

West Covina Christian School

Science Fair

7th Grade

Information Packet

Checkpoints:

1. Friday, January 29th: Bring in your 3 Science Fair Questions
2. Tuesday, February 16th: Bring in your Science Fair Proposal
(Students with teacher-approved proposals may begin their projects)
3. Thursday, March 4th: Update #1 due
4. Friday, March 26th: Update #2 due
5. Tuesday, April 27th: Bring finished project to school

Science Fair:

Thursday, April 29th @ Open House in their homerooms.

Taking Your Projects Home:

Projects should be taken home on Friday, April 30th.

Project Requirements:

The student's project needs to be experimental. A project is experimental if it meets the following criteria:

- A) A hypothesis is posed (a statement, not a question)
- B) A student experiment is conducted, using the scientific method
- C) Data/records are collected and analyzed
- D) The solution to a problem is sought

Projects are to be done on an individual basis. No team projects permitted. Students may seek help from an adult or another student with typing, backboard construction, and critique of methods. Backboard design/layout must be the student's own work. Students must do 90 percent of the total work. All help must be acknowledged in written form.

Display Board Criteria:

1. Maximum size may not exceed 48" wide by 30" deep by 72" high

2. Display Board

Should be free-standing for table display

Should be attractive, creative, eye-catching, neat and informative

Computer-generated graphics and lettering must be the student's work

Student's name, grade and school name must be placed on the back of the project in the lower right-hand corner

3. Display/Project Information

A) Topic

A good project is one that is chosen to fit your interests and abilities, so the time you spend selecting a topic is very important for your future success. **You will be working with this project for a long time.**

Do not choose a topic that you will be unable to do, or a topic that requires equipment that is too costly to obtain. Stay within your abilities and means. Sometimes, equipment can be borrowed from a teacher or a friend, but you should check before choosing your topic.

Be sure that topics encompassing sensitive issues are dealt with from an appropriate Christian perspective, and avoid any topic that may be offensive.

B) Title

Make it a short, yet descriptive, conveying specific information about your project.

C) Problem/Question

State the problem in one sentence. It is the question you set out to answer. It should be in the form of a question.

D) Background Information

Include any background information that you have researched on this topic. What have other people learned about the topic you are testing? Define terms that most people will not understand in your project.

E) Hypothesis

The hypothesis should be in the form of an "If, then" statement. This is your prediction on what you believe will happen in your experiment. This should be written out after you have done careful research into any background information related to your topic.

F) Abstract (approx. 50 words)

An abstract is a summary and description of what was done and what happened as a result.

Example: "Three brands of tennis balls were tested to determine which one retained its bounce over the longest period of time. The balls were regularly bounced over a five-week period. Of the three brands tested, Brand A, Brand B, and Brand C, Brand B retained its bounce best."

G) Experimental Design

Includes all the steps you will take to complete the experiment. Be specific with your steps. Number them. Include a drawing, diagram, or photo of the project.

H) Data

Your data should be comprehensive. This would include all observations of your experiment, both qualitative and quantitative, as needed. They could be in the form of charts, tables, graphs, lists, drawings, etc.

I) Results

This section should be an abbreviated representation of your data. This could also be in the form of a chart (pie), graph, table, etc.

Include a written explanation of your results, pointing out comparisons or trends.

J) Conclusion

Specifically state whether the hypothesis is correct or incorrect and your reason why it was this way.

State what further experimentation could be done to broaden the scope of the problem or ways to improve upon your experiment.

K) Written Report

Each exhibit must include a detailed report, fully footnoted and with a bibliography (at least 3 sources). This report should provide details of literary research done on the hypothesis. The written report must include the biblical application/illustration that also appears on the display. The report must be typed, with a minimum of 500 words.

$\frac{1}{2}$ page Introduction/Background Information

What is the question you are trying to answer?

Why did you choose this topic?

What background research was done?

$\frac{3}{4}$ page Body (Explain what you did and what happened)

$\frac{1}{2}$ page Conclusion

$\frac{1}{2}$ page Biblical Application

*At the end of your report, give acknowledgement to those who helped you at any point in the experimental process.

L) Logbook/Journal

The logbook is the history and the record of the progression of your science project. It begins the first day you receive the assignment and ends the day you turn it in. It is a diary for your science project. Every time you work on the project, you need to record your work in your logbook.

When your experimentation begins, you will refine your procedure in detail and write it out in your logbook, step-by-step, drawing and labeling any apparatus you use and explaining how all the variables are controlled.

Your data is first taken in your logbook. Your results are first formulated here.

Everything you do on your project is in your logbook!

Remember: From start to finish, everything must be in your logbook. Keep the book neat and clean. It will be displayed with your project.

M) Examples/Equipment

Equipment, samples, or other items from your experiment may be included as a part of your display.

N) Biblical Application/Illustration

Each project must include a related biblical application/illustration, and it must be included on the visual display and the written report.

What truth from God's Word does your experiment help show?

What lesson can be drawn from your experiment?

Is there an analogy?

O) Photographs and/or Diagrams

Should be included in the logbook or on the display to demonstrate the experimental process.