# Science Fair Project Checklist

| Dates | Objectives | ✔ |
|---|---|---|
| On Going | -Think about what kind of a science project you'd like to do. | ✔ |
| Nov. 6th | -Parent approval form due with parent signature. | ✔ |
| Nov. 13th | -Science Top 3 List due. | ✔ |
| Nov. 26th | -Science Project Proposal due with parent signature. | ✔ |
| Dec. 4th | -Start experiment testing projects.<br>Scientific write up of your project: Problem, Hypothesis, Variables, and Materials.<br>-Start research projects.<br>Research your topic start to plan models or posters to help explain your topic. | ✓ |
| Dec. 11th | -Experiment testing projects.<br>Start your experiment: record observations and data.<br>-Research projects.<br>Start to make models or posters. | ✓ |
| Dec. 20th – Jan. 5th | -Christmas Break - Hopefully you're enjoying the holidays! This would be a good time to work on your project when you're looking for something to do over the break. | ✓ |
| Jan. 31st | -Finish your experiment: develop your conclusions and reflections for your experiment.<br>-Research projects: finish any models; put together any final touches for your report. | ✓ |
| Feb. 3rd | -Plan your display board. | ✓ |
| Feb. 10th | -Start your display board. | ✓ |
| Feb. 18th | -Display board and good copy of your report are completed.<br>(You're done early just in case something happens) | ✓ |
| Feb. 25th | -SJB Science Fair. | ✓ |
| Mar. 27th & 28th | -Science project displays during Parent/Teacher Interviews. | |
| Apr. 10th – Apr. 12th | -Calgary Youth Science Fair (Olympic Oval – University of Calgary). | |

Projects for the science fair take a lot of commitment and work at home. Each of the above items should be accomplished by or before the assigned date, but don't panic if you haven't got to that point yet. This list is designed to keep the students on track and to guide them with time management. It does allow for flexibility because the students finish a week early before the SMG Science Fair (you never know what could come up at the last minute).

This page will be the first page of a **Science Project Logbook** which is kept in a duo tang. Students are asked to **date and record a brief outline of any work that they do** in the logbook. This is also where they will record any thoughts that they have about their projects and even problems that occur. It is important that the students document **all of their work**, no matter how small the amount of work was that day.

# SCIENCE FAIR LOGBOOKS

Every science fair project **must include a logbook**, also sometimes called a research notebook, which is a complete, permanent record of how you did your experiment/research project; it shows what you did and thought every step along the way.

**LOGBOOK POINTERS:**

- write your logbook in a notebook
- make an entry every time you work on your project
- date each entry
- make your notes in point form
- don't worry about neatness; you do not need to re-copy your logbook to make it look "tidy"
- organize your logbook into sections such as: schedule, daily notes and ideas, background research, contacts and references, experimental procedure/method, data collection sheets, observations/results in tables and graphs, conclusions
- Write everything down, even if it seems insignificant at the time; the information may be useful later on
- Make sure that you describe things in enough detail that you and anyone else reading your logbook in the future will be able to understand your thoughts and repeat the entire experiment exactly like you did it in the first place, just using your logbook.
- You must create your logbook as you go; it is unacceptable to create your logbook on the computer after you have finished your project
- NOTE: The text that appears on your backboard/tri-fold is just a summary of what you write in your logbook; there is much more information in your logbook than what appears on your backboard/tri-fold.

**LOGBOOK CONTENT:**

- **Timetable :** Come up with a timetable for doing each of the steps of your project and try to stick to it
- **Choose a Topic**: make a list of topics that interest you, things that you are really curious about and that you want to find answers to; explain how you came up with your topic, why you decided to do it.
- **Background Research**: Record your background research about your topic from books, magazines, TV programs, the Internet (with supervision), people and companies. Keep a record about where you gathered your information for your bibliography/list of references and acknowledgements.
- **Testable Question/Purpose:** Based on your background research, write down your testable question/purpose

- **Hypothesis**: write down what you think the results of your experiment will be based on the research that you've done
- **Materials:** List everything that you will need to do your experiment, such as equipment, ingredients, quantities of ingredients, measuring tools etc. Be very specific - give lots of details
- **Procedure**: List the steps you will go through to do your experiment. If you make any changes to the procedure after you start your experiment, describe them in your logbook with an explanation about why you made the change(s) and if the change(s) will affect the results collected prior to the change.
- **Variables**: list the controlled variables, the manipulated variable, and the responding variable
- **Data:** record all of your measurements/raw data that you collected on data sheets in your logbook
- **Results:** record your collected data in charts, tables, graphs, pictures and use these to help you explain what happened in your testing; describe any problems you might have had while you were testing , any changes that you had to make to your original plans, and whether those changes would affect the results collected before you made the changes
- **Conclusions:** write down your conclusions, whether or not your hypothesis was correct and why. It is OK if your results do not support your hypothesis - the information you collected still supports science.
- **Recommendations/Applications**: Make recommendations for improving your project, for further study, and applications I can make from my research

# ELEMENTS OF A NON-EXPERIMENTAL/RESEARCH PROJECT

- **Background Research**: helps you understand your topic; helps you come up with a problem/testable question to investigate in your project.
- **Problem/Testable Question**: the specific question you will investigate in your research. For example, "How do archaeologists date wood samples?"
- **Hypothesis or Thesis**: Write a thesis - a statement giving an original point of view based on your background research. Or, if you propose to challenge current thinking or analyse a subject in a new way write, write a hypothesis - what you predict the outcome of your research will be. Use the hypothesis/thesis to keep your research focused on a goal. A thesis can be written in many forms. For example: "Dendrochronology (tree ring dating) is combined with Carbon-14 dating to determine the actual calendar age of a tree." **OR** "Potassium/Argon dating will provide comparable results to Carbon-14 dating combined with dendrochronology."
- **Research:** To carry out extensive research on your subject, consult a wide variety of sources: books, internet, scientific journals, and interviews with experts in the field. If you uncover a controversy, it is important to explore and understand both sides of the issue.
- **Scientific Principles:** Make sure you understand and explain the underlying scientific principles of the subject/problem you are studying. Often a small demonstration of the underlying scientific principle or "Law" is valuable; you should also be able to explain the conditions for known departures from the scientific principles in question.
- **Concepts**: Explore the key points, problems and issues related to your subject matter. Ensure that your information is accurate and complete for your level of knowledge and understanding. Relevant graphs or tables from other workers' research may help to summarize your concepts. Remember to get permission to us other people's graphs, pictures etc., or at least to give the proper credits.
- **Results**: keep a complete record of research, research materials, and evolution of thought in a logbook.
- **Conclusion**: the final outcome of your investigation as supported by the research; relate your conclusion directly to your initial thesis/hypothesis.
- **What Next?** Discuss how you could take your research further, or what experiments you could undertake to support your conclusion. Include an explanation of why people would be interested in knowing your results and how they can be used.

# 2020 CALGARY YOUTH SCIENCE FAIR
# RULES and INSTRUCTIONS

MUST BE READ AND UNDERSTOOD BEFORE SIGNING THE ENTRY FORM

1. If your entry involves the study of live animals including humans or use of animal tissue you must fill out the *Ethics and Due Care Form* and send it in before beginning your project.
2. If your entry involves the use of human subjects, each person in your study must fill in and sign an *Informed Consent Form.* These forms should be kept in your Log Book.
2. Questions regarding any aspect of the fair should be directed to your *SCHOOL COORDINATOR.*
3. Entries are limited to *GRADE 5 & ABOVE.*
4. An individual may be involved in only one project.
5. Group projects may consist of only *TWO STUDENTS.*
6. *NO LIVE ANIMALS SHALL BE EXHIBITED* at the fair.
7. No project previously entered in Calgary Youth Science Fair may be re-entered unless it has been drastically modified.
8. Exhibits should be constructed so that valuable components can be removed for safekeeping when the exhibit is unsupervised. Every effort will be made to prevent damage to exhibits, however, the Society and/or its sponsors will not assume any responsibility for loss of or damage to any exhibit.
9. Continuous running water and/or natural gas will NOT be supplied.
10. Your project will be inspected for safety. You will receive a copy of our safety regulations. You and your parents must confirm that they have been seen, read, and understood by all of you, by signing the entry form.
11. The society reserves the right to disqualify, or expel from the fair, any project for which a breach of rules, safety regulations, plagiarism, or animal use guidelines has occurred.
12. ALL PROJECT BACKBOARDS MUST COMPLY WITH THE FOLLOWING SIZE RESTRICTIONS:

    Front to back - 76 cm (2.5 FEET)
    Side to side - 122 cm (4 FEET)
    Floor to top - 366 cm (including table) (12 FEET)

    Please be aware that there are two sizes of white commercial cardboard backboards available. The smaller size is the one you should use (60" by 96" when laid out flat)
13. All exhibitors must provide the necessary backdrop and side panels for their project as well as electrical extension cords, (one outlet only will be provided to those requesting electricity). ELECTRICITY WILL NOT BE SUPPLIED TO PROJECTS UNLESS IT IS ABSOLUTELY ESSENTIAL TO THE PROJECT (I.E., ELECTRICITY IS NOT TO BE USED JUST TO ENHANCE THE DISPLAY).
14. Every exhibit must be attended at all times during the Fair and entrants must provide adequate supervision during their absence. Seating for TWO persons only will be provided at each exhibit.
15. IT IS EXPECTED THAT ALL EXHIBITORS WILL BEHAVE APPROPRIATELY DURING THE FAIR. FAILURE TO DO SO MAY RESULT IN EXPULSION FROM THE FAIR.

# TOP TEN WAYS TO IMPROVE YOUR SCIENCE PROJECT FOR THE CALGARY YOUTH SCIENCE FAIR

**1) Read the Judging Form and use it as a guideline when preparing/revising your project.**

Judge Tips

- Get a copy of the elementary and/or secondary judging forms from our website (www.cysf.org) at the bottom of the **Project Tips** page (http://cysf.org/science-fair-project-tips.htm). Review them to see what the judges will be looking for when they come and evaluate your project and presentation.
- Evaluate your performance, or have a friend, teacher, or parent evaluate your performance while you do a practice project presentation. This will show you where you need to improve the most. Note: A perfect score is not a possible outcome of this evaluation!
- If your project is an experiment, it is important to understand responding (or dependent) versus controlled (or independent) variables. Responding or dependent variables are the things that change (they depend on the conditions at which you run the experiment). Controlled or independent variables do not change; you control them. It is not uncommon for experimenters to realize that what they thought would be a controlled variable is in fact a responding variable. This may make a change of procedure necessary to ensure that a controlled variable is, in fact, controlled. There should be a control sample that is not manipulated in the experiment to serve as a point of reference.
- Sample size should be big enough to ensure the results are valid. The exact sample size depends on the experiment. The experiment should be repeated a minimum of three times to get full marks for number of trials. Variations in results between trials should be thoroughly discussed.
- Summarize your results on graphs. There will likely be one graph that relates most to your hypothesis. This should be emphasized on your backboard and referred to in your presentation.

Creative ideas

**2) Be sure to include some new ideas/original thought/conclusions that you have come up with as a result of your experimenting, research or study.**

- For a project to score well at the science fair, whether it is experimental or non-experimental/research, it must demonstrate that you have done some creative thinking on your own.
- Original experiments, by definition, are creative because you have designed a procedure for testing your hypothesis, and when you have your results, you interpret them and come up with an explanation.

- It is a bit trickier to come up with a non-experimental/research project that includes some creative, new ideas. It is VERY IMPORTANT to include some original scientific ideas in your non-experimental/research project if it is going to be the best it can be for the science fair.
- **Here is an example of how you can make your non-experimental/research project more creative**. Let's say you love cats and you want to research cats. The easy way to do this project is to read some books about cats, do some research on the internet, and then report all of the facts that you learned about cats in your project. Although this is good, a better way to do a non-experimental/research project about cats would be to choose one aspect of cats, such as how fast they run (your question could be: What is the fastest cat in the world?), then choose 10 or 20 different cats from around the world, research how cats run and what the factors are that influence how fast a cat runs, find out how fast each different cat runs, determine which one runs the fastest, and then see if you can come up with your own idea about why the "winner" runs faster than all of the other cats in the world.
- Another creative approach to a non-experimental/research project is to get permission to use the experimental data collected by someone else and then do your own interpretation of the data.
- Non-experimental/research projects are more open ended, and often more difficult to judge than experimental projects. The more you know about your subject, the more you have thought about the relevance of your research, and the more you include your own ideas and interpretations in your project, the easier it will be for the judge to evaluate what you have done.
- You could present your findings in a new and creative way. This might involve the application of your new ideas or using a small experiment to show an aspect of your research project.

**3) Review your school fair judges' suggestions and make revisions, if appropriate, to strengthen your project, backboard, or presentation.**

- Every project can be improved.
- If your school judges did not indicate any areas for improvement, ask your teacher or science fair co-ordinator for suggestions.
- Make sure that your backboard is self-explanatory, yet contains all of the props that you will need for your presentation.
- The most common problem with backboards is that they contain too much information, in too small a type size. The backboard should not contain all of the text you would print in a written report. Rather, it should contain brief summaries of your concept/question, hypothesis, background, procedure, observations (including graphs), conclusions, and implications. The text should be printed in a large type size that is easy for the judges to read.

- Focus your backboard and your presentation on the portion of the subject matter that relates directly to your hypothesis.

**4) Practice making your presentation to your friends, parents, or other relatives so that you are confident on fair day.**

- You have from ten to fifteen minutes to make a great impression on a judge.
- The more you practice in advance, the better your presentation will be.
- Most judging teams report that student confidence and presentation quality improves as judging proceeds. Preparation and practise before the fair will increase your self-confidence and improve all of your presentations.

**5) Bring your logbook.**

- It is best to use a bound notebook for your logbook, although printouts of rough notes from a computer are also acceptable.
- Your logbook should be like a diary: it should include entries for every day you worked on your science fair project.
- Judges will know if your logbook is authentic. Creating a logbook after you have done your work is not good science and is not acceptable.
- The types of information to record in a logbook include: background research, hypothesis, procedure, data collection sheets, tables and graphs summarizing data, observations, conclusions, acknowledgements—in other words, everything a person needs to know to do your experiment the same way you did. In addition, conditions such as temperature, atmospheric pressure, and humidity can affect the results of many experiments. If you think they could affect your results between trials, or your overall result, record them in your logbook.
- Your immediate reactions and observations are important to help reconstruct what you actually did and to keep things clear in your mind. If you jump to a conclusion, write it down, but be prepared to reassess it and even change it, as you gain more knowledge and experience through experimenting.
- Remember to bring your logbook to the fair for the judges to review.

**6) Discuss your project with an "expert."**

- If you did not discuss your project with an expert before your school fair, make sure you do it before the city fair. The more you know about your subject, the more impressed the judges will be.
- An expert does not have to be a specialist in the exact field of your study. He or she may be a parent with a strong science background, a teacher with a keen interest in science, or a neighbour or family friend who works in the broad discipline of your study. An expert may suggest that you investigate related topics that you didn't think of yourself.

- We encourage parents to be involved in students' science fair projects, but students should do the work themselves where it is safe and practical to do so. Sometimes by looking at a project, judges think there may have been too much hands-on parental input. We encourage judges to have an open mind and not to pre-judge projects—the work of many students is truly amazing. Judges will use a student's depth of knowledge of the subject and intimate details of the experiment to assess whether there was too much parental involvement.

**7) Be curious and think about where your project fits into the "big picture."**

- To really impress the judges, demonstrate a thorough knowledge of your subject matter by relating your project to recent world events, the context or history of the experiment (if it is a classic experiment with a minor change), or how it might change life on earth in the next millennium.
- You can also impress the judges by talking about what industrial or academic research/experimentation is presently happening in your field in Canada, the USA, or other countries.
- How well you relate your project to the "big picture" really sticks in the judges' minds when they are discussing and marking your project later.

**8) Remember to relate your conclusions to your hypothesis.**

- Your hypothesis should provide the focus for all of the activities surrounding your project. This will help you to stay on topic.
- In an experimental project, your controlled and manipulated variables, procedures, observations, and graphs should all be related to your hypothesis.
- **For example**, when testing growth rates of sunflowers, a student predicts that plants receiving the most hours of light per day will grow fastest, the conclusion will relate to the hypothesis if it reads something like: "My experiment shows that sunflowers receiving the most hours of light per day grew the fastest. Sunflowers receiving 10 hours of sunlight per day grew twice as fast as those receiving only 5 hours of sunlight per day." If, using the same example, a student concludes that "The plant grown hydroponically grew the fastest," a judge will see immediately that the conclusion does not relate directly to the hypothesis and that the student likely manipulated more than one variable. In this example it would seem that in addition to testing how the number of daylight hours affects the growth rate in sunflowers, the student has also tested how the medium for growing sunflowers (hydroponics vs. no hydroponics) affects the growth rate. These two experiments should have been conducted separately and the results reported separately, and then contrasted. There would be two hypotheses presented and two conclusions. The hypotheses could have read, "The plants receiving the most hours of light will grow fastest." and "The plants grown hydroponically will grow fastest." And the

conclusions might have been: "The plants grown hydroponically grow faster than those grown using a traditional soil medium.", AND "The plants receiving the most hours of sunlight a day grow the fastest."

**9) Focus on your subject and on the judge to whom you are presenting.** Need

- You will make your presentation to at least three individual judges.
- Use good presentation skills when explaining your project to the judges. This results in good communication that will impress the judges and help them do a better job of evaluating your project.
- Be polite; introduce yourself and your partner (if appropriate). Speak with confidence—you are the expert on your project. Use a pointer. Don't fidget with the pointer or anything else.
- Try and use your backboard as a cue card for your presentation; a well-organized and clear backboard will provide the cues you need so you can more fully explain each aspect of your project in a logical order.
- There will be a lot of activity around your project area. Do not be distracted or act as if you would rather be somewhere else.

**10) Smile and relax.**

- We want you to have a fun, memorable day at the Calgary Youth Science Fair.

# SCIENCE FAIR ORAL PRESENTATIONS

## WHAT HAPPENS WHEN THE JUDGES ARRIVE ON FRIDAY MORNING?

- You will be judged at least three times on Friday morning.
- Each judge will spend from 20 to 30 minutes at your project.
- When judges come to your project, they will introduce themselves and then ask you (and your partner if you have one) to explain your project.
- A complete presentation includes the information on your backboard/tri-fold, your log book, and your oral presentation
- Your backboard should contain all information discussed in "Elements of an Experimental Project" or "Elements of a Non-experimental/Research Project" on the Project Tips page of our web site (http://cysf.org/science-fair-project-tips.htm).
- Your log book should contain all of the information described in "Science Fair Log Books" on the Project Tips page of our web site (http://cysf.org/science-fair-project-tips.html).

## ORAL PRESENTATION POINTERS

- If you worked on your project with a partner, then both of you will be responsible for preparing and giving your oral presentation, and for answering the judges' questions. It is up to you to figure out the best way of doing that, but usually taking turns is a good idea.
- Before the fair, prepare a five-to ten minute speech that is a summary of the information on your backboard/tri-fold; explain your project in simple terms so anyone can understand it. Start by introducing yourself, the title of your project and how you came up with your idea for the project. Then go through your project in the same order that your information is presented on your backboard/tri-fold and end with a discussion of the project's practical applications and what you might change if you were to do the experiment again. Emphasize how you were creative/unique/innovative with your project. Finally, ask the judge if he/she has any questions or feedback for you.
- Do your best to memorize your presentation, but also prepare cue cards with the main points of your presentation written on them to help you remember if you are a bit nervous and worried about forgetting. Remember to number your cards, in case you drop them!
- Then practise, practise, practise your presentation to your parents, friends, and teacher so you will be relaxed and confident by Friday morning when it's time to give your talk to the judges.

- On fair day, do not rush through your presentation. Speak clearly and slowly enough so that it is easy for the judges to understand you.
- Look straight into the eyes of your judges; make eye contact with them.
- Make good use of your board. Point to diagrams and graphs when you are discussing them.
- Stand in front of your project and move off to the side when showing the judge different aspects of your board (i.e., graphs, diagrams, photographs, model or display).
- Always be positive and enthusiastic! Show the judges you are interested in your research and they will be more likely to remember you.
- When answering judges' questions, be confident with your answers. You are the expert!
- Be serious about all the judges' questions, even i f they sometimes ask the same question several times. Remember this is the first time they are looking at your project and they want to learn all they can from you, the expert!
- If you do not understand what a judge is asking you, ask them to rephrase their question, to ask their question in a different way, or ask them to be more specific.
- If you still have no idea what the judge is asking, or do not know the answer to their question, it is okay to say "I don't know." You might also say: "I never thought of that before but I will look into it. That's very interesting." Then write it down in a notebook so they know you are serious about checking it out.

## THINGS TO AVOID DURING YOUR ORAL PRESENTATION

- Do not read directly from your backboard/tri-fold.
- Do not chew gum or eat food while presenting your project.
- Do not mumble.
- Do not fidget or wring your hands.
- Do not use slang or swear words.
- Don't say filler words "like" or "you know" or "um" if you can help it. Instead, pause for a moment if you need to collect your thoughts.
- Do not talk facing your backboard/tri-fold with your back to the judges.

CALGARY YOUTH SCIENCE FAIR

Entry No: _____ Location: _____

Project Title: _____

Student Name(s): _____

# Elementary Project – Judging Tally Sheet

***Please use the following scale:***

**5** Excellent
**4** Good
**3** Satisfactory
**2** Weak
**1** Poor
**0** Not Present

## 1. SCIENTIFIC CONTENT (maximum 50 marks)

***Complete* EITHER** *1A - Experimental Project* **OR** *1B – Non-Experimental Project.*
*Circle the score for each statement and note the subtotal on page 2.*

### 1A. EXPERIMENTAL PROJECT – an investigation undertaken to test a scientific hypothesis using experimentation, usually featuring the identification and control of variables.

PROBLEM/HYPOTHESIS

1. The problem/hypothesis was clearly stated ..... 0 1 2 3 4 5
2. Adequate background reading was evident in the presentation ..... 0 1 2 3 4 5

METHOD

3. Experimental design reflected understanding of the scientific method and underlying scientific principles..... 0 1 2 3 4 5
4. Controlled, manipulated and responding variables were identified and understood ..... 0 1 2 3 4 5
5. Repetition of tests (minimum three trials) and/or appropriate sample size were used to achieve reliable results.... 0 1 2 3 4 5
6. Logbook recorded the project progress including detailed procedures, results, and original data ..... 0 1 2 3 4 5

ANALYSIS/CONCLUSION

7. Observations were clearly summarized in tables/graphs and were consistent with data collected..... 0 1 2 3 4 5
8. Results were logically explained and understood ..... 0 1 2 3 4 5
9. Conclusions and summary remarks were based on experimental data and related to the problem/hypothesis..... 0 1 2 3 4 5
10. Possible sources of error were recognized ..... 0 1 2 3 4 5

**SECTION 1 SUBTOTAL / 50** _____

### 1 B. NON-EXPERIMENTAL PROJECT - the collection and analysis of data to reveal evidence of a fact or situation of scientific interest.

PROBLEM/HYPOTHESIS

1. The topic was clearly stated and provided direction and appropriate scope for the project ..... 0 1 2 3 4 5

METHOD

2. Evidence of extensive research including reading and contacting knowledgeable people was demonstrated ..... 0 1 2 3 4 5
3. The scientific information presented was accurate ..... 0 1 2 3 4 5
4. The information was effectively gathered, combined and organized..... 0 1 2 3 4 5
5. Logbook recorded project progress including detailed research notes, contact names and discussions ..... 0 1 2 3 4 5

ANALYSIS/CONCLUSION

6. Key points and concepts of the research topic were identified ..... 0 1 2 3 4 5
7. Problems or issues related to the subject were understood ..... 0 1 2 3 4 5
8. Critical analysis/interpretation of research material was presented ..... 0 1 2 3 4 5
9. A logical conclusion/summary based on the research was reached ..... 0 1 2 3 4 5
10. New ideas were formulated as a result of the research project ..... 0 1 2 3 4 5

**SECTION 1 SUBTOTAL / 50** _____

## 2. CREATIVITY AND INSIGHTS (maximum 25 marks)

*Complete this section for ALL projects.*
*Circle the score for each statement and note the subtotal at the bottom of the page.*

1. The project was imaginative and creative ..... 0 1 2 3 4 5
2. There was resourceful use of equipment/information gathered ..... 0 1 2 3 4 5
3. Creativity was shown in the interpretation of the data/information gathered (i.e. outliers noted, unexplained findings examined) ..... 0 1 2 3 4 5
4. Thought was given to how the project could be improved or done differently..... 0 1 2 3 4 5
5. Future spin-offs or potential applications of the project were identified ..... 0 1 2 3 4 5

**SUBTOTAL / 25** _____

## 3. COMMUNICATION (maximum 20 marks)

*Complete this section for ALL projects.*
*Circle the score for each statement and note the subtotal at the bottom of the page.*

1. The oral presentation was clear, concise and logical ..... 0 1 2 3 4 5
2. Questions were answered competently and accurately ..... 0 1 2 3 4 5
3. Outside sources were properly credited and a bibliography was properly cited ..... 0 1 2 3 4 5
4. The display board effectively presented the project ..... 0 1 2 3 4 5

**SUBTOTAL / 20** _____

## 4. DEGREE OF DIFFICULTY (maximum 5 marks)

*Complete this section for ALL projects.*
*Circle the score for each statement and note the subtotal at the bottom of the page.*

1. The degree of difficulty of this project was exceptional ..... 0 1 2 3 4 5

**SUBTOTAL / 5** _____

## SUMMARY OF MARKS

1. SCIENTIFIC CONTENT (**50**) ..... _____
2. CREATIVITY AND INSIGHT (**25**) ..... _____
3. COMMUNICATION (**20**) ..... _____
4. DEGREE OF DIFFICULTY (**5**)..... _____

**TOTAL / 100** _____

# Scientific Method

## 1. Problem/Question

**-determine what you would like to find out.**

**-every part of the experiment is done to answer your question.**

***Problem/Question:***

Does mold in the house affect your health and can it cause any diseases?

## 2. Hypothesis/Prediction

**-use previous knowledge and/or experiences to predict what a *reasonable* answer to the question might be.**
**-start your hypothesis with "If..." "then..." "because..."This allows for a complete thought.**
**Always explain why you think something is the way it is.**

***Hypothesis/Prediction:***

We think mold carries diseases and can affect your health, and it could become dangerous for the people living there.

## 3. Apparatus/Materials

**-what is being used to perform the experiment.**
**-be as specific as possible to ensure accuracy when doing the experiment.**

## ***Apparatus/Materials:***

Computers, internet, websites, books, parental advice, our minds

- Visited websites
  - Cleveland Clinic
  - New York Health Government
  - The Sprouse.com
  - toms guide.com
  - Alberta Health

So sorry for the
stain Mr. Zach
I put it on my table
while eating. from Jared

P.S. its probably oil

# My Science Top 3

Doing a science fair project is only going to be your best work when you are presenting a topic that is interesting and meaningful to you. Don't just pick any topic. You'll never fully enjoy what you're learning if you don't have some personal connection to it.

Maybe you know a lot about a topic and would like to show others what you know. Maybe you are curious about something, and you want to find out more information about it. Either way, if you are working on something you like, you'll always put forth your best effort.

In the spaces below, come up with your Science Top 3. What are three things about the scientific world you would like to learn about? What do you want to present to others? What are you the most curious about? Work on this alone and not with a partner or friend. It's important that you share what YOU want to learn about.

1. How food molds and which ~~food~~ mold the fastest?

2. How to test if water is clean and if you could drink it?

3. Why is candy so tempting to eat all the time?

**Your Science Top 3 is due Wednesday, November 13th, 2024**. You will not be permitted to continue with the next step in the science fair unless your Science Top 3 is complete. If you need any help with ideas, just ask Mr. Zaccagnini. Please have your parents sign below once your list is complete and return this form to Mr. Zaccagnini.

| Amelia F.S. | 5D | |
|---|---|---|
| Student Name | Homeroom | Parent Signature |

# Science Fair Tips, Ideas, Titles, Speech, Formal plan and ~~Base~~ Base / Structure of research project

Sunday, Dec 29th 2024
PS 12:33 AM

## IDEAS

TO: Sandra / Janet
From: Janet

1 ~~How about we put a paragraph for it and~~

What if we do our research, like all of the research then we split it into 2 different ideas.

2 The ~~first~~ idea will be about all the main house molds their names and where/where you can find this ~~mold~~ in your house

3 The second idea will be about what can happen if you consume mold or even breath its air around it.

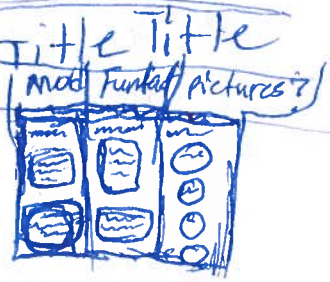
~~We will split this into~~

Final We will split these two ideas into 2 seperate paragraphs.

sorry its a little messy !!

## Structure

1 There are three different spaces on the tri fold because tri is for three.




2 It will look like this
Although it will look different, more folded.

We will have one of the rectangles about "The most common house Mold" ~~information~~

3 one about "Fun Facts" and one about anthing of your choice, Remember we are partners so we work together. Although I think the last one should be pictures of the most ~~unknown~~ common house molds with labels like in the ~~first~~ rectangle. The title will be on all 3 cross rectangles

Final

## Speach plans

We are going to introduce our project and say our title, When we are doing the beging of our presentation I will do the most common house molds because I did the research on that one, You can do the last unless you want to switch

Tip the Drop

# Speech plan continued

We have to Make a perswasive point in our statements

We have to memorize what we are going to say or just freestyle based on the topic

Be confident in your speech and if and mistakes or you can't pronounce a word just go with the flow if you can

## Titles

1. Mold to go please
2. Mold has its ways
3. Mold in the house
4. Magnificent Mold
5. Mold, Mold, Mold
6. Why Mold, just why
7. Mold you are terrific
8. Dont mess with mold
9. Mold is in our houses
10. Be as magnificent as mold
11. Mold is cool
12. Mold rocks but be careful
13. Be a fungi and love mold
14. Mold can be bad
15. Disgusting, nausea eating gross this is Mold
16. Stay clean so that mold wont attack
17. Mold is amazing
18. Mold is just so fascinating

Monday, January 13, 2025

Dear Parents/Guardians,

We would like to communicate some important information about the St. Josephine Bakhita Science Fair with you. Please read the following information carefully:

1. Our St. Josephine Bakhita Science Fair will be held on Tuesday, February 25, 2025. More information will be coming.

2. As part of preparation for the school science fair, we are offering dates for after-school help so that your child can stay after school and work on his/her project or ask questions. These are ***optional*** and your child can attend as many as he/she needs to. ***Sessions run from 3:15-4:00***, and the following date are being offered for extra help:

    - Wednesday, January 15
    - Tuesday, January 21
    - Wednesday, January 22
    - Monday, January 27
    - Wednesday, January 29
    - Monday, February 3
    - Wednesday, February 5
    - Monday, February 10
    - Wednesday, February 19
    - Thursday, February 20

    *****PLEASE NOTE THAT THESE DATES MAY BE MODIFIED DUE TO LAST MINUTE CHANGES IN TEACHER AVAILABILITY. CHANGES WILL BE COMMUNICATED AS BEST AS POSSIBLE.***

3. Trifolds for your child's project have been ordered and should arrive soon. Your child will be notified of their arrival and how to bring them home. Parents are strongly encouraged to pick up their child's trifold once they arrive.

If you have any questions about the science fair, please do not hesitate to contact me at the school.

Regards,

Mr. Zaccagnini

Science Fair Coordinator

6:00 pm Weds. Dec. 4th 2024

Website's about mold.

Web - MEDICAL NEWS TODAY; Mold in the house and how it can cause health problems.

Web - Breathing Problems caused by mold

Web - Rainbow Restoration.

Web - Food Network

Question: Is mold at home a problem?

- Different kinds of molds can grow in anybodys house
- Mold can grow on clothes, walls, books, toys, and more
- Most importantly mold can cause health problems If it's a damp cold Winter or a warm, humid Summer, doing home activities can cause moister and mold
- Dampness indoors courses asthma and other upper and lower respiratory problems
- Symptoms caused by mold can damage our health Severe coughing, chest lightness, and shortened breathing
- The most common indor molds are Alternaria, Penicillium Cladosporium (black coloured mold), Stachybotrys chartarum (black mold)
- Stachybotrys chartarum: A black mold with a slimey texture that thrives in high humidity and dampness It's known for causing respiratory issues and fatigue.
- Alternaria: A dark green or brown wooly mold commonly found in damp spaces like showers or laundry rooms. It can trigger allergies and asthma.
- Cladosporium: An olive green or black mold with a velvety texture, often found on old fabrics or wood. It will end up to respiritory problems and rashes.

6:00pm Words. Dec. 4th 2024

Penicillium: An blue or green mold with a velvety texture that spreds on spoiled food and walls. It's known for causing allergies and respitory conditions.

Words and their meanings

Respitory: Refering to affecting respiration

Respiration: Usually refering to the action of breathing

Fatigue: extreme tiredness resulting in physical illness

- Some molds have poisonous toxins that can make you extremly sick

mon

11:02pm Sunday Dec. 8 2024

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Name Ideas for our research project

1. Mold The Magnificent!
2. Terrific Mold!
3. Mold and Mold and More Mold! Like
4. Stachybotrys chartarum, Alternaria, Cladosporium and Penicillium. (The most common molds.)
5. Life With Mold
6. Major Illnesses of Mold
7. Mold In Our Houses
8. Mold and Their Strange Ways
9. Mold on and In The House
   - on → bold
   - In → Bold
10. Super-Duper Mold
11. The Ways Of Mold
12. Mold The Spectacular
13. Mold Just Has It's Ways
14. Nasty, Yucky, Disturbing Mold
15. Oh Mold You're Just So Nauseating! Like
16. Oh Boy Here Comes Mold!

Sun. Dec. 8 11:02pm

lucky

Tues. Dec. 8:00pm 2024

# Effects on people

If someone in your family begins to show signs of an allergic reaction - sneezing, coughing, rashes - that won't go away, consult with your physician as it could be because of mold. Some effects could be:

- Nasal and sinus congestion.
- Eye irritation, such as itchy, red, watery eyes.
- Wheezing and difficulty breathing.
- Cough.
- Throat irritation.
- Skin irritation, such as a rash.
- Headache.

Ame's

# Most common types of mold

**Stachybotrys Chartarum**

A black mold that has a slimy texture. It strives in high humidity and dampness.
It's also known for causing respiratory issues and fatigue. Stachybotrys is very toxic.

**Alternaria**

A dark green or brown furry mold most found in damp places. It can trigger bad allergies and asthma. Alternaria is not toxic.

**Cladosporium**

An olive green or dark black mold with a velvety texture often found on old fabric or wood. This can trigger respiratory problems and rashes. Cladosporium is not toxic.

**Penicillium**

A blue and green mold with a velvety texture that spreads on spoiled foods and walls. It causes allergies and respiratory issues. Penicillium is toxic.

# Observations

- Musty Odor
- Visible discoloration or staining
- Size determines the severity of the problem
- Damp Walls, Upholstery, Floor, or Cabinetry
- Moisture Condensation
- Taste
- Allergic reactions and rashes to human

Amelia Janet

**Problem/Question:**

Does mold in the house affect your health and can it cause any diseases?

**Hypothesis:**

We think mold carries diseases and can affect your health, and it could become dangerous for the people living there.

Janet's

Amelia

# SCIENTIFIC METHOD

BE ***BOLD*** WITH ***M●LD***

**Material:**

- Computers, internet, websites, books, parental advice, our minds
  - Visited websites:
    - Cleveland clinic website
    - New York Health Government website
    - The sprouce.com
    - tomsguide.com
    - Alberta Health website

Comunication

Photos, infographics, definitions

Based on our research and observations, our hypothesis was confirmed. As illustrated in the chart from Cleveland Clinic, mold can cause irritated eyes, allergies, severe rashes, and other health issues. Also, the severity of the problem depends on the size of the mold infestation. If the mold covers a larger area, it is crucial to contact a professional for proper removal and repair.

# How to prevent mold?

- Repair any leaks to stop the mold from growing back.
- Keep areas which see a lot of moisture well-ventilated by opening doors and windows. Condensation can easily lead to mold.
- Invest in one of the best dehumidifiers to help keep the moisture levels down.
- Clean out and repair any gutters.
- If you're planning to apply a fresh coat of paint, add mold inhibitors to the paint to avoid it in the future.

BE ***BOLD*** WITH ***M●LD***

# When do I need professional help?

**When do I need professional help for mold?**

Depending on the type of building, the size of the area, or how long it takes, you may need professional help to clean and remove mould.

**1. Less than 1 square foot of mould that is close together (contiguous):**

You or regular cleaning staff can easily clean these areas by scrubbing surfaces clean with soap and water. It's a good idea to wear personal protective equipment (PPE, such as a face mask). Wash your hands as soon as you're done the work.

**2. Between 1 and 10 square feet of mould that is close together (contiguous):**

You or regular cleaning staff can easily clean these areas by scrubbing surfaces clean with soap and water. People doing the work should be trained on clean-up methods, personal protection, and possible health hazards. Personal protective equipment (PPE) should include a disposal N95 respirator and disposable gloves.
Babies younger than 12 months old and people with weakened immune systems, long-term lung problems, or allergies should stay out of the area. Seal door openings, ventilation system openings (like vents and grills), and other openings that let air move.

https://myhealth.alberta.ca/alberta/Pages/mouldy-homes-buildings-managing-indoor-mould.aspx

Peeling paint or wallpaper

Peeling caulk or grout

Visible mold growth

Condensation on windows or pipes

| Day 6 | | Materials |
|---|---|---|
| 8:30-8:40 | Entrance | |
| 8:40-10:25 | Morning Tubs<br>Morning Meeting<br><br>ELA<br>UFLI: Lesson 84: Phonemic awareness, visual drill, auditory drill, blending drill, new concept<br><br>Daily 5: Listen to Reading, Read to Self, Read to Someone, Word Work, Work on Writing<br><br>Reading: Inferring a Moral<br>• Read aloud: Chicken Little<br>• Discuss: what is the moral of the story? why? | Manip bins<br>Meeting Slides<br><br>UFLI Manual<br>UFLI Slides<br><br>Books, reading tools, iPads, journals<br><br>Book Chicken Little |
| 10:25-10:40 | Wellness: Recess<br>Supervision: Field | |
| 10:40-10:55 | Wellness: Snack | |
| 10:55-11:35 | Math: Addition & Subtraction<br>• Stretch: Meeting, esti-mystery<br>• Double-digit addition regrouping & no regrouping assessment | Meeting Slides |
| 11:35-12:10 | Math: continue | |
| 12:10-12:45 | Religion: Unit 4<br>• Good deed leaves<br>• Read big book 2 pg. 4-9<br>• Discuss: how is Jesus' time in wilderness similar to Lent?<br>• Colour Lenten countdown<br>• Finish Pillars of Lent poster | Big Book 2<br>Lenten Countdown |
| 12:45-1:05 | Wellness: Lunch | |
| 1:05-1:25 | Wellness: Recess | |
| 1:25-2:00 | Quiet Time<br>Agenda<br>Silent Reading<br><br>Science: Matter<br>• Continue working on Egg drop project | Matter google slides |
| 2:00-2:35 | Science: continue | |
| 2:35-3:10 | Library | Book bin |