April 14, 2021 | Volume 23, Issue 27

The Halo Report

Saint Augustine Catholic School

1421 V Street NW, Washington, DC 20009

Theme 2020-2021:
"TRUST IN THE LORD WITH ALL YOUR HEART"- PROVERBS 3:5

Greetings Parents/Guardians

Welcome back!! We hope that all of you had a wonderful and joyful Easter break spent with family and friends. We are getting close to the end of the school year, so let us continue the school year in high spirits and support our students as they will continue on their path of learning and development.

Fourth Quarter Deficiency Reports:

Fourth Quarter Deficiency Reports will be mailed home, May 5, 2021. Students should remember to turn-in all of their assignments including their Easter Break Packets.

Science Fair

Our Annual Science Fair will take place in May 25, 2021. The Science Fair will be in person and held in the Saint Augustine Room. Please be sure your child(ren) completes the attach Science Fair and Project Schedule on time . For our students in fourth and eighth grade students this Science Fair Projects is mandatory and failure to complete a project may result in a failing science grade. For our students pre-kindergarten three to third grade this project is optional and we welcome all to submit this project.

First Communion

We are happy to report that the practice for first communion Saturday May 1 2021 at 10:00am. The sacrament of First Communion Service will take place on Sunday May 2, 2021.

Faith Knowledge Assessment

Our third through eighth grade students will complete the Faith Knowledge Assessment the week of April 19, 2021. See the attached schedule.

Student Uniform Guidelines

- Parents please carefully look over your child(ren)'s uniform and grooming especially earrings and hair length for boys. (Please see pages 43-44 of the student handbook.)
- Please make sure your child(ren) are in correct and complete uniform with proper footwear (no snow boots)

4/14
Easter Break Assignments Collected

4/19
Faith Knowledge Assessment Window Opens

4/23
Faith Knowledge Assessment Window Closes

4/24
First Penance

4/27
Eighth Grade Parent Meeting 6:00pm

4/28
School Mass 8:15am

5/2
First Communion

5/5
First Quarter Deficiency Notes Sent Home and Mailed

Eighth Grade Class Update

- The Eighth Grade Graduation picture are available for pickup. Please discuss Ms. Ross her availability for picture pickup.
- The Eighth Grade Parent Meeting has been rescheduled until April 27th.
- Please inform Ms. Ross about your child's high school Acceptances and final high school choice as soon as possible.

2021 Annual Spelling Bee

We happy to report that 6th grader, Nalleti Otieno, will be representing Saint Augustine Catholic School and Washington DC in the Scripps National Spelling Bee

Congratulations: District of Columbia's 39th Spelling Bee

Nalleti Otieno!

Champion!

UPDATE FROM AFTERCARE:

Please remember, if in person activities are at capacity you will have the opportunity to participate virtually. All sports except for fencing are suspended until further notice. All Inquires should include, the students full name, and grade. If you should email please reference "Saint Augustine" in the subject line. Any comments or concerns please contact the Aftercare and Activity Director, Mr. Stanley Travers, stravers@saintaugustine-dc.org,
If you have any questions or concerns, please contact the main office.
Sincerely,

Mr. Raven A. Wilkins
Principal

Student Science Project Schedule

Assignment	To Do or Read Readings are in the Project Guide at www.sciencebuddies.org	Hand In	Due Date
Ask a question. Part I: Find a project idea.	• Complete the Topic Selection Wizard (www.sciencebuddies.org). • Read "The Scientific Method."	Print Topic Selection Wizard results or write down your project question.	04/12/2021 final
Part II: Do project proposal.	• Read "Your Question."	Do the **Science Project Proposal Form**.	04/12/2021
Do background research. Part I: Collect information.	• Read "Background Research Plan." • Read "Finding Information." • Read "Bibliography." • Read "MLA Format Examples" or "APA Format Examples" as directed by your teacher.	1. Complete the **Background Research Plan Worksheet**. 2. Complete the **Bibliography Worksheet**.	04/14/2021
Part II: Write your research paper.	• Read "Research Paper."	1. Write your research paper. 2. Complete the **Research Paper Checklist**.	04/16/2021
Construct a hypothesis.	• Read "Variables" or "Variables for Beginners" as directed by your teacher. • Read "Hypothesis."	Complete the **Variables & Hypothesis Worksheet**.	04/19/2021
Test your hypothesis by doing an experiment. Part I: Design an experimental procedure.	• Read "Experimental Procedure." • Read "Materials List."	1. Write a materials list, including measurements. 2. Write experimental procedure steps.	04/12/2021
Part II: Do an experiment.	• Read "Laboratory Notebook." • Read "Conducting an Experiment." • Repeat your experiment at least three times.	1. Write one paragraph describing your observations. 2. Bring in the data that you collected in a data table.	05/12/2021
Analyze your data and draw a conclusion.	Read "Data Analysis & Graphs." Read "Conclusions."	1. Make at least one graph. 2. Write your conclusion.	05/14/2021
Communicate your results: Do only the assignments that your teacher has checked off below.			
❑ Display Board	Read "Display Board."	Create and assemble your display board.	05/19/2021
❑ Final Report	Read "Final Report." Read "Abstract."	1. Write your abstract. 2. Compile your final report. 3. Complete the Final Report Checklist.	05/17/2021
❑ Class Presentation	No reading assignment.	Write note cards to guide your presentation.	05/21/2021
❑ Science Expo	No reading assignment.	Bring your display board, laboratory notebook, and any other display items to school!	05/25/2021

Note: Bold=a worksheet that your teacher will provide to you.

Introducing Science Projects

Date: 2020 - 2021

Dear Parents:

Your child will have the chance to solve his or her own science mystery by doing a science project, a mandatory assignment for your child's class.

Since your child has the chance to pick his or her own science project question, from the physics of making music to the biology of tide pool animals, he or she will have the chance to experience the joy of discovery.

When starting a science project, a student chooses a question he or she would like to answer. Then, he or she does targeted library and Web research to gain the background information needed to formulate a hypothesis and design an experimental procedure. After writing a report to summarize this background research, the student performs the experiment, draws conclusions, and communicates the results to teachers and classmates.

Through time management and project planning, your child will take on the responsibility of completing a project over at least a ten-week period. Your child will discover his or her creativity by brainstorming science project questions and figuring out how to display the process and results. A science project, through its challenge to ask questions and discover, is truly a real-world experience in innovation, similar to what scientists do in their careers.

We will provide your child with sufficient support to succeed, so that he or she develops enthusiasm for scientific discovery. First, your child will accomplish each step of the project by doing homework assignments. We will review the assignments at key checkpoints along the way, so that you won't face helping your child do a project the last night before the fair. Second, we have included a basic guide (enclosed) of how to help without getting over-involved.

To get started, read through this packet: Student Science Project Schedule and Guide to Science Projects.

You will have the opportunity to approve the project your student selects by signing a Science Project Proposal Form, one of the early assignments on the attached schedule.

If you have any questions, please email me at srespers@saintaugustine-dc.org or phone at 202.667.2608 .

Sincerely,

Included:

- A Parent's Guide to Science Projects
- Student Science Project Schedule

Parent's Guide to Science Projects

Information on the Scientific Method

Science projects should follow the six-step scientific method. These steps are shown on the chart below. A comprehensive Science Buddies Project Guide (www.sciencebuddies.org) provides direction on all of the steps.

Time Management

See your child's Student Science Project Schedule for all of the key due dates. Help your child meet these dates by getting out your family calendar and marking the interim due dates. Block out times for trips to the library and other work time. Look for any scheduling conflicts, such as vacations, and discuss issues with the teacher.

How to Help

As your child works on his or her project, he or she will likely face stumbling blocks. To help, ask questions to help your child figure things out; don't just provide the answers. Open-ended questions, such as, "What else could you try to solve this?" or "What is stopping you from going on to the next step?" are best (Fredericks & Asimov, 2001, p.xiii). Sometimes just talking it out can help children get unstuck. If not, ask the teacher for help. Respect your child's independence in learning by helping at the right level.

Helping at the Right Level at Every Step

Project Step	Helping at the right level:	Going too far:
Ask a question.	• Discussing with your child whether a project idea seems practical	• Picking an idea and project for your child: A topic not of interest will turn into a boring project.
Do background research.	• Taking your child to the library • Helping your child think of keywords for Internet searches	• Doing an Internet search and printing out articles
Construct a hypothesis.	• Asking how the hypothesis relates to an experiment the child can do	• Writing the hypothesis yourself
Test the hypothesis by doing an experiment.	• Assisting in finding materials • Monitoring safety (you should always observe any steps involving heat or electricity)	• Writing the experimental procedure • Doing the experiment, except for potentially unsafe steps • Telling your child step-by-step what to do
Analyze data and draw a conclusion.	• Asking how your child will record the data in a data table • Reminding your child to tie the data back to the hypothesis and draw a conclusion	• Creating a spreadsheet and making the graphs yourself, even if your child helps type in values • Announcing the conclusion yourself
Communicate your results.	• If a presentation is assigned, acting as the audience • If a display board is assigned, helping to bring it to school	• Writing any of the text on the display board • Determining the color scheme and other graphic elements

Science Project Proposal Form

Student Name:

The question I plan to investigate in my experiment (*please phrase as a question*):

Science Project Question Checklist	
1. Your teacher may put some restrictions on projects. Have you met your teacher's requirements?	Yes / No
2. Is the topic interesting enough to read about, then work on for the next couple months?	Yes / No
3. Can you find at least 3 sources of written information on the subject?	Yes / No
4. Can you measure changes to the important factors (variables) using a number that represents a quantity such as a count, percentage, length, width, weight, voltage, velocity, energy, time, etc.? Or, just as good, are you measuring a factor (variable) that is simply present or not present? For example, • Lights **ON** in one trial, then lights **OFF** in another trial • **USE** fertilizer in one trial, then **DON'T USE** fertilizer in another trial	Yes / No
5. Can you design a "fair test" to answer your question? In other words, can you change only one factor (variable) at a time, and control other factors that might influence your experiment, so that they do not interfere?	Yes / No
6. Is your experiment safe to perform?	Yes / No
7. Do you have all the materials and equipment you need for your project, or will you be able to obtain them quickly and at a very low cost?	Yes / No
8. Do you have enough time to do your experiment more than once before the due date?	Yes / No
9. If you are planning to enter a science fair outside of your school: • Does your project meet all the rules and requirements for the science fair? • Have you checked to see if your science fair project will require approval from the fair before you begin experimentation?	Yes / No Yes / No

I have discussed the project idea and the checklist with my parent(s) and I am willing to commit to following through on this project.

Student Signature **Date**

I have discussed the project idea and the checklist with my student and I believe he or she can follow through with this project. I agree to supervise the safety of the project steps that my student performs at home.

Parent Signature **Date**

Background Research Plan Worksheet

Name: _____

1. What is the **question** you are going try to answer with an experiment? _____

_____

2. List the **keywords** and phrases from your question and the topic in general. (Hint: Use an encyclopedia to help you)

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

3. Now use your keywords to build some **questions to guide your background research**. Develop at least two or three from each "question word." Don't worry about whether you already know the answer to the question—you'll find the answers when you do your background research. And don't forget to "network" with knowledgeable adults who can help guide you toward good materials!

Question Word	Possible Questions (you can think of others)	Substitute your keywords (or variations of your keywords) for the blanks in the previous column. Write down the relevant questions and use them to guide your background research.
Why	Why does ____ happen? Why does ____ ____? Why _____?	
How	How does ____happen? How does ____ work? How does ____ detect ____? How does one measure ____? How do we use _____? How _____?	

Question Word	Possible Questions (you can think of others)	Substitute your keywords (or variations of your keywords) for the blanks in the previous column. Write down the relevant questions and use them to guide your background research.
Who	Who needs _____? Who discovered _____? Who invented _____? Who _____?	
What	What causes _____ to increase/decrease? What is _____ made of? What are the characteristics of ____? What is the relationship between ____ and ____? What do we use _____ for? What _____?	
When	When does _____ cause _____? When was _____ discovered? When _____?	
Where	Where does _____ occur? Where does _____ get used? Where _____?	

4. To analyze the results from experiments you might need to know some **key formulas or equations**. Think about your own experiment and write down any step or task that requires a formula or equation. Don't worry about whether you already know what the formula or equation is—you'll find the actual equation when you do your background research.

   List steps or tasks that may require a formula or equation:

_____ _____ _____ _____

_____ _____ _____ _____

Bibliography Worksheet

Note: You won't fill in every item depending on the type of source. **Name:** ____________________

This source is a: Book Magazine Newspaper Website Other__________		
Author's Last Name	First Name	Middle Initial
Date Published	Publication/Website Title	
Title of Article (periodicals, encyclopedias, websites)		
Place Published (books only)	Publisher (books only)	Editor (if applicable)
Edition (if applicable)	Volume Number (periodicals or encyclopedias)	Page Number(s)
Website is a Company Organization Government Newspaper/Magazine Other________		
The URL is http:// (websites only)		Last Date of Access (websites only)
This source is a: Book Magazine Newspaper Website Other__________		
Author's Last Name	First Name	Middle Initial
Date Published	Publication/Website Title	
Title of Article (periodicals, encyclopedias, websites)		
Place Published (books only)	Publisher (books only)	Editor (if applicable)
Edition (if applicable)	Volume Number (periodicals or encyclopedias)	Page Number(s)
Website is a Company Organization Government Newspaper/Magazine Other________		
The URL is http:// (websites only)		Last Date of Access (websites only)
This source is a: Book Magazine Newspaper Website Other__________		
Author's Last Name	First Name	Middle Initial
Date Published	Publication/Website Title	
Title of Article (periodicals, encyclopedias, websites)		
Place Published (books only)	Publisher (books only)	Editor (if applicable)
Edition (if applicable)	Volume Number (periodicals or encyclopedias)	Page Number(s)
Website is a Company Organization Government Newspaper/Magazine Other________		
The URL is http:// (websites only)		Last Date of Access (websites only)

Research Paper Checklist

Name: _____

☐	Have you defined all important terms?
☐	Have you clearly answered all your research questions?
☐	Does your background research enable you to make a prediction of what will occur in your experiment?
☐	Will you have the knowledge to understand what causes the behavior you observe?
	Does your research include the following:
☐	- Currently accepted theories, facts, and data
☐	- Relevant mathematics/equations (if applicable)
☐	- Key discoveries and early researchers
☐	Have you referenced all information copied from another source and put any phrases, sentences, or paragraphs you copied in quotation marks?
☐	Is every fact or picture in your research paper followed by a citation telling the reader where you found the information?
	Does your research paper include:
☐	- A title page
☐	- Your report
☐	- Bibliography
☐	Have you used the proper capitalization and punctuation?
☐	Have you checked your grammar and spelling?

Variables & Hypothesis Worksheet

Name: _____

Variables *(Fill in the table with the appropriate information from your own experiment)*		
Independent Variable *(What will you be changing in the experiment. Note: There should only be one item listed here)*	**Dependent Variables** *(What will you be measuring or observing)*	**Controlled Variables** *(What will you be keeping the same during the experiment)*

Your Hypothesis
(Fill in the blanks with the appropriate information from your own experiment.)

If [*I do this*] _____

_____,

then

[*this*]_____

_____

will happen.

Final Report Checklist

Name: _____

☐	Does your abstract include a short summary of the hypothesis, materials & procedures, results, and conclusion?
☐	Have you used the proper capitalization and punctuation?
☐	Have you checked your grammar and spelling?
	Does your final report include the following key sections:
☐	- Title page
☐	- Abstract
☐	- Table of contents
☐	- Question, variables, and hypothesis
☐	- Background research (your Research Paper)
☐	- Materials list
☐	- Experimental procedure
☐	- Data analysis and discussion (including data tables and graphs)
☐	- Conclusions
☐	- Acknowledgements
☐	- Bibliography

Final Expo Participation Reminder

To Students and Parents of Students in Saint Augustine School Science Expo

Here are the rules and information that you need to have a successful science expo experience.

Rules

1. The expo will not provide access to electricity, gas, or water.
2. Your display board should not exceed:
   Width: 4 ft, 122 cm Depth: 2.5 ft, 76 cm Height: 5 ft, 152 cm
3. Make a sturdy display board. Two days before the expo, test it by setting it up to make sure it stands alone.
4. Do not bring animals to the expo. Bring photos instead.
5. The expo cannot be responsible for any loss of items. We advise that students should not display laptops or other items of value.
6. You must remove your project at the end of the expo. We do not have storage space for unclaimed projects.

Dropping off Projects

Drop off projects in the Saint Augustine Room between 8:15 a.m. and 3:15 p.m. on May 21, 2021.
You may park in the Church parking lot.

Make sure to bring the following, if your child completed them:

1. Display board
2. Any items that go in front of the display board
3. Laboratory notebook
4. Pen, tape, glue, and other quick-fix items in case the display board gets damaged in transit
5. Final report (if assigned)

Visiting the Expo

Parents and other family members are welcome to visit the expo between 10:00 a.m. and 3:45 p.m. on May 25, 2021. We highly recommend that you visit the expo to give students the chance to feel proud of showing their work.

Removing Projects

You must remove projects by 4:00 p.m. on May 25, 2021. The school does not have space for the storage of projects.

Works Cited

Fredericks, Anthony D. and Isaac Asimov. Science Fair Handbook: The Complete Guide for Teachers and Parents. Tucson: Good Year Books, 2001.

National Research Council (NRC). National Science Education Standards. Washington: D.C.: National Academy Press, 1996.

TABLE OF CONTENTS

SCIENCE SAFETY GUIDELINES

- Give explicit instructions regarding safe practices for science investigations.
- Encourage students to ask questions when they are not sure.
- Have students wear safety goggles when needed.
- Require students to keep work areas neat and clean.
- Assist in clean up any spills right away.
- Make sure students never taste or smell substances unless instructed to do so.
- Ensure that students handle sharp items and other equipment carefully.
- Ensure that students handle chemicals carefully and seek permission first.
- Have students put materials away when they finish.
- Require students to wash hands with soap and water when finished.

COMPONENTS OF A SCIENCE FAIR PROJECT:

THE "SCIENTIFIC METHOD"

1. **Title** (may be the same as the Problem)

2a. **Introduction**, or Background Information (optional, as needed)
- What gave the student the idea? Who helped the student? What research was done?
- Include background information needed to understand or explain the problem

2b. **Problem**
- Use question format. Example: "Which materials conduct electricity?

3. **Hypothesis**
- It is a prediction about the possible outcome, written before doing the experiment.
- If...then statements can be a helpful way to phrase a hypothesis.

Examples:
a) "I think plants need sunlight because I noticed that plants on the sunny side of my house are larger than the plants on the shady side. If this is true, then if I place one plant in the sun and one plant in the dark closet, I predict the one in the dark will not grow." (primary grades)
b) "While experimenting with electromagnets, I discovered that more wire coils around the nail made the magnet stronger. I wonder if there were other ways to increase the strength of an electromagnet. An electromagnet has wire coils and an iron core. I think that if I wrap coils around a larger nail, then it will attract more paperclips than on a smaller nail." (upper grades)

Notice that these hypotheses have the variable and the background, and the idea for the experimental design already built into them. Remember: the point is NOT to prove you are right; the results of the experiment may not support the prediction. Many important science discoveries and advances have been made because scientists were forced to rethink their predictions when things did not turn out as expected. Scientific inquiry is a process.

4. **Materials**
- List of all materials needed (including items such as scissors, containers, tape, etc.) and include the quantity of each item.

5. **Procedures**
- Should be written as detailed step-by-step instructions, and include repeated trials.
- Should include a control test when applicable. This shows that the outcome was a result of changing the variable—not a result of random chance.

Example: If you are trying to prove chemical reactions happen faster at higher temperatures, you need to experiment at room temperature as well, and test each temperature multiple times.

6. **Results**
- Graphs, charts, tables. Diagrams and/or photographs.

7. **Conclusion**
- Refer to the original question and examine the outcome compared to the hypothesis.
- Discuss any problems encountered during the procedure.
- Offer an explanation or further research or investigations.
- Suggest possible real world applications for expansion of the project

GUIDING STUDENTS THROUGH A SCIENCE FAIR PROJECT

Purpose: Science fairs provide an opportunity for students to be creative, to take pride in themselves and their work, and to experience the hands-on use of the scientific process.

- To provide an additional opportunity for students to actively apply their knowledge and learn methods of critical thinking through problem solving in math and science.
- To give students and teachers an opportunity to meet with other students, teachers and professional scientists and engineers to share common interests and methods of solving problems, which in turn encourages youths to enter scientific careers.
- To afford parents and the community an opportunity to examine another aspect of the academic performance of students.
- To provide an opportunity to integrate curriculum, i.e., science with the "three Rs" and study/research skills.

Teacher's Role: The teacher is the key to student success in science fair projects.

- Instructing students in the scientific method.
- Supporting and providing encouragement for the youth and a positive environment in which they can explore and experiment.
- Monitoring and working with students to develop a science project timeline and to monitor student progress on the science fair project.

Techniques for Development of Process Skills in Science:

- Involve students in observation – identifying objects and their properties using all five senses, noting changes, making controlled and objective observations.
- Conduct activities involving classification – sort objects, match by likenesses and differences, from simple to complex, etc.
- Provide opportunities for experiences in measurement – length, volume, weight, area, temperature, time, force, speed, etc.
- Involve students in the collection and organization of data – describing properties and changes, recording data in pictures, diaries, stories, putting changes or data in sequence, constructing graphs, reporting in writing all stages of an investigation.
- Provide experiences which require inferences and predictions – determining if . . . happens, then . . . will happen.
- Make students aware of the concept of variables: the identification and control of variables – independent vs. dependent (held constant vs. manipulated).
- Provide opportunities for students to make and test hypotheses, distinguishing from and developing these from simple observations, inferences, or predictions.
- Conduct a unit of study which brings together and applies all of the skills involved in the hierarchy, causing process integration, and culminate with a class project.

Questions to Stimulate Inquiry: As you work with students in science lessons and with science fair projects, ask these kinds of open-ended questions:

- What has happened?
- Why do you think it has changed?
- How can we find the answer?
- What do we need to test this?
- What might we do to find out more?
- What changes should we make in our experiment?
- How shall we begin?
- How can we prove what this is true?
- What conclusions can you make?

Example: Outline of a Beginning Project

Question: Do bean seeds have a top and bottom – does it matter how they are planted?

Hypothesis: I think that people who grow large gardens or farmers planting large numbers of bean plants don't have time to look at each seed and make sure it is planted in the correct position. This makes me think that it doesn't matter in which position beans are planted. If so, then bean seeds planted with one side up will grow equally well as those planted with the other side up.

Experiment: Get nine of the same plant containers. Fill them with the same amount of the same soil. Plant three beans in three containers in exactly the same way, with one end up. In the second three containers plant them with the other end up. In the last set of three containers, plant them with the middle of the bean up. Give all plants the same amount of water and same amount of sunshine. Everything in the experiment is the same, or constant, except for the direction of the beans.

Observation: Watch the plants as they grow. Measure growth. Record drawings in a notebook every few days. Write down thoughts. Take pictures. Create a graph that shows the averages of the results.

Conclusion: All the plants grow up out of the soil to about the same height – it doesn't matter how the seeds are planted. Bean seeds do not have a top or bottom.
Further questions: Do different types of beans have different results? What if the beans shifted when they were watered? What happens if the seeds are planted deeper? What about plants with bulbs – do they have a top or bottom?

Doing Background Research / Getting Advice:

Before starting the project, a background review should be conducted. Make observations about things in their daily life. Ask questions of adults and to other students. Students may also do research on the Internet. The student also can talk with other teachers or people working in the field of interest concerning types of projects, set-ups of experiments, conducting tests, and presentation of projects. Many professionals in science, engineering, mathematics, and computer science are willing to provide help and guidance.

A quick way of finding background information is through an Internet search. It is a valuable experience to learn how to use the Internet as a tool. The Internet is a good place to find ideas for projects. It includes science demonstrations for primary grades, or may stimulate ideas for those in upper grades. Remember that in upper grades, 4-8, students should begin investigating a "testable question", designing an experiment where they test the effect of a controlled variable.

But the best projects are those which come from the students own interest, like "I wonder what would happen if I ...?" or, "I wonder which is the best ... for ...?" or "What is the effect of ... on ...?" Let students make observations about the world around them, or their own personal experiences, and from that, develop a testable question.

Areas of Focus:

Categories in the Science Fair include:

- o Behavioral
- o Biological
- o Physical
- o Math/Computers

At the elementary level, it may be appropriate to judge projects in categories, or simply all together. Students should feel free to investigate and experiment on any topic that is of interest to them.

CRITERIA FOR EVALUATION OF EXPERIMENTS

Evaluation should be done after comparing a given student's project with all other experiments in the class and also with regard to absolute standards of quality and excellence, keeping the skills and knowledge appropriate for a given grade level in mind. Guiding questions to consider are as follows:

Project Components:

• Title/Problem: Does the student clearly state what he/she is trying to find out? Is it in the form of a question?
• Hypothesis: Does the student clearly state a hypothesis and offer a reason?
• Experimental design and rationale: Does the student clearly explain how the experiment will answer the question and test the accuracy of the hypothesis posed?
• Procedures: Are the procedures clearly described, and are they appropriate for the question and hypothesis posed? Are the methods described step by step? Is there a control (if applicable)?
• Does the technique and skill put into the experiment indicate a serious level of effort, or was the experiment quickly thrown together at the last minute without much thought?
• Observations: Does the student collect his/her own data (as opposed to something read out of a book or seen on television)? Has the student used the senses of sight, hearing, touch, and smell in a manner related to the problem?
• Did the student measure with reasonable accuracy?
• Did the student do only a single experiment or were experiments repeated to verify?
• Conclusions: Are the student's own observations and data used to reach conclusions? Does that data support the conclusions drawn?

Presentation of Project:

• Is the experiment neatly, logically, and attractively presented on the display board? Are pictures and drawings used to enhance the presentation?
• Are graphic organizers used effectively (tables, graphs, charts, diagrams)?
• Is the written material clear and easy to understand?
• Is outside help acknowledged?
• Is there a bibliography?
• Was the hypothesis or question verified?
• Is the summary report included?

SCIENCE FAIR JUDGING GUIDELINES

When checking projects into the fair, make sure the student's name only appears on the back of the project board. Assign each project a number and keep a master list with student name, grade level, teacher's name, and project number in order to ensure impartiality during the judging process. Group projects by grade level so that judges can easily be assigned a set of projects within the same grade level to evaluate.

As a general rule of thumb, each project should be evaluated independently by multiple judges. Average the scores for final results. In cases where there is a large discrepancy between two judges' scores, a third judge should evaluate the project before averaging the results.

When recruiting judges, consider the following sources:

- Fellow teachers at your site
- Retired teachers or friends of teachers
- Students from a high school science class
- College students in a science major

On the next few pages are some examples of judging forms and rubrics that can be used to evaluate projects.

ELEMENTARY SCIENCE FAIR JUDGING FORM
SCIENCE FAIR JUDGING FORM: GRADE ___ PROJECT # ____

GENERAL INSTRUCTIONS TO JUDGES

Award a number from 1 to 10 for each category, with 1 as the lowest and 10 the highest. In each category to be evaluated there are questions to guide you in making your evaluation. Don't try to determine the best at this point, simply award points as merited by each project. If a project lacks one of the components then give it a 0 for that category. Thank you so much for your time and effort!

SCIENTIFIC METHOD [NOTE: K – 3 projects may be demonstrations, 4-8 must involve problem solving.]

1. Is the **PROBLEM** clearly stated in the form of a question? Is it a testable problem? _____/10

2. Is a **HYPOTHESIS** offered? Is their reasoning explained? (I think... because...) _____/10

3. Is the **PROCEDURE** explained in terms the student and you can understand? _____/10
Are the methods described step by step? Are the **MATERIALS** listed?
Is the procedure appropriate for the question and hypothesis given?

4. Are the **RESULTS** easy to understand? If appropriate, are the graphs and charts clearly _____/10
labeled? For measurements, are the appropriate units given? If there is no way to
represent the results in chart or graph format, is there some kind of graphic display?

5. Is the **CONCLUSION** supported by the results? Does the conclusion relate back to the _____/10
hypothesis? If the hypothesis is not proven correct by the results, is there an attempt
to explain this, or a suggestion of further research that would be needed?

6. Was the experiment controlled – i.e. was there a comparison made to show that the _____/10
variable under investigation was in fact responsible for the results, and that it was not
merely coincidental?

7. Were multiple trials done to verify results? Was it an appropriate number of trials? _____/10

SCIENTIFIC ACCURACY and KNOWLEDGE

8. Did the student give credit to sources of any information used? Is the factual _____/10
information correct? Are any calculations done correctly? Is the spelling correct?

NEATNESS, TIME, EFFORT, and CREATIVITY

9. Are the labels and title neat? Is it typed, or the handwriting as neat and legible as you _____/10
could expect for grade level? Is the board layout and design as attractive as might be
expected for grade level? Are there props, pictures or sketches included?

10. Is it apparent that the student used creativity and put appropriate effort into the project? _____/10
Total Score _____/100
Judge Sign-off: _____
Comments: _____
_____

SCIENCE FAIR JUDGING RUBRIC: GRADE ___ PROJECT # ____

PART 1 – SCIENTIFIC METHOD

Statement of Problem / Purpose of Investigation				Score
3 pts. The question that the investigation was designed to answer is well articulated and is testable.	**2 pts.** The question is testable, but not clearly stated.	**1 pts.** The question is stated, but it is not testable.	**0 pts.** Not done	
Hypothesis / Educated Guess				
3 pts. Hypothesis is clearly stated and shows a relationship between the independent and dependent variables (cause and effect reasoning).	**2 pts.** Hypothesis is stated but is not reasonable or only mentions one of the variables.	**1 pts.** The hypothesis is stated but doesn't show a relationship between variables.	**0 pts.** Not done	
Method / Procedure				
3 pts. Procedure is easily understood, is written in step-by-step format, and includes a materials list.	**2 pts.** Two out of the three criteria are present.	**1 pts.** One out of the three criteria is present.	**0 pts.** Not done	
Results / Data				
3 pts. Results are easily understood, given in chart and / or graph format, and are accurate and quantified, including correct units as appropriate.	**2 pts.** Two out of the three criteria are present.	**1 pts.** One out of the three criteria is present.	**0 pts.** Not done	
Conclusion / Application				
3 pts. Stated conclusion is consistent with results, is relevant to the hypothesis, and suggests further research or real world application.	**2 pts.** Two out of the three criteria are present.	**1 pts.** One out of the three criteria is present.	**0 pts.** Not done	

For parts 2 and 3, use the following scoring

5 pts. impressive	**4 pts.** very good	**3 pts.** adequate	**2 pts.** minimally adequate	**1 pt.** very poorly done	

PART 2 – ORIGINALITY / CREATIVITY

Project is clearly the *work of the student* – i.e. input by adults appears limited to encouragement and assistance in obtaining materials. The topic chosen is original, or is approached in a creative way.	

PART 3 – EFFECTIVENESS OF DISPLAY

Project is visually appealing, neat, well organized, and includes props, photographs or sketches	

Total points for project (out of a possible 25) ..... _____

Total score as % of 100 (multiply points by 4..... _____

Judge Sign-off: _____

Comments: _____

_____

Science Fair Judging Rubric

Grade:_____ Project #: _____ Teacher: _____

Judge Initials: _____	Project Title: _____				
Part I. Scientific Method	**Excellent**	**Good**	**Adequate**	**Minimal**	**Missing**
Clear & specific Question	4	3	2	1	0
Clear & specific Hypothesis	4	3	2	1	0
Complete materials list	4	3	2	1	0
Complete & thorough Method (Step by Step)	4	3	2	1	0
Complete & thorough Data (logs, graphs, tables, photos…)	4	3	2	1	0
Conclusion supported by Data	4	3	2	1	0
Conclusion relevant to Hypothesis	4	3	2	1	0
Part II. Originality and Presentation	**Excellent**	**Good**	**Adequate**	**Minimal**	**Missing**
Original topic or approach	4	3	2	1	0
Neatness and clarity of overall project	4	3	2	1	0
Subtotals:					

Grand Total: _____

Comments:

_____

_____

_____

Visual Display (Backboard)

Display Board Size: 48" x 36" Tri-fold Backboard
Color: Grades 3-5 (Yellow); Grade 6 (Blue); Grade 7 (Green); Grade 8 (Red)

Starting Point: Your visual display is a way to showcase all of your hard work, information researched, tested, collected, and analyzed. Make the most of your space using clear and concise displays. The purpose of a visual display is to attract readers and present the information in a creative and organized manner.

Warning: The judges are judging your research and how you applied the scientific method in when you performed your experiment, not the display. So don't spend an excessive amount of time or money on the board. You are being judged on the science not the show!

Assignment: Backboard: On a cardboard backboard, the following information should be prominently displayed.

1. Project Title
2. Question
3. Data Table and Graph
4. Abstract
5. Variables and Hypothesis
6. Resource Summary
7. Materials and Methods
8. REC²ALL

Include relevant pictures and diagrams in multiple areas.
Your Name, Class, Teacher's Name, and Date should be on the back board.
Presentation: Your presentation will be a 4-5 minute summary of your project (an oral abstract). You may use note cards to stay on track.

Example: Use the following diagram for the correct layout of your board.

Abstract Variables and Hypothesis Resource Summary	Project Title Question (Experiment Set-up pictures/diagrams) Data Table and Graph	Materials and Methods REC²ALL

Science Fair Student Rubric
Visual Display (Backboard)

Grade:_____ Project #: _____ Name : _____

Student visual display is assessed on the following:

Project Title: 5%	_____/1 point
Question: 5%	_____/1 point
Data Table and Graph: 10%	_____/1 point
Abstract: 5%	_____/1 point
Variables and Hypothesis: 5%	_____/1 point
Resource Summary: 5%	_____/1 point
Materials and Methods: 5%	_____/1 point
REC²ALL: 10%	_____/1 point
Creativity and Organization: 20%	_____/1 point
Display is Eye Catching and Colorful	_____/1 point
Pictures are incorporated	_____/1 point
Layout is in the Correct Format	_____/1 point
Time and Effort is Evident	_____/1 point
Presentation: 30%	
Student Identifies:	
Title / Question	_____/1 point
Purpose	_____/1 point
Hypothesis	_____/ 2 points
Materials/Methods	_____/ 2 points
Data	_____/ 2 points
REC²ALL	_____/ 2 points
Answers Peer Questions	_____/ 1 point
Total: 100%	_____/ 25 points

FAITH KNOWLEDGE ASSESSMENT SCHEDULE

ONE WEEK ONLY

Monday 4/19/21	Tuesday 4/20/21	Wednesday 4/21/21	Thursday 4/22/21	Friday 4/23/21
8:20-9:10 am Grade 3	8:20-9:10 am Grade 6	8:20-9:10 am MAKE UP	8:20-9:10 am MAKE UP	8:00 – 9:30 am MASS
9:15-10:00 am Grade 4	9:15-10:00 am Grade 7	9:15-10:00 am MAKE UP	9:15-10:00 am MAKE UP	9:40 – 10:25 am NO TESTING
10:05-10:50 am Grade 5	10:05-10:50 am MAKE UP	10:05-10:50 am MAKE UP	10:05-10:50 am MAKE UP	10:40 – 11:25 NO TESTING
10:55-11:25 am Grade 8	10:55-11:25 am MAKE UP	10:55-11:25 am Accommodation	10:55-11:25 am MAKE UP	12:45 – 3:30 pm Lunch/(PD) Professional Development
1:25-2:10 pm Accommodation	1:25-2:10 pm Accommodation	1:25-2:10 pm Accommodation	1:25-2:10 pm Accommodation	