

# Congratulations!

You have been invited to participate in the Sand Ridge Jr High STEM fair on Jan. 24th, 2018. Attached are instructions for making a board and a copy of the judging sheet. (It is not required that you participate, but HIGHLY suggested.)

Please register online at the following website by **Jan 19th**. If you don't register, you cannot participate. Each person (not project) must register. Good Luck! Money and Prizes await you!

**<http://tinyurl.com/sandridgesciencefair>**

## ***PLEASE READ ALL OF THESE INSTRUCTIONS!***

Science Fair is Wednesday Jan 24th! YIPEE!

On the day of the fair, you will need to dress up. That means that boys should wear nice slacks, (no jeans) and a shirt **and tie**. Mrs. Huddleston has a few if you need to borrow one. Girls should wear a skirt, dress, or dress pants that are modest (goes to your knees) and meet dress code (no jeans). Mrs. Huddleston can get you one to borrow if you need one. When you get to school on the 24<sup>th</sup>, you will need to take your board to the gym and set up BEFORE SCHOOL STARTS. You will receive a # to put on your board on Tuesday in your Science class. Wednesday morning, find that same # in the gym and set up your board. Go to 1<sup>st</sup> period. Listen for the announcement during 1<sup>st</sup> to come back to the gym for judging to begin. You will be in the gym till lunch.

On the day of the fair, you will need:

1. Your science fair board.
2. Your log-book or workbook. This could contain research, rough draft data collection etc.
3. Your presentation notes. 3 x 5 cards work great.
4. Yourself looking snazzy. (NO JEANS)
5. A library book, homework, Ipod, GameBoy, phone, etc. to work on as you wait. You will be there for a couple of hours, and are not allowed to get up and walk around. You must stay at your project for the entire time or you will be asked to leave the fair. (Use the bathroom BEFORE the fair)
6. Anything you would like to show the judges in reference to your project. (Just nothing that can spill or make a mess).

Judging will occur sometime during 1<sup>st</sup> through 4<sup>th</sup> period.

Let your parents know that the gym will then be open to the public if your parents would like to come and take a look from 12:00-2:00 PM.

After your STING teacher takes roll, please come back to the gym and pick up your boards. You can take them home or can store them in your teacher's classroom until the District Fair.

The top 50 projects will advance to the District Fair on Feb 22nd for 6-8 grades and the top 50 projects for 9<sup>th</sup> grade will advance to the District Fair on Feb 23rd.

Our school award ceremony will take place on Monday Jan 29th during STING 1:45-2:30 in the upstairs auditorium. Parents are invited to attend.

# How to make an AMAZING Science Fair Board

You will need to use a tri-fold board. We sell them here at school for \$3.00. Pay the office and bring your teacher the receipt. Do not buy a teeny tiny board. It needs to either a 32x48 inch, 36x48 inch or 48x48 inch.

Amazing Tip #1: TYPE everything. DO NOT HAVE HANDWRITING ON YOUR BOARD. Put your name and period on the back.

Amazing Tip #2: Use a LARGE Font as suggested below. The following fonts are suggested: Arial, Arial Rounded, Comics Sans, or Times New Roman. Don't use more than 2-3 different fonts or colors.

Amazing Tip #3: Mount your paper on a different colored background or have a border around your different section headings. Use a glue stick and not white glue if possible.

Amazing Tip #4: Turn your documents to LANDSCAPE when typing and printing.

Amazing Tip #5: Use a paper cutter if you have one, or put cut lines on your papers.

Amazing Tip #6: Make sure your graphs and charts are in color, have a title and the x-axis and y-axis labeled correctly.

Amazing Tip #7: Make sure you have pictures of you doing your project and other pictures of your project on the board.

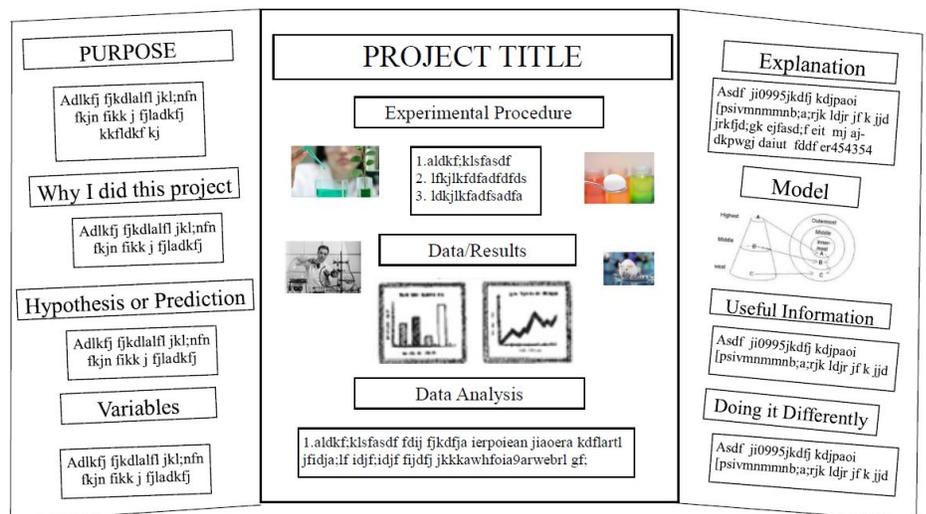
Amazing Tip #8: Make you title BIG (100-300 font). It should cover the top of the middle section.

Amazing Tip #9: All of the other sections should be labeled with a heading with a font larger than 80: Purpose, Why I Did This Project, Hypothesis, Variables, Experimental Procedures, Data Results, Data Analysis, Explanation, Model, Useful Information, Doing it Differently,

Amazing Tip #10: The font for each section under each title should be bigger than 24 font if possible. Remember, you have to be able to read the board standing 3 feet away.

Amazing Tip #11: For the school fair, you are ok to bring liquids, plants, animals, etc. if you want to. You may also bring other items to show that you used during your project. For the district fair, you ARE NOT allowed to have any food, liquids, plants, animals, petri dishes etc. So make sure you take lots of pictures.

Amazing Tip #12: You should have some type of Log-Book. It should contain all of your collected data and rough draft data. It should also include any research and any extra graphs or charts or pictures that are not on your board. Essentially, it proves that you actually did the experiment. The judges will ask for it. The fair is Jan 19th. You HAVE to bring your project to school on Jan 18th to get your registration # on your board.



## Presentation Outline you can use at the fair.

1.	Introduce yourself. "Hello, my name is _____"
2.	Give the Title. "The title of my project is _____"
3.	Explain the purpose of your experiment. "The purpose of my project was to _____"
4.	Tell why you choose this project. "I was interested in this project because _____"
5.	Explain hypothesis or prediction. "Originally, I thought that _____ would happen because _____"
6.	Begin explaining what you tested. "To find out an answer, I had to do an experiment. The independent variable was _____ and my dependant variable was _____. I measured the dependent variable by _____"
7.	Tell what you did. "So here is how I did my experiment: _____"
8.	Point to your picture. "Here is a picture of my doing my experiment"
9.	Explain your results. "Here is the data that I collected. " Point to your graph.
10.	Explain what the data means. "From these results, I found out that _____"
11.	Explain the science behind WHY you got those results. "In doing some research, I found out that the reason why _____ happened is because _____"
12.	Point to model and explain. "Here is a model to help explain what happened"
13.	Explain why this information is useful to you. How can you or others use this information in real life? "From this experiment I learned ....."
14.	Differently? "If I redid this experiment, I would have _____ because _____"
15.	I Wonder. Tell a question you are still wondering about. It could be a question that came anywhere during your project. "This project made me wonder....."
16.	Say: "DO YOU HAVE ANY QUESTIONS?"

(Use these steps to make 3x5 cards for your presentation)

- When a judge comes up to you, STAND UP.
- Shake their hand and introduce yourself.
- Use your 3X5 cards if you need reminders of what to say.
- Speak LOUDLY and SLOWLY.
- Point to where you are on your board.
- Make eye contact
- SMILE as your speak.

## THE JUDGING SHEET

Judge ID# \_\_\_\_\_ Project Title \_\_\_\_\_ Project # \_\_\_\_\_

<p><b>Asking Questions and/or Defining Problems</b>          Research question, problem, or phenomena is identified, testable, focused and clearly written. _____/4          The problem, question or phenomena identification demonstrates original thought/innovation. _____/3          Additional questions are generated during or after the investigation. _____/3</p>	10 pts
<p><b>Developing and Using Models to Demonstrate Understanding</b>  <u>For Science:</u> Uses models (pictures, physical scale models, diagrams representing forces, descriptions) to demonstrate phenomena. The model helps to explain the phenomena. _____/10          OR  <u>For Engineering:</u> Science understanding is communicated through a physical, mental, analogy, graphical/mathematical modeling process to explain conceptual understanding. The models help to "Explain the science" _____/10</p>	10 pts
<p><b>Planning and Carrying Out Investigations</b>          Hypothesis or predictions are justified with an explanation based on past knowledge or research. _____/5          Procedure can be easily repeated by someone else and achieve similar results. _____/5          Investigation is repeated enough times and/or the sample size is large enough to collect accurate data. _____/5          Variables are clearly defined and the outcomes are measurable. (Variables could include independent, dependent, controlled, constants.) _____/5</p>	20 pts
<p><b>Analyzing and Interpreting Data</b>          Data is presented in a summative form that reveals patterns and relationships. _____/5          The data presented is relevant to the investigation. _____/5          There is sufficient data to support conclusions or to support a valid claim. _____/5          The data was analyzed and interpreted correctly. _____/5</p>	20 pts
<p><b>Using Mathematical and Computational Thinking</b>          Mathematical tools (averages, correlation coefficients, slope, line of fit, % difference, and standard deviation) are used to interpret data. _____/10</p>	10 pts
<p><b>Constructing Explanations and Designing Solutions</b>  <u>For Science:</u> Conclusion relates back to the original question, claim or phenomena. _____/3          Provided explanations show why and or how their data supports or justifies the conclusion. _____/3          Student can develop their own explanation of why the phenomena occurs. _____/4          OR  <u>For Engineering:</u> The design solution fits the original need or intent. _____/5          Student provides an explanation as to why their design solution best fits their problem. _____/5</p>	10 pts
<p><b>Engaging in Argument from Evidence</b>          Student is able to answer questions in support of their conclusion based on evidence. (data) _____/5          Connections to the real world, or similar phenomena are identified. _____/5</p>	10 pts
<p><b>Obtaining, Evaluating and Communication Information</b>          Information regarding the science behind the phenomenon or problem is obtained from outside sources such as internet, science magazines, experts etc. _____/2          Project board includes all the necessary information to adequately present the entire project. _____/2          Students are able to communicate clearly the steps they used in their investigation. _____/2          Students communicate in a way that is understandable to the listener which includes speaking clearly, loudly, making eye contact, and covering all pertinent information. _____/2          Project board is easy to read, font is large enough, follows a start to finish flow, no handwriting. _____/2</p>	10 pts

COMMENTS:

TOTAL \_\_\_\_\_

Verified Once

Verified Twice