

RK Finn Ryan Road Science Night

April 13, 2023 6pm

All grades are welcome! Pick up a **free tri-fold poster board in the office** during school hours, or contact ryanroadpto@gmail.com with any questions.

Science night will be held at Ryan Road in the **Cafeteria at 6pm**. Depending on how much time you'll want to set up your presentation, students should arrive between 5:30 and 6pm. Trifold poster boards are available for everyone from the Main Office, and students can include any relevant visual aids, props, experiments, etc. If you think your presentation will take up a lot of extra room, or might get messy, let us know and we can make accommodations.

Prizes will be awarded for 1st, 2nd, & 3rd place (**AZZ Gift Cards!**) and the judges will be members of the First Robotics Team. Scores will be based on presentation, effort, and creativity. Some younger scientists may want to do a simpler presentation on a subject that interests them and they are encouraged to do so! Science Fair Ribbons for every participant are included.

Instructions for participation:

Step 1: Choose a Project/ Form a Hypothesis

Science is all about answering questions: How do planes fly? How cold is ice? What happens to a tooth left in soda? Think of something you are curious about. Now formulate a Hypothesis, or statement that you can test as true or false. What sort of experiments would help gather information to test your hypothesis?

Step 2: Build Experiment and Make Observations

Using scientific tools (ruler, timer, thermometer, etc.), begin observing your experiment and recording your results. Negative results are just as helpful as positive results! Collect all of this information and make adjustments to your experiment based on your hypothesis.

Step 3: Put it All Together

Using your trifold and any other props from your experiment, present your results in an easy-to-read and fun manner. Show us your Hypothesis, your recorded results, and any parts of your experiment that might be interesting!

Presentation of Project:

Once you've chosen a project, and have made your observations or done your experiment, you're ready to present your work. A scientific study is made up of the following components:

Introduction. This is where you state your hypothesis, briefly describe how you are going to test it, and tell us why this is important to you.

Materials and Methods. This is where you clearly state what you did in your experiment, or how/where/when you made your observations. The purpose of this section is to give other scientists instructions on how to replicate your work so that others can test your hypothesis as well. This is how scientists work together!

Results. This is where you report your measurements or observations. This section is not for interpretation—that will come later on in the discussion. From our example above, this is where you might have a chart that lists all of the Wednesdays throughout your experiment, and what the weather was like. This is where other scientists would look to see how your data compare to theirs, so simple and short is best!

Discussion. This is the fun part! The discussion is where you get to tell us what you think your measurements mean, and whether or not your hypothesis survived the experiment! This is where scientists get to be creative and come up with new ideas about the world around them. It's also where they get to talk about what they learned, and what work still needs to be done to really understand their project.

Acknowledgements and References. In this section, you'll thank all of the people that helped you—parents, neighbors, and friends. You'll also want to list any books, magazines, websites, etc. that you used throughout your project. Scientists learn by collaborating and sharing information, but it's very important to list your sources so that the original works are given the credit that they deserve.

Where to go for inspiration:

There are a ton of websites full of ideas for science fair projects, but here are a few that I found useful:

<https://www.education.com/science-fair/> This one is great because you can search for a specific grade level or subject of interest.

http://www.sciencebuddies.org/science-fair-projects/project_ideas.shtml This website has a survey that you can fill out to help you choose the right project for you. It also lets you select the amount of time you have before the science project is due, and gives an estimate of the cost involved (a lot of projects can be done for little to no money!).

If you need materials, the PTO has:

Popsicle sticks

Glue

Balloons

Baking Soda

Vinegar

Pipettes

Thank you for participating!!!