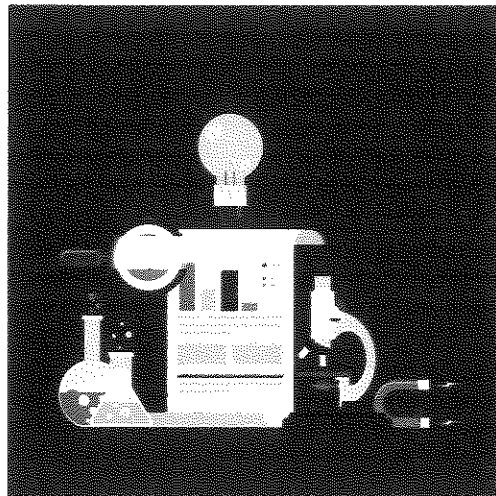




**Evangelical School**  
**Science Fair Handbook**  
Information and Registration



# **Hello Evangelical School Students and Parents!**

The annual Evangelical School Science Fair is coming soon! The Science Fair is a wonderful opportunity for your child to experience, discover, and have fun with the exciting worlds of science, technology, engineering & math. It allows our Evangelical School Scientists to demonstrate their interests with their teachers, parents, principal, and fellow students!

The following Science Fair Program Overview & Registration provides all necessary information including: guidelines for participation, an example science project, available resources, and how to register (with the registration deadline of Wednesday, February 9, 2022). Should you have any questions that are not answered here, please feel free to email your questions to:

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## **Contents**

Science Fair Overview.....	3
Science Fair Questions and Answers.....	4
Scientific Inquiry (How do Scientists figure things out?) .....	5
Science Fair Project Draft .....	6
Sample Scientific Investigation .....	7
Charting Data / Results .....	8
Sample Science Fair Display Board .....	9
Internet Resources .....	10
Registration .....	11

## **Science Fair Important Information**

**DATE:** projects due Wednesday, March 9, 2022

**TIME & PLACE:** judging will take place during the school day on Thursday and Friday. Viewing will take place during Parent/Teacher conferences Thursday night and Friday morning.

**REGISTRATION:** Deadline for registration is Wednesday, February 9 Registration Form is on pg. 11

**WEB LINK:** This packet of information will also be posted on the Evangelical School website at <https://evangelical-school.org/resources/>

- The Science Fair is open to all students and is voluntary.
- Every child is encouraged to participate – it's a lot of fun!
- The Science Fair is not a competition – there are no awards. Every student will receive a Certificate of Achievement and a ribbon.
- Students can participate as individuals or on teams (2 students per team is preferred, a maximum of 3 students will be allowed). Teammates do not need to be in the same class or grade.
- Parents, please provide a tri-fold display board for each project

Please consider allowing your child to do a project. Science is all about asking questions, and no one asks better questions than an elementary school child!

If your child is having difficulty selecting a topic, take a look at some of the suggested websites listed on page 10 of this packet. Have your child select a project that is both interesting to them and that allows your child to be an active participant. There's science in just about everything we do.

## **Important Ground Rules for Science Projects**

- No Hazardous Chemicals
- No Animals
- Nothing that needs an electrical outlet. (You may bring a battery pack.)
- Keep it simple and inexpensive by using donations, recyclables, and items from home.
- Food can be used as part of the experiment, but giving out samples of food items is not allowed (due to allergies).

## **SCIENCE FAIR QUESTIONS AND ANSWERS**

### **WHY PARTICIPATE IN THE SCIENCE FAIR?**

It's fun to discover! This is your chance to learn more about something that interests you. You'll have fun doing it too! You will also learn from the projects of the other students.

### **CAN I DO A PROJECT WITH A PARTNER?**

Yes. A partner can be great! Your partner does not need to be from the same class or grade. They can even be your siblings! If you want a partner, but do not know who is available, let your teacher know and she/he can help you. Remember, teams of 1 or 2 are preferred, maximum number of 3 students per team.

### **HOW DO I PICK MY TOPIC?**

Pick any science, technology, engineering or math topic that interests you. Maybe there is something you learned in school that you want to know more about? Maybe there is something that hasn't been taught at school that you are curious about? Talk to your family, your teacher, or even the science fair committee members. There are lots of great topics; you just have to find one! The internet is also a great resource (an internet resource guide is provided on page 10 for you to review with an adult).

### **HOW DO I KNOW MY TOPIC IS OKAY?**

Almost any topic is great! If you're not sure, talk to your teacher or send us an e-mail: ([mbaalman@evangelical-school.org](mailto:mbaalman@evangelical-school.org)) or ([dfuller@evangelical-school.org](mailto:dfuller@evangelical-school.org)) or ([mmcrae@evangelical-school.org](mailto:mmcrae@evangelical-school.org)) . Remember that you cannot bring anything to the school that is against school rules (please see page 3 for guidelines). Valuable things could get broken or lost. Dangerous things cannot be on display where other kids could handle them.

### **CAN I BRING AN ANIMAL TO THE SCIENCE FAIR?**

No! No animals are allowed at school. If your project involves an animal, please take pictures and mount those on your display board.

### **WHAT'S SCIENTIFIC INQUIRY AND DO I HAVE TO USE IT?** Think of Scientific Inquiry as

your helper. It can help you start and complete your project. It's a guide to help you solve mysteries or to answer questions.

## **SCIENTIFIC INQUIRY (How do Scientists figure things out?)**

Scientific Inquiry is the way to make sure you explore your question thoroughly.

The cool thing about science is that when you ask a question, that question can take you to really interesting places. You could discover something new!

### **1. ASK A QUESTION or THINK OF A PROBLEM**

Phrase your topic as a question using all the things you are testing.

### **2. MAKE A PREDICTION or THINK OF A SOLUTION**

Form a hypothesis and make a prediction. What do you think will happen?

### **3. GATHER MATERIALS**

What materials will you need to answer your question or solve your problem? Make a list of everything you will use. Don't forget the tools you will use for measuring.

### **4. PLAN A PROCEDURE or TEST YOUR SOLUTION**

What steps will you take to answer your question? Write this out. It is like a recipe for your experiment. \*See the example on pages 7-8!\*

### **5. GATHER DATA AND RECORD RESULTS**

What happened? Write down your data and your results. You can even have a demonstration. Photographs will also really add to your project.

### **6. CONCLUSIONS**

What happened in the experiment? Was your hypothesis supported or not supported? Did you solve the problem? What might you look at next?  
List all data from smallest to largest.

## Science Fair Project Draft

Use this as a sample draft for your Science Fair Project. Clearly label all the information on your display board.

Title: \_\_\_\_\_

Question or Problem: \_\_\_\_\_

\_\_\_\_\_

Hypothesis or possible solution: \_\_\_\_\_

\_\_\_\_\_

Materials needed: \_\_\_\_\_

\_\_\_\_\_

Diagram of setup (include labels):

Procedure (step by step): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Data/Results: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Conclusion: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## **SAMPLE SCIENTIFIC INVESTIGATION:**

**Question:** Will a plant grow taller in clay soil or in sandy soil?

**Hypothesis:** I think the plant will grow taller in clay soil.

**Materials:** (a numbered list)

1. 2 plant pots
2. 4 Wisconsin fast growing seeds
3. 2 cups of sandy soil
4. 2 cups of clay soil
5. measuring cup
6. measuring spoon
7. ruler
8. watering can

**Diagram:**

**Procedure:** (numbered steps)

1. Place 2 cups of sandy soil into a pot.
2. Plant 2 Wisconsin fast growing plant seeds in sandy soil 5 cm deep.
3. Repeat steps 1 and 2 with clay soil.
4. Place pots on sunny windowsill.
5. Water plants with 5 tablespoons of water at the same time each day.
6. Measure height of plants each day in centimeters and record on data sheet.
7. Repeat steps 5 and 6 every day for 2 weeks.

**Data/Results:** (This can be a table, graph, pictures, etc. of what you observed or what happened.)

Date:	Clay soil plant height in cm	Sandy soil plant height in cm
2/1/19	0	0
2/2/19	0	0
2/3/19	2	1
2/4/19	3	2
2/5/19	3	3
2/6/19	5	5
2/7/19	6	5
2/8/19	7	6
2/9/19	8	6
2/10/19	10	7
2/11/19	12	8
2/12/19	14	8
2/13/19	15	9
2/14/19	17	10

**Conclusion:** (Answer the question. Explain the data. Put the numbers into words.)

My hypothesis was supported. The plant grew taller in the clay soil than in the sandy soil. The plant in the sandy soil only grew 10 cm by the 14<sup>th</sup> day and the plant in the clay soil grew 17 cm by the 14<sup>th</sup> day. The clay soil plant grew 7 cm taller than the sandy soil plant.



# SAMPLE SCIENCE FAIR DISPLAY BOARD

Think about the display board as a commercial for your project. This is how you show off your hard work! If you want to create a new way to display go ahead. **Be creative!**



## Suggestion for Display Board

<p><u>Question</u> What do I want to know?</p>	<p><u>Project Title</u></p> <p>My Name                      My Grade    My Teacher</p> <p>Use this middle panel to show what happened in detail:</p> <p>You can use text (words) to explain your procedure, materials, and observations.</p> <p>You can also use drawings, photos, data tables, and graphs. (This will add color and interest to your display.)</p> <p>Add anything that shows what you did and conveys your results</p>	<p><u>Variables</u> What's changing? What's staying the same?</p>
<p><u>Prediction</u> What do I think will happen? Why?</p>		<p><u>Gather Data and Record Results</u> What happened?</p>
<p><u>Materials</u> What materials did I use?</p>		<p><u>Conclusions (Inferences)</u> Why did this happen?</p>
<p><u>Procedure</u> How did I go about answering my question?</p>		<p><u>New Questions</u> What do I want to know next?</p>

Use the space in front of your board for your "hands-on" display (not every project will have one). People will probably touch your stuff, so think about what you want to share.

# INTERNET RESOURCES

## Suggested Internet Resources

This is a sample of resources available on the Internet to help you with your science fair project. You can find more links on these websites. Check these out with a parent.

<https://www.sciencebuddies.org>

<https://www.sciencefaircentral.com>

<http://www.sciencebob.com/sciencefair/resources.php>

<http://www.all-science-fair-projects.com/>

<https://www.internet4classrooms.com/sciencefair.htm>

<http://www.juliantrubin.com/fairprojects.html>

<http://scienceprojectideasforkids.com/>

<https://www.education.com/science-fair/fourth-grade/>

<https://www.education.com/science-fair/>

<https://www.education.com/science-fair/engineering/>

<https://www.thoughtco.com/great-science-fair-ideas-609054>

# REGISTRATION FORM

**Yes! I wish to participate in the 2022 Evangelical Science Fair  
March 9, 2022 through March 11, 2022**

**Student Name:** \_\_\_\_\_

**Teacher:** \_\_\_\_\_ **Grade:** \_\_\_\_\_

**Science project topic (circle one):**

Earth/Space Science      Chemistry  
Consumer/Health Science      Life Science      Physical  
Science      Other

**Parent Name:** \_\_\_\_\_

**Parent E-mail Address:** \_\_\_\_\_

**Parent Phone Number:** \_\_\_\_\_

**Parent Signature:** \_\_\_\_\_

Please return form to your teacher by **Wednesday, February 9, 2022.**

If you have any questions or comments, please contact:

Maria Baalman [mbaalman@evangelical-school.org](mailto:mbaalman@evangelical-school.org)  
Don Fuller [dfuller@evangelical-school.org](mailto:dfuller@evangelical-school.org)  
Marissa McRae [mmcrae@evangelical-school.org](mailto:mmcrae@evangelical-school.org)