SCIENCE FAIR PACKET

SCIENCE PROJECT DEADLINES

Event	1st Semester Science	2nd Semester Science
Science Project Idea Approval	September 27, 2016	October 7, 2016
Science Fair Contract Due Date	September 30, 2016	September 30, 2016
Display Board Due Date	November 9, 2016	November 28, 2016
Class Presentations	November 9 – November 16, 2016	November 28 – December 22, 2016
Science Fair Entry Form	December 15, 2016	December 15, 2016
KMS School Science Fair	January 24, 2017	January 24, 2017
Mineral County Science Fair	February 1, 2017	February 1, 2017
Regional Science Fair	March 14, 2017	March 14, 2017

Some Resources for Science Fair Projects

International Science and Engineering Fair

- https://student.societyforscience.org/intel-isef
  This site contains the rules and regulations we need to follow and all of the forms we use to meet requirements of the science fair.

Science Buddies – Science Fair Project Ideas, Answers & Tools for Serious Students

- http://www.sciencebuddies.org/
  This site provides a great list of science fair project ideas as well as great information on how to do a science experiment.

Science Fair Central (Discovery Education)

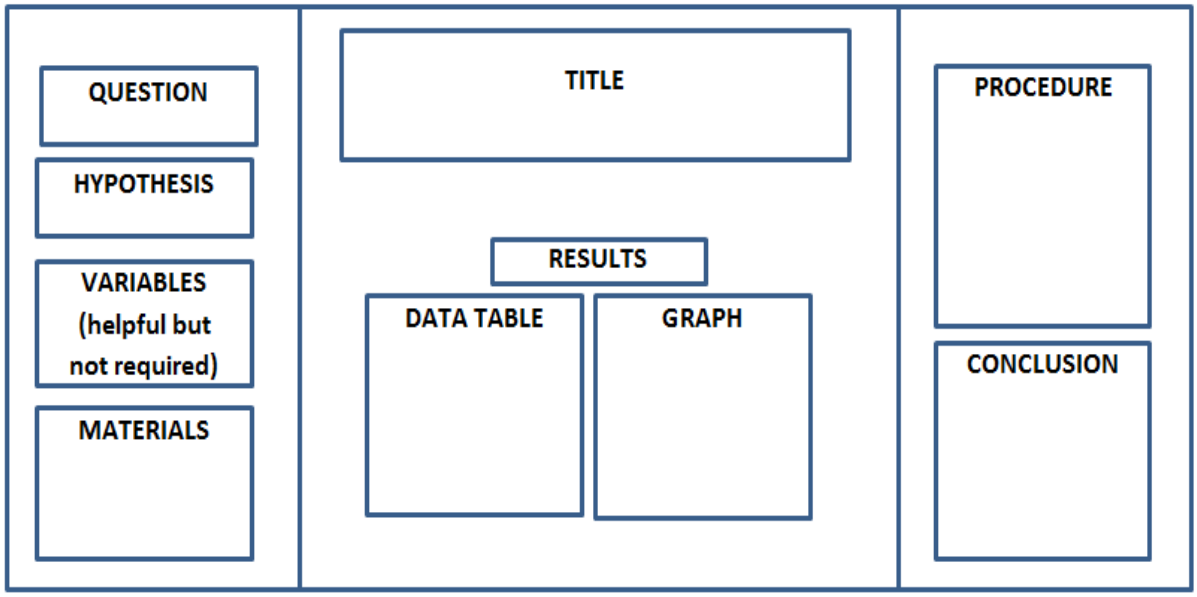
- http://school.discoveryeducation.com/sciencefaircentral/?pID=fair
  A list of science fair resources and science project ideas for students.

Other resources and books are available in the science classrooms of your student, local libraries and on the Internet.

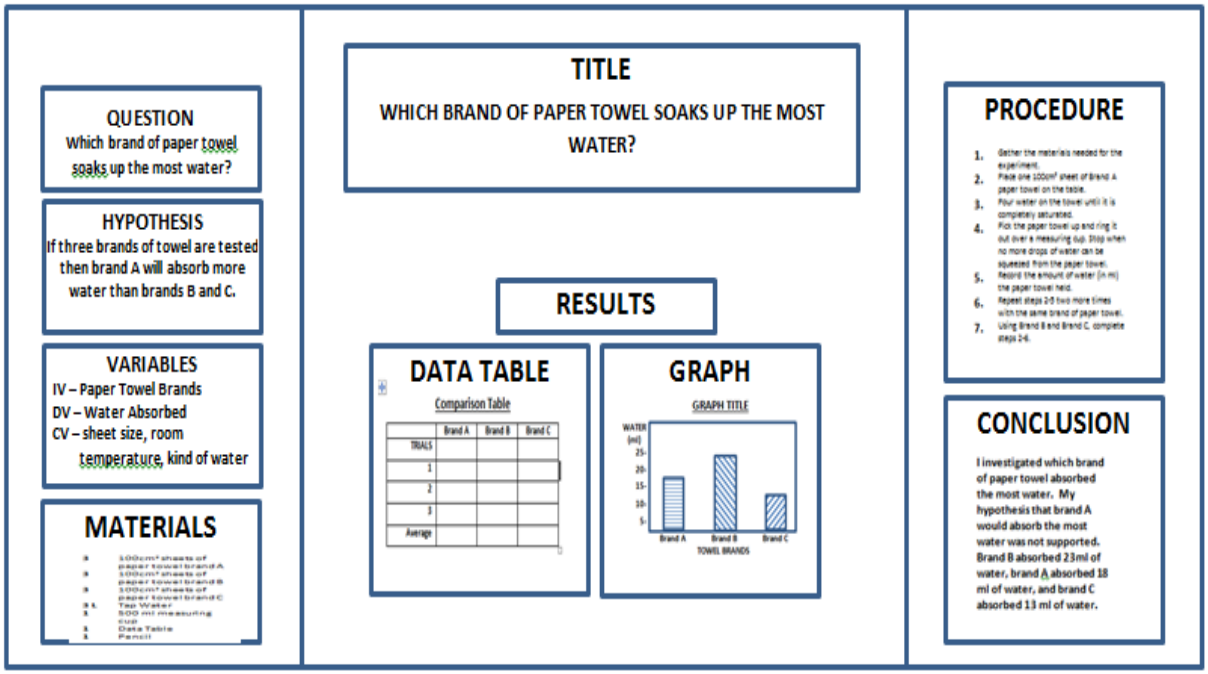
DISPLAY BOARD HELP:

- **Use this diagram to plan your display board. All of these categories must be on your display board.**
- **Variables are optional, but a good idea to include.**
- **Pictures can be added but are not necessary.**
- **No living materials or items from your experiment can be on your display board.**

LAYOUT



EXAMPLE



SCIENCE FAIR RUBRIC

Name: _____ Grade: _____ Title: _____

Requirements for Project Display	Your Score	Point Value
Backboard display is neat		5
Backboard display is legible		5
Display is readable at five (5) feet		5
Display is neatly constructed		5
Grammar		5
Spelling		5
Problem clearly stated (in question form)		20
Hypothesis correctly formulated		20
Procedures are numbered		10
Procedures control variables		40
Materials listed		10
Results reported clearly utilizing data tables		10
Data table is constructed correctly		10
Results reported clearly utilizing graphs		10
Graph is constructed correctly		10
Conducted a significant number of trials (3 trials 20pts, 2 trials 15 pts, 1 trial 10 pts)		20
Metric units are used		10
Conclusion states original problem		10
Conclusion accepts or rejects the hypothesis		10
Conclusion in paragraph form (3-5 sentences)		10
Conclusion is supported by data collected		10
Subtotal		**240**

Requirements for Project Presentation	Your Score	Point Value
Problem/Title Clearly Stated		10
Hypothesis is stated		10
Independent (5), Dependent (5), and Controlled Variables (5) are correctly stated		15
Explanation of materials (5) and procedure (5)		10
Review findings and data with explanations of table (15) and graphs (15)		30
Conclusion is supported by data		10
Able to explain and answer questions about the project accurately		10
Speaks loudly (2), clearly (2), maintain good eye contact (2), & professionalism (2). Meets time requirements (3-5 minutes) (2)		10
Presented in the correct order		20
Subtotal		**125**

Requirements for Abstract	Your Score	Point Value
Purpose		5
Procedure		5
Results (data)		5
Conclusions		5
Reflection/Application		5
Proper forms are submitted		10
Subtotal		**35**
GRAND TOTAL		**400**

COMMENTS

10% will be deducted from the final project grade for each day that it is turned in late.

Teacher Signature:

Abstract Instructions

The abstract is a paragraph that includes the purpose, hypothesis, procedure, results, conclusion, and reflection of your experiment. Abstracts should be **single-spaced using 12 pt type**. Abstracts may not exceed 250 words and must be typed. **Do not** attach your abstract to your board. Turn in your abstract on the day of your presentation.

Abstract should be typed on the ISEF official Abstract and Certification Form. Be sure to fill out the form completely. An interactive abstract from is available online at http://www.societyforscience.org/isef/document/abstrct.pdf

Writing a Scientific Abstract

- First page of paper after the Title Page
- Serves as a basic summary of the experiment

Begin with:

- Title of Project,
- Your Name
- School, City, State

Three paragraphs with headings:

- Purpose
  - Guiding Question
  - Statement of interest
  - Data
  - Who would benefit from the research
- Procedure
  - Quick summary of the methods that is not too detailed.
- Data
  - What did your final averaged data say about the results
- Conclusion
  - What did the results tell you
  - Was your hypothesis supported or not supported
  - Why do you think the results came out the way they did
  - What would you do differently to make sure the results are accurate

- Typed single-spaced: Use a 12-point font.
- 250 words or less: Choose your words carefully and include all the needed information.
- The abstract is due the day of your presentation.

Sample Abstract Template (You should edit this to fit your own experiment)

Purpose

For my science fair project, I did an experiment whose purpose was to determine _____. I was interested in this experiment because _____. The results of my experiment would be of interest to ____ (professions or specific people) _____ because_____.

Procedures

To do my experiment, I _____. Then I _____. Finally, I _____. I recorded my data using a _____ and chose to display it using a _____ because _____.

Data

The data showed that my first experimental group had an average of _____. My second group had an average of _____. My third group had an average of _____.

Conclusion

The results of my experiment showed that _____. My hypothesis was proven _____. Based on my results, I think that _____. One thing I might change to make the experimental results more accurate if I did the experiment again is _____.

SCIENCE FAIR PROJECT CHECKLIST

DATE		Teacher Initials
_____1.	Return the science fair contract. ***(Due: September 30, 2016)***	_____
_____2.	Choose a topic***.*** ***(Due: September 27 or October 7, 2016)***	_____
_____3.	Write a scientific question to investigate. Get this approved by the teacher. Write question here: _____ _____ ***(Due: September 27 or October 7, 2016)***	_____
_____4.	Research your project using books and the Internet.	
_____5.	Write down the sources of your research in a bibliography.	
_____6.	List the materials you used and how much of each.	
_____7.	Complete any forms needed to do the experiment. - ALL PROJECTS need an abstract - Projects for the Mineral County Science Fair require a science fair application and a research plan. - Projects that involve scientists, experiment with animals, chemicals, and people require other forms. *See your teacher about this.*	
_____8.	Collect the data.	
_____9.	Organize the data into at least one chart and at least one graph.	
_____10.	Write your conclusion.	
_____11.	Write your project abstract.	
_____12.	Get a science fair display board. Display board must be equal to or less than 30” (Depth) by 48” (Width) by 108” (Height)	
_____13.	Build your science fair display including a title, a scientific question, your hypothesis, your materials, your experimental procedure, the variables, a chart, a graph, and your conclusion. You may also include pictures of your experiment or topic on the board.	
_____14.	Bring your display on the due date. ***(Due: November 9 or November 28, 2016)***	_____
_____15.	Write your 3-5 minute speech. This should explain the project title, your research on the topic, the scientific question, your hypothesis, your materials, your experimental procedure, the variables, the chart, the graph, and your conclusion. You should also thank those that helped you.	
_____16.	Share your science fair project at the after-school science fair.	

TURN IN THIS PAGE ON YOUR PRESENTION DAY.

Intel ISEF OFFICIAL ABSTRACT and CERTIFICATION

Category
Pick one only--mark an "X" in box at right

- Animal Sciences
- Behavioral and Social Science
- Biochemistry
- Cellular & Molecular Biology
- Chemistry
- Computer Science
- Earth Science
- Eng. Electrical & Mechanical
- Eng. Materials & Bioengineering
- Energy & Transportation
- Environmental Management
- Environmental Sciences
- Mathematical Sciences
- Medicine and Health
- Microbiology
- Physics and Astronomy
- Plant Sciences

1. As a part of this research project, the student directly handled, manipulated, or interacted with (check ALL that apply): ☐ human subjects ☐ vertebrate animals
   Potentially hazardous biological agents: ☐ microorganisms ☐ rDNA ☐ tissue
2. Student independently performed all procedures as outlined in this abstract. ☐ Yes ☐ No
3. Student worked or used equipment in a site other than school, field or home. ☐ Yes ☐ No
4. This project is a continuation of previous research. ☐ Yes ☐ No
5. My display board includes non-published photographs/visual depictions of humans (other than myself): ☐ Yes ☐ No

I/We hereby certify that the above statements are correct and the information provided in the Abstract is the result of one year's research. I/We also attest that the above properly reflects my/our own work.

Finalist or Team Leader Signature _____ Date _____

This embossed seal attests that this project is in compliance with all federal and state laws and regulations and that all appropriate reviews and approvals have been obtained including the final clearance by the Intel ISEF Scientific Review Committee.

FOR INTEL ISEF OFFICIAL USE ONLY

You and a parent/guardian need to sign and return this by SEPTEMBER 30, 2016.

SCIENCE FAIR CONTRACT

REQUIREMENTS

All middle school students in Mineral County are required, as part of the science curriculum, to complete a science project each school year.

A well-designed and executed science project requires a major investment of time and energy on the part of the student. For this reason, grades on science projects will comprise one third of their 9 weeks grade.

The team project category will be an option for eighth graders only. All sixth and seventh grade students must complete individual projects.

Eighth grade students who choose to do team projects must sign a contract agreeing to the conditions set forth for this special category. One condition will require team members to have written consent from their parents.
Please see YOUR TEACHER for this form.

Option:

All middle school students in Mineral County are strongly encouraged to enter their school's Science Fair, but are not required to do so.

Keyser Middle School students have a tradition of outstanding achievement at County and Regional Fairs. Over the thirty years of fair competition, they have probably won more awards than any other school in the Eastern Panhandle. With your involvement, you can help insure that this proud tradition continues.

Science Fair Contract:

I, _____, understand that I am required to complete a science fair project according to this handbook. I have read this packet. I also know that my project must be my own ideas and work must be turned in on or before **September 30, 2016**.

_____

Student signature date

_____

Parent/guardian signature date