

## Science Blizzard Bag 1

### Science Current Events

The current event assignment requires reading at least one newspaper, magazine article, or online article that pertains to the topic of Science. You will then write a summary of the article.

This assignment will: (1) increase your ability to research current events in Science (2) increase your understanding of an area of Science; and (3) allow you to critically evaluate and present news articles regarding Science topics.

The articles may be from a newspaper, the internet (except Wikipedia), a magazine or periodical. Make sure that you include the name and date of the source as well as the title of the article in your written report. The last paragraph of your paper should include your personal opinion of the article.

Be aware that many newspaper and magazine articles are biased or are missing crucial information. This can be a challenge because you will want to present the information in an unbiased manner. For these reasons, it is highly recommended that you use more than one source for your paper. For example, the Worcester Telegram may report on the issue in one way and the Southbridge News may report on the issue in a different way. Do not use opinion pages as references as these convey the opinion of the newspaper or the writer and are always biased.

The paper should be 1 page in length, double-spaced, one inch margins, and in 12-point font. If, due to power outage, the computer is not available to you then it may be handwritten with a full heading. As much as possible, write the paper in your own words. If you need to use one or two short quotes, cite properly. However, do not merely use long passages or quotes from the article(s) as this will have a negative effect on your score.

## Science Blizzard Bag 2

### Snow Experiment 1

Problem: Can you save the snow?

This assignment will: (1) give you practice in writing a hypothesis (2) increase your understanding of the scientific method; and (3) allow you to perform an experiment and critically evaluate your process.

Make your hypothesis (in an If... then... statement) about how you can save snow in your house.

Write your procedure in a numbered format. You will need a data table and a conclusion.

- Go outside and collect snow in 3 cups.
- Place the 3 cups in different places around your house. Make your choices very different.
- Create a data table so that you can make observations of the snow at 3 different times - beginning, middle and end. Be sure to be detailed in your observations. Use tools (rulers, etc.) if possible.
- Allow time to go by - you choose your time period and explain why. (Don't forget your observations and write the time for each observation)
- Write your conclusion - What happened? Why?

Do have any questions for further experimentation? Were there any issues with your experiment that you need to note? Would you do anything differently next time?

## Science Blizzard Bag 3

### Snow Experiment 2

Problem: Where is the dirtiest snow around your house?

This assignment will: (1) give you practice in writing a hypothesis (2) increase your understanding of the scientific method; and (3) allow you to perform an experiment and critically evaluate your process.

Make your hypothesis (in an If... then... statement) about where the dirtiest snow will be and why.

Write your procedure in a numbered format. You will need a data table and a conclusion.

- Go outside and collect snow in 3 cups from 3 different areas around your house.
- Make your choices very different - driveway, yard, etc.
- Create a data table so that you can make observations of the snow at 3 different times - beginning, middle and end. Be sure to be detailed in your observations. Use tools (rulers, etc.) if possible.
- Allow snow to melt (don't forget your observations and write the time for each observation)
- Write your conclusion - What happened? Why?

Do have any questions for further experimentation? Were there any issues with your experiment that you need to note? Would you do anything differently next time?

## Science Blizzard Bag 4

### Taking Flight

Problem: What makes the best paper airplane?

This assignment will: (1) give you practice in writing a hypothesis (2) increase your understanding of the scientific method; and (3) allow you to perform an experiment and critically evaluate your process.

Make your hypothesis (in an If... then... statement) about which paper airplane model will fly the farthest.

Write your procedure in a numbered format. You will need a data table and a conclusion.

- Design and test at least 4 paper airplane models.
- Try to use the same type of throw with each test.

Do have any questions for further experimentation? Were there any issues with your experiment that you need to note? Would you do anything differently next time?

## Science Blizzard Bag 5

### Flipping

Problem: What allows for the best bottle flip?

This assignment will: (1) give you practice in writing a hypothesis (2) increase your understanding of the scientific method; and (3) allow you to perform an experiment and critically evaluate your process.

Make your hypothesis (in an If... then... statement) about how to best flip a water bottle.

Write your procedure in a numbered format. You will need a data table and a conclusion.

- Using a water bottle (be sure cap is on tight) try flipping a water bottle in the air attempting to have it land right side up
- Try to use the same type of throw with each test.
- Try different levels of water in the bottle
- Does one level of water work better than other levels of water? Why do you think?

Do have any questions for further experimentation? Were there any issues with your experiment that you need to note? Would you do anything differently next time?