Nixon Science Night Kinder-1st Guidebook



This Science Night Guidebook belongs to

Project Title

Most of the text for this booklet came from Margaret Fisher, Science Lab teacher at Fairmeadow School. We are indebted to her for her guidance and the information she has generously shared with Nixon School.

How do you do a Science Night Project?

QUESTION:

Start by deciding on a question you would like to answer about how something in the physical world works. This may be about plants, animals, humans, the environment or the earth. A good place to get ideas is the internet. There are several websites with science project ideas at the Nixon School website: http://lmnixon.org/.

HYPOTHESIS:

Next, you'll need to state your **hypothesis**. A hypothesis is what you <u>think</u> the answer to your question will be and the reasons why you think so. Through your experiment, you will discover whether your hypothesis, your original guess, is correct or incorrect.

BECOME AN EXPERT:

Now is the time to learn everything you can about your topic. Go to the library. Read books and encyclopedias. Talk to experts -- scientists, engineers, veterinarians. Use the computer to search for information. Take lots of notes to help you remember what you learn.

MATERIALS AND EQUIPMENT:

What **materials and equipment** will you need to begin your experiment? You should keep track of everything you use. Your final display will include a description of what you did and how you did it. Be sure to note the number of items you use in your experiment. If you are watering plants, for example, write down the <u>amount</u> of water you use each time. List "I liter of water" rather than just "water". State what size battery you use, or the specific brand of soap you tested.

METHODS:

The **methods** (experiment) section tells how you conducted your experiment. Describe all the steps you will take in an orderly way, just as you would if you were writing a recipe.

DATA:

During your experiment, you will want to write down what happened. This is called data. Take pictures or draw what you see as you go along. Take accurate measurements. You will show all of these on your final display. Some ways to show your records are:

- graphs
- charts
- tables
- drawings
- photos
- displays

RESULTS:

It's time to examine what your experiment or invention has shown. Was your hypothesis correct or incorrect? Why do you think things turned out the way they did? Would you do the experiment differently next time? If you have used only a small number of items, such as five bean plants, can you expect the same results to occur in <u>all</u> bean plants? It might be best to write that your results <u>show</u> rather than <u>prove</u> that your hypothesis is correct or incorrect.

CONCLUSIONS:

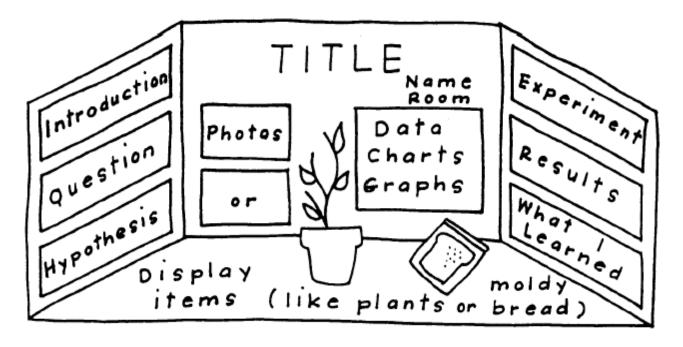
In this section you discuss what you learned form your project. Tell about the information you read. How do the laws of nature work for the question you explored? How did this affect the results of your experiment or invention? How can we use this information to understand how this rule of science works in the world?

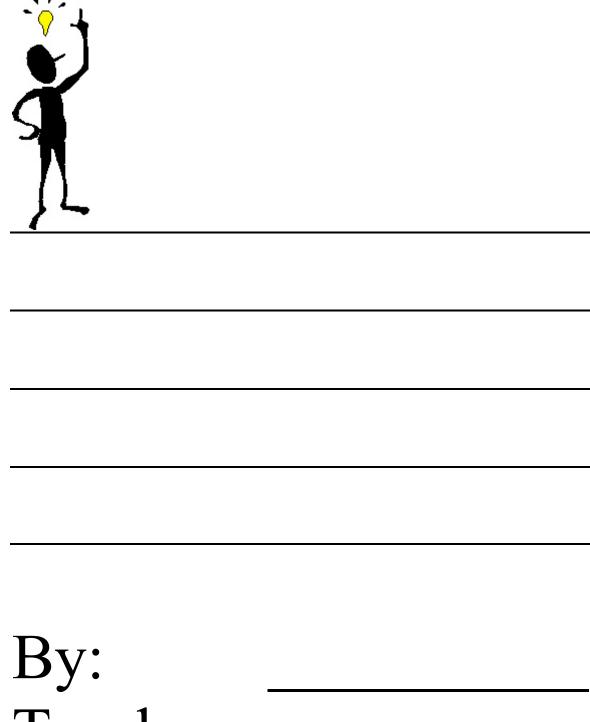
REFERENCES:

Scientists and engineers always keep a list of the books or sites where they obtained information they used to help them with their project. Use this page to list what you read, who wrote it, when they wrote it and where the information was located.

DISPLAY:

The following pages have been created so you can write out each section of your experiment or invention. Complete each page and paste it to your poster board in order. If you make a mistake, your parents can print extra pages form the Nixon website. It should look something like the picture below. Add your own pictures, graphs and display items. Have fun!



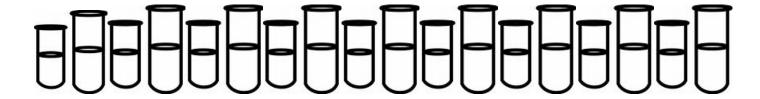


Teacher:

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Hypothesis:



Materials and Equipment:					

