Dear Parents and Guardians,

It is time for our annual 7th grade science project. This provides an opportunity for students to demonstrate their understanding of many concepts that they have learned this school year while investigating a topic that interests them. Each student is required to research, design, conduct, write-up and present his/her own life science experiment. This process will review the scientific procedure (hypothesis, purpose, materials, procedure, data collection, observations, data analysis, and conclusion) and give students practice in technical writing.

The attached sheets summarize the project. As this project is a large endeavor and will take place over five months, we have broken the project into steps and have many deadlines along the way. It is important for students to meet all the deadlines in order to not fall behind. Points will be earned for each assignment that is turned in. **Late work will receive half credit! Each assignment has been given in advance. If a student is absent the day before an assignment is due he/she must have the assignment the day he/she returns. If he/she is absent the day something is due it must be turned in on the day he/she returns**. Please write the deadlines on a calendar at home and check the schedule regularly.

Students have the option to work independently or with a partner. It is important that partners work well together and have time to meet after school. The students do have to be in the same science class together.

The first assignment, due Friday, February 13th, is for students to bring back the "Project Proposal Sheet" indicating that you have read through the packet, agree with the investigative question that your student has chosen and will or will not allow them to work with a specific partner. Also, we have a handout with a detailed description of each part of the project. If you would like this information, please check the EJH website. The document will be uploaded there.

This project is invaluable to the 7th grade students. We expect, with your support, that this will be a meaningful learning experience. If you have any questions or concerns, do not hesitate to call us at the school.

Thank you,

Ms. Williamson & Ms. Benoliel

Introducing the Seventh Grade Science Project!

This is your chance to answer that life science question that you have been wondering about all year!

Your job will be to research, design, conduct, and present your own science experiment. This will give you an opportunity to take a more in-depth look at a life science topic and use many of the skills that you have learned this year. This project will also give you a good idea of how experimental scientists conduct experiments.

We will work through this project in small steps. There will be due dates at each step to make sure that you are on track and do not fall behind. Some of the work will be done in class and some will have to be completed at home. You will be working through the following steps to complete the project:

1. With help from books, the Internet, and your classmates, you will choose a topic to research.
2. You will find and read some resources that will give you background information on the topic so that you can design a good experiment and keep your living organism safe.
3. You will carefully design a good experiment.
4. You will conduct the experiment. This may take a while, as there are always unforeseen problems.
5. You will put together a formal lab report and a display board explaining your experiment.
6. You will share your project with the class and parents, teachers, and the community at our annual Science Fair.

It is important not to wait until the last minute or you will run out of time! Be sure to meet all of the due dates. Seek help from your teacher before or after school if you get confused along the way. This will help your project go smoothly and ensure that you get a good grade. Each part of the project will be graded when you hand it in. This is your big chance to do a "REAL" science experiment. Be sure to choose a topic that interests you and it will not seem like work.

CAUTION: *AN ADULT MUST SUPERVISE EXPERIMENTS DONE OUTSIDE OF SCHOOL.*

There will be two parts to the finished product – a formal lab report and a display board.

The formal lab report needs to have the following sections:

(1) Title Page

(2) Table of Contents

(3) **Special Thanks** – In a few short sentences, the special thanks acknowledges the people who help you with your project.

(4) Introduction- The introduction is a summary of the background information researched about the topic BEFORE starting the experiment.

(5) Experimental Design Diagram- This is where the variables are identified and the prediction is made.

(6) Materials List- The materials list is an organized list of all the equipment and materials that are used during the experiment. Remember to include details such as sizes, specific types and numbers of each item.

(7) Procedure – This is an explanation of the actions taken to get the data. Remember to include a diagram, before the procedure.

(8) Results Table – This is an organized table showing all of the measurements that are taken. Remember to label the MV and RV.

(9) Graphs – The graphs are a visual display of the results.

(10) Conclusion - The conclusion is where the results are discussed and interpreted.

(11) Resource List – The resource list, a bibliography, includes any books, magazines, newspapers, interviews, Internet articles, CD ROMs and other sources that are used to gather information. It needs to use the format given.

Please do not work ahead. Specific instructions for each part will be given in class.

You will also need to make a display poster that will help you during the class presentation and on the night of the Science Fair. This poster should include: title, EDD, materials list, procedure, results tables, graphs, pictures, photographs, and a conclusion. The introduction is optional. More information about the display board will be given in class.

Parts of an Experiment Summary and Deadlines

There are 11 written parts of this project that need to be completed. Students should follow these steps in order and ***not work ahead without prior teacher permission***. Each step of the experiment has be given a due date and will be graded by the teacher.

1. Read the "Parts of an Experiment" packet carefully together with your parent/guardian and bring back Project Proposal Sheet. **Due 2/13 (10 pts)**

2. Complete an introduction and resource list on your subject. The introduction is the background research that will answer the questions that will help you keep your living organism alive and write a strong hypothesis and conclusion. Specific directions will be given in class. **Due 3/13 (30 pts)**

3. Complete the Experimental Design Diagram. **Due 3/20 (10pts)**

4. Bring the *first draft* of your materials list, procedural diagram and procedure to class to revise. **Due 3/25 (5 pts)**

5. After revising, turn in a ***revised draft*** of the materials list and procedure. **Due 3/26 (30 pts)**

6. Construct a ***blank*** results table in Excel so you will be able to record the results as the experiment is being carried out. **Due 4/8 (10pts)**
   If you would like to start the experiment during spring break please have the blank results table to show your teacher before March 26 (before spring break).

7. Collect your materials and build any necessary apparatus. Conduct the experiment and record the results. **Start experiment around 4/9 and finish by 5/1.**

8. Bring data table with results *hand written in* to class. **Due 5/6 (5 pts)**

9. Hand in the computer made results table and graphs. **Due 5/13 (30 pts)**

10. Hand in a ***final*** materials list, procedural diagram and procedure with any changes that you needed to make while doing the experiment. ***It should also include more detail now that you have done the experiment.*** **Due 5/15 (40 pts)**

11. Write a first draft of the conclusion. Organize all six paragraphs, directions to be given in class. **Due 5/20 (10 pts)**

12. Hand in the ***FINAL LAB REPORT*** with all 11 parts of the experiment ***CORRECTED***.
    Due 5/28 (lots of points; around a hundred).
    Late projects will be penalized 10% per day.

13. Bring your beautiful, creative display board to class. **Due 6/2 (60 pts)**

14. Students will display their projects in class and at the Evergreen Science Fair on **Friday, June 5th from 7 pm to 8 pm** in the commons. ***Extra credit is available for attending the science fair night***. The display boards will be taken home from the science fair.

Project Proposal Sheet

Investigative Question

In the space below write the investigative question that you would prefer to do for the science project. Also, give one alternative question that you would be willing to do.

1.

2.

Agreement

We have read this packet together and posted the due dates in an appropriate location. We have discussed the investigative question and agree that it is a good project to complete.

Signature of Parent/Guardian Date

Signature of Student Date

A complete description of each part of the experiment will be posted on the Evergreen Junior High website.

☐ I would prefer my student to work independently on this project.

☐ My student can work with the following partner on this project (needs to be in the same class)

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