Middle School Science Classses SCIENCE FAIR

NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SCIENCE FAIR 2012**

The science fair is an activity that the middle school will hold this school year. It aims to allow our older students to learn and investigate facts using the scientific method outside the classroom. It starts this fall and will end in spring of 2012. This is an individual project. The project will be recorded as a test. Students may seek **assistance** from parents, siblings, friends and/or others. However, the project is to be done by the student himself/herself.

Since the project will take a while to accomplish, a breakdown of tasks and deadlines are set. Make sure that for each submitted paper, you have your own copy. You will need this copy when you write your research paper. Each task is recorded as a quiz. Each task will be written on a form that will be provided. If the submission of the task is delayed, 5 points will be taken away for each day it is not submitted. After 2 days of delay, the form may still be submitted but you will receive a zero for this task. The following is a breakdown of tasks and important dates to remember:

**December 6, 2011 (Tuesday) –** Calendar is explained and a copy is sent home. Parents read and sign them. Copy of the signed calendar is due **December 9**, **2011**.

**December 9, 2011 (Friday)** – Calendar with parent’s signature is due. This is considered as a quiz. No calendar with parent’s signature means a zero in the quiz.

|  |  |  |  |
| --- | --- | --- | --- |
| **Scientific Method** | **Task to be Performed** | **Dates Involved** | **Date Due and**  **Task Due** |
| Choosing a Topic | Choose a topic in science that you are interested in. Write down 3 topics. Choose a topic that is more specific rather than general For example, you may be interested in rockets. This is a general topic. Try to pick a more specific subject about this topic. For example, how to launch rockets. This is a more specific topic. | December 6-9 | December 9, 2011: Submit topics on Science Fair Project Sheet 1 with your **parent’s signature**. |
| Research | Read about your topics. When you know more about your topic, you have a better knowledge of the things and concepts you may want to investigate. Ask teachers, scientists and other professionals who may have working knowledge of your topic. Write down the books, journals, internet websites (please write the complete address of the website) that you used for your research. This should help you narrow down your list. | December 12 | December 12, 2011:  Submit list of research materials on Science Fair Project Sheet 2 with your parent’s **signature**. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Scientific Method** | **Task to be Performed** | **Dates Involved** | **Date Due and**  **Task Due** |
| Write your problem/  question | After reading about your topic, you should be able to narrow it down to one. It is time to decide what problem you will have for your science fair. Write down your problem. | December 16 | December 16: Submit your problem on Science Fair Project Sheet 3 with your **parent’s signature**. |
| Formulate your hypothesis | Once you have written your problem, you can formulate your hypothesis right away. Remember that the IF/THEN statement is a good way of writing this down. You hypothesis must include both independent and dependent variables. These 2 variables must be measurable. | December 16 | December 16: Submit your problem on Science Fair Project Sheet 3 with your **parent’s signature**. |
| Design the experiment | As soon as the hypothesis is written, you are ready to design your experiment. Experimental Design includes materials and procedure. The materials include the list of all things you will be using in the experiment and their exact measure. The procedure is the step-by-step instruction of your experiment. It might be helpful to remember that if another person reads and follows this procedure, he/she will be able to do the steps in exactly the same way as you did. | December 16 to December 20 | December 20: Submit your Experimental Design on Science Fair Project Sheet 4 with your **parent’s signature**. |
| Experiment | Perform your experiment. Remember to ask for assistance if it is needed. When you do your experiment, make sure someone helps you document it by taking pictures if it is possible. | December 20 to January 30 |  |
| Data Gathering | As you perform your experiment, you may start gathering data. Organize your data in a table, chart and/or graph. If your experiment needs time, set a schedule where you can gather data in a more regular schedule. Document your data. | December 20 to January 30 | February 6: Submit a your data in a table, chart or graph form on Science Fair Project Sheet 5 with your **parent’s signature**. |
| Data Analysis | After the entire experiment is completed and all the data gathered, it is time to try to understand what the data is telling you. Look for patterns. Does your data support your hypothesis or not? | January 30 to February 6 | February 6: Submit a your data analysis on Science Fair Project Sheet 6 with your **parent’s signature**. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Scientific Method** | **Task to be Performed** | **Dates Involved** | **Date Due and**  **Task Due** |
| Conclusion | After analyzing and understanding the data you have gathered, make your conclusion. The conclusion must show that your hypothesis is either true or false. If you have any recommendations or comments about the experiment, this is the part where it will be included. | January 30 to February 6 | February 6: Submit a your data analysis on Science Fair Project Sheet 6 with your **parent’s signature**. |
| Making a Report: Research Paper | Part of the scientific method is to make a report of what you have done. Write a research paper about your experiment. Each part of the scientific method should be included in the research paper. A guide sheet will be given to you to make sure you have all the parts you need to make a good report. | February 6 to 16 | February 16: Submit a your Research Paper |
| Making a Report: Display Board | Another way of reporting what you have done is to make a display board for the Science Fair itself. Use a corrugated 3-part display board. Include all the parts of the scientific method in your board. You may also choose to include some of the materials you used during the experiment in the science fair. This is optional though. Pictures taken while you were doing the experiment may be included in the display board. | February 16 to February 23 | February 23: Submit a your display board for science fair. |

**SCIENCE FAIR AGREEMENT**

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, as a middle school student of

*(printed name of student)*

Clinton Christian School, promise to do my very best to make a science fair project.I understand that this science fair project is designed to help me investigate facts about the world outside the classroom.

I understand that this is an individual project. The science fair project will be recorded as a test. I am aware that I may seek assistance from my parent(s), siblings, friends, etc. but promise to do the experiment myself.

I understand that to help me accomplish this project, a calendar of tasks is given. I have read and understood the calendar of tasks. I promise to keep my copy of the calendar to help me become successful in this project. I also promise to do the tasks according to the time set for me. I also understand that each task that will be submitted needs my parent’s signature and that it will be recorded as a quiz. If I do not submit on time, I will be given a 5 point deduction for each day it is delayed. After 2 days of delay, I can still submit the task but will receive a zero for the quiz.

I promise to give my best in performing this challenge to help become a better student.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student’s signature over PRINTED NAME Parent’s signature over PRINTED NAME

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date Date