



FAMILY EXPLORATION PROJECT PACKET

Wonder together. Try something. Notice what happens. Share what you discovered.

This is an enrichment experience - not a science-class assignment.
Each SMMEIIS Institute household may complete ONE project. Students should be active participants, but families are encouraged to wonder, research, build, test, photograph, talk, and learn together.

FRI • NOV. 6 Set up project & display board School Cafeteria	SAT • NOV. 7 Project judging	SUN • NOV. 8 Open to the public Sunday afternoon
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NEVER DONE A SCIENCE FAIR? START HERE!

A science fair project begins with curiosity.

Your family does not need a complicated invention, expensive supplies, or a parent who already knows science. Start with something your student wonders about. Then find a simple way to explore that question.

Try asking: What could we test? What could we compare? What could we build? What could we grow? What could we observe over several days? What could we change to see if it makes a difference?

Simple project possibilities

Which paper-airplane design flies farthest?	What material keeps an ice cube from melting longest?
Does sunlight change how quickly a plant grows?	Which homemade bubble mixture makes the strongest bubbles?
Which surface lets a toy car travel farthest?	Does water temperature change how fast something dissolves?
Which material absorbs the most water?	What conditions help seeds sprout fastest?

OUR FAMILY IS CURIOUS ABOUT...

YOUR FAMILY'S DISCOVERY PATH

1 • WONDER

What are you curious about? Turn your curiosity into one question you can explore.

2 • CHOOSE

Pick one project your household can realistically complete with the time and materials you have.

3 • LEARN

Do a little research. What do books, trusted websites, videos, or knowledgeable people teach you about the topic?

4 • GUESS

Make your best educated guess about what will happen. Scientists call this a hypothesis.

5 • TRY IT

Test your idea. Build, compare, measure, observe, or experiment. Keep it safe and let the student do meaningful work.

6 • NOTICE

Write down what happens. Take measurements when possible. Photograph your family working together.

7 • SHARE

Look at your notes and decide what you learned. Then build your display board so others can follow your discovery.

PLAN YOUR EXPLORATION

Our project title:

Our big question:

What do we want to find out?

What we already know:

What have we noticed, heard, read, or experienced about this topic?

What we need to research:

What information would help us understand our question before we test it?

Our best guess - HYPOTHESIS:

We think _____ will happen because _____.

What we will do:

Briefly describe how your family will explore or test the idea.

RESEARCH: LEARN A LITTLE BEFORE YOU TRY IT

Research does not have to be a long report.

The goal is to help your student understand the topic well enough to make a thoughtful prediction and explain the project. Families may use age-appropriate books, library resources, reliable educational websites, videos, or conversations with someone who knows about the topic.

Keep track of where you learned things. On the display board, students can simply list the books, websites, videos, or people that helped them learn.

Three things we learned before we started:

Words or ideas we had to look up:

Sources that helped us:

FAMILY SCIENCE JOURNAL

Use this page more than once if you need it.

The journal shows the story of your project. Short notes are fine. Younger students may dictate to an adult, write a few words, or add a drawing - but the student's thinking should be visible.

Date	Who worked with me?	What did we do?

What did I notice or measure?

Did anything surprise us? What might we try next?

SHOW US YOUR FAMILY AT WORK!

Take 3-5 photos during the project.

The photos are part of the project story. They should show the student actually participating with one or more family members - researching, gathering materials, building, testing, measuring, observing, recording results, or preparing the display.

Photos do not need to be professional. A phone photo is fine. Choose a few clear images that help someone understand how your family worked together.

PHOTO 1 How we got started	PHOTO 2 Working together
PHOTO 3 Testing / observing	PHOTO 4 What happened

YOUR DISPLAY BOARD: TELL THE STORY

Every household will need a project display board.

A standard tri-fold presentation board works well. Your board does not need to look like a professional laboratory display. It should be clear, readable, student-friendly, and easy to follow.

PROJECT TITLE	Give your exploration a clear, interesting name.
OUR QUESTION	What did your family want to find out?
RESEARCH	Share a few important things you learned before testing.
HYPOTHESIS	What did you think would happen, and why?
WHAT WE DID	Show the steps, materials, or process you used.
FINDINGS / RESULTS	What happened? Add measurements, a simple chart, table, or observations when helpful.
WHAT WE LEARNED	What do your results mean? Was your hypothesis supported? What would you try next?
FAMILY AT WORK	Include 3-5 photos showing the student participating with family.
SOURCES	List the books, websites, videos, or people that helped you learn.

SAMPLE PROJECT BOARD TEMPLATE

Use this as a guide - families may arrange their boards differently.

LEFT PANEL	CENTER PANEL	RIGHT PANEL
OUR QUESTION What did we want to find out?	PROJECT TITLE	FINDINGS / RESULTS What happened? Add a chart, numbers, or observations.
RESEARCH What did we learn first?	HYPOTHESIS Our best educated guess	WHAT WE LEARNED What do the results tell us?
SOURCES Where did we learn it?	WHAT WE DID Materials + steps	TRY NEXT... What would we explore next?
	FAMILY AT WORK Add photos here	

Tip: Use large headings and short blocks of text. Let photos, drawings, charts, samples, and student work help tell the story. The board should be understandable without a long written report.

PLACE YOUR ACTUAL PROJECT / EXPERIMENT / BUILD HERE

Set it in front of the display board so visitors and judges can see what your family created or tested.

SCIENCE WORDS YOU'LL USE

Question	What you want to find out.
Research	Learning about your topic before you begin.
Hypothesis	Your best educated guess about what you think will happen and why.
Experiment	A test you do to help answer your question.
Observation	Something you notice using your senses or measurements.
Data	Information you collect - such as numbers, notes, counts, or measurements.
Results	What happened during your exploration or experiment.
Conclusion	What you learned after looking at your results.
Variable	Something that can change during a test.
Constant	Something you try to keep the same so the comparison is fair.
Measure	To find the amount, size, length, time, temperature, or other quantity.
Compare	To look at two or more things to see how they are alike or different.
Evidence	Information from your test that helps support what you say you learned.
Source	A book, website, video, person, or other place where you found information.

READY TO SHARE? FAMILY CHECKLIST

☐	We completed only ONE project for our household.
☐	Our student can explain the project's big question in their own words.
☐	We did some research before or during our exploration.
☐	We wrote a hypothesis - our best educated guess.
☐	We kept notes in a science journal or progress log.
☐	We recorded what happened through observations, measurements, data, drawings, or notes.
☐	We took 3-5 photos showing our student working with family.
☐	We decided what we learned from our results.
☐	We have a display board with our question, research, hypothesis, process, findings/results, what we learned, photos, and sources.
☐	Our display is readable, neat, and ready to set up in the school cafeteria on Friday, November 6.
☐	We are ready for judging on Saturday, November 7.
☐	We are ready to celebrate and share with the public on Sunday afternoon, November 8.

Most important: The goal is not perfection. We want students to experience curiosity, problem-solving, family collaboration, and the excitement of discovering something for themselves.