date and pick one you can do this month.

The point of doing a science fair project is to learn how to ask scientific questions, design experiments to get those questions answered, and stay curious and excited about the world we live in!

There are three different levels of the Science Fair that you may enter in:

QUARK, STELLAR, and GALACTIC

QUARK: If you've never done a science fair project before, this is a great place to start. You can focus on the heart of the project without getting bogged down with structure or details.

For the QUARK LEVEL, here is what we are looking for:

- Ask a question
- Design an experiment
- Take data
- Reach a conclusion

You will be turning in a single page that includes your data table with conclusion and a couple of experiment images.

Catapult Due Sunday 9/16/2020

Items	Ken's catapult	Kaya's catapult
1. pingpong ball	50 in	23 1/2 in
2. lego brick	40 in	21 3/4 in
3. enough drops	15 1/2 in	12 in
4. eraser	9 in	6 in
5. duplo people	8 1/2 in	4 in
6. ball bearing	23 1/2 in	10 in

The m&m got eaten before they got measured.

Result: The ping pong ball went the farthest.



Supercharged Science Live Class Worksheet

STELLAR: If you're ready to move up and learn how to communicate your great ideas, this is the level for you. You can focus on doing real science, and also add on communication to your project as well.

For the STELLAR LEVEL, here is what we are looking for:

- Ask a question
- Make a hypothesis
- Design experiment
- Collect data
- Analyze results
- Conclusion
- Recommendations

For the STELLAR LEVEL, you will be following the 7-step report as outlined in guidebook either written or video presentation.

[illegible]

For the **GALACTIC LEVEL**, this is the full-blown science fair project that you would be entering in science fair competitions. While it's a full-scale science fair project, you don't have to worry about all the details because I've actually done all of the work for you. There's a complete guidebook that you will be following, and you will be turning in the following:

- project board
- video oral presentation
- written report as outlined in guidebook



Title of Project The Impact of Thruster Angle on R.O.V. Speed By: [Name] Date: [Date]	Table of Contents Introduction Hypothesis Materials Procedure Results Conclusion Bibliography	Abstract This project was designed to determine the effect of thruster angle on the speed of a remote-controlled vehicle (R.O.V.). The hypothesis was that a 45-degree angle would result in the fastest speed. The results showed that a 45-degree angle indeed resulted in the fastest speed.	Introduction/Research The purpose of this project is to determine the effect of thruster angle on the speed of a remote-controlled vehicle (R.O.V.). The research question is: What is the effect of thruster angle on the speed of a R.O.V.?
Purpose The purpose of this project is to determine the effect of thruster angle on the speed of a remote-controlled vehicle (R.O.V.).	Hypothesis The hypothesis is that a 45-degree angle will result in the fastest speed.	Materials The materials used in this project are: a remote-controlled vehicle (R.O.V.), a protractor, a stopwatch, and a ruler.	Procedure The procedure for this project is as follows: 1. Set up the R.O.V. on a flat surface. 2. Measure the distance from the R.O.V. to the wall. 3. Release the R.O.V. and time how long it takes to reach the wall. 4. Repeat the experiment for each angle (15, 30, 45, 60, 75, 90 degrees).
Results The results of the experiment are as follows: [Table with 2 columns: Thruster Angle, Time to Wall]	Conclusion The conclusion of the experiment is that a 45-degree angle resulted in the fastest speed.	Bibliography The following sources were used in this project: [List of sources]	

Ready to get started?

Remember, the whole point of doing these is to give you practical experience in communicating your great ideas with others in a form that really gets your point across effectively. In the future, you'll be doing parts of a science fair project on the job whether you are in engineering design, manufacturing, marketing, sales, or commination. So why not have fun doing it by doing a science fair project?

Let's get started!

[Be sure to download your project guidebook FIRST.](#)

ALL Science Fair Projects are due: March 31, 2024