

# SCIENCE FAIR

*Homeschool Edition*



2024 CENTRAL GEORGIA HOMESCHOOL SCIENCE FAIR

# STUDENT PACKET

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*A letter to the parents...*

Dear parents,

Congratulations to you and your student(s) for choosing to participate in the 2024 Central Georgia Homeschool Science Fair! As you know, science and technology are an integral part of our homeschool journey. We are responsible for guiding the next generation of 21<sup>st</sup> century citizens and it is our hope that by participating in events such as this, we will be not only be generating knowledge of current scientific processes, but also elevating their understanding of emerging science and technologies.

The guidelines in this packet are simply a help guide. The judge rubric included, however, will be the one used for each student to be considered for an award. We encourage you to offer your child emotional support and reminders, but to allow children to do the work for themselves as much as possible.

Please do not hesitate to email or message us if you have any questions. Thank you for your support!

Sincerely,

*The Lamar County Homeschoolers Science Fair Logistics Team*

## Introduction

**EVENT DATE:** November 13th, 2024

**EVENT LOCATION:** Barnesville Civic Center, 685 Forsyth St, Barnesville, GA 30204

**PARTICIPANT LEVELS:** K-2<sup>nd</sup> Grade (9am-11:30am)

3-5<sup>th</sup> Grade (9am-11:30am)

6-8<sup>th</sup> Grade (Noon-3pm)

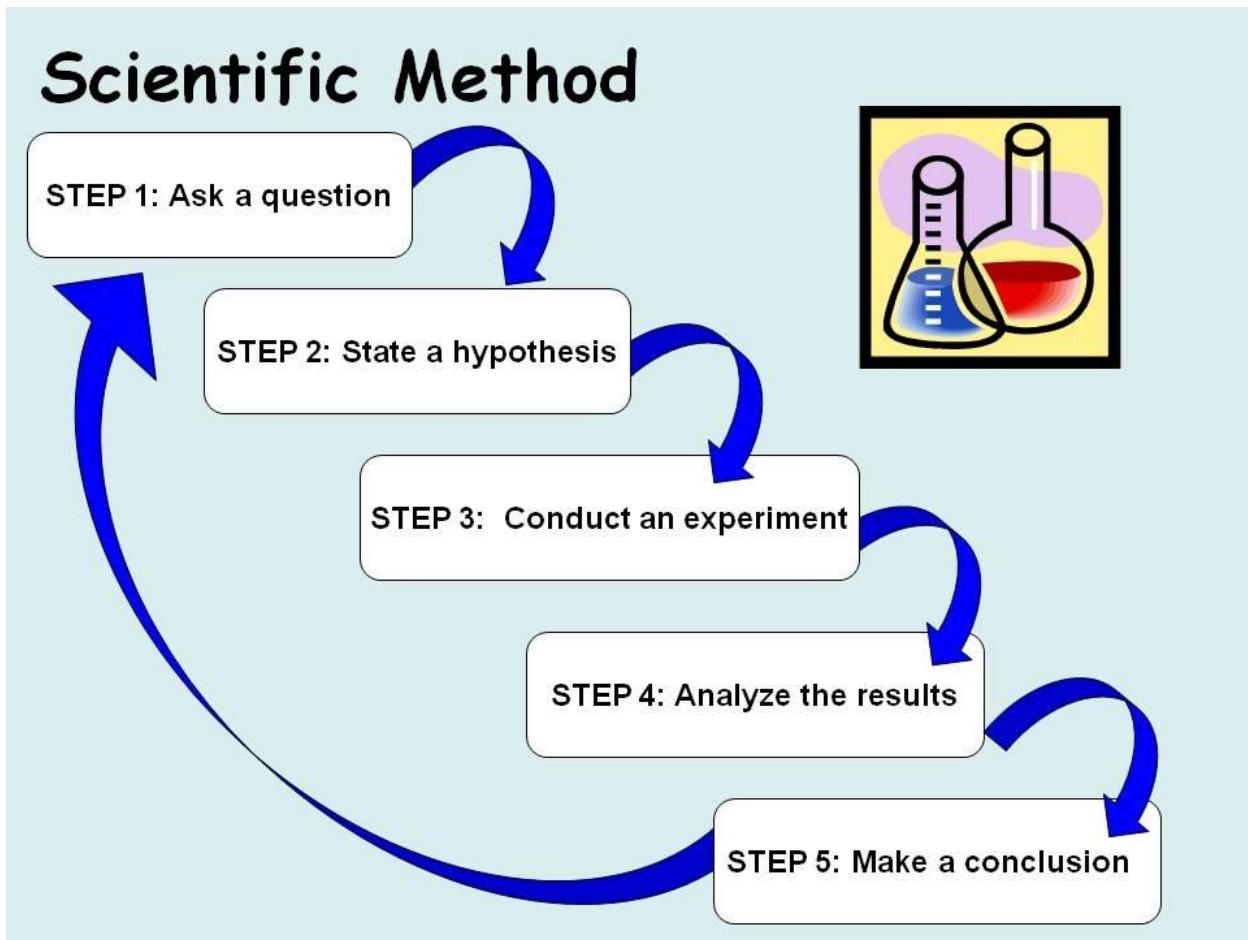
9-12<sup>th</sup> Grade (Noon-3pm)



## Getting Started

All projects should:

1. Consider a problem or question.
2. Allow the student to form a hypothesis.
3. Test the hypothesis.
4. Show how the scientific method was used to determine the results.



\*Stock image from Microsoft Word

## **Display Regulations**

### **Display:**

- Please attempt to keep display within a reasonable size. Tables will be provided for displays, but floor and/or outdoor space is available as well upon request.
- Venue walls cannot be used, nor can any items be resting against the walls.
- Demonstrations are allowed within booth space. When not being demonstrated, all project components must be returned to the display area.
- All images, tables and graphs must be credited to the appropriate parties.
- Personal information must not be displayed, including postal addresses, email and/or social media addresses, QR codes, or telephone numbers of a participant. Information that is permissible includes participants name, city, county, state, age and/or grade.
- Do not display photos or graphics of inappropriate or offensive nature, including but not limited to presentations depicting vertebrate animals/humans in surgical techniques, dissections, necropsies, improper handling methods, improper housing conditions, procedures, etc.
- Do not display the following items: Acknowledgments, endorsements, thanks, awards, medals, flags, logos, or give-away items such as flyers, pens, postcards, CDs, business cards, etc.

## **Safety Regulations**

**Projects to avoid:** Any topic that requires drugging, pain, or injury to a live vertebrate animal. Any topic that creates unacceptable risk (physical or psychological) to a human subject. Any topic that involves collection of tissue samples from living humans or vertebrate animals.

**Use photos or drawings instead of these disallowed physical objects:**

- ☒ All liquids and/or chemicals
- ☒ Human or animal food (unless pre-approved by committee)
- ☒ Waste samples, toxic waste samples
- ☒ Concrete
- ☒ Preserved vertebrate animals or their parts, including taxidermy
- ☒ Human/animal parts or body fluids (blood, urine)
- ☒ Batteries with open-top cells or wet cells
- ☒ Poisons, drugs, controlled substances, hazardous substances or devices (for example: firearms, weapons, ammunition, reloading devices, grease/oil)
- ☒ Dry ice or other sublimating solids (solids which vaporize to a gas without passing through a liquid phase)
- ☒ Sharp items (for example: syringes, needles, knives)
- ☒ Any flames, open or concealed, or highly flammable materials
- ☒ Gases or empty tanks that previously contained combustible liquids or gases, including butane and propane
- ☒ Drones or any flight-capable apparatus unless the propulsion power source is removed
- ☒ Any display items that are deemed overly distracting (i.e. sounds, lights, odors, etc.)

## Science Fair Shopping List

Students should start a shopping list as soon as they have chosen a topic. Display boards should be purchased early. That way, students will be able to easily visualize the amount of room they'll have for text, photos, charts, graphs, etc. **The following list is for your reference only, these items are merely a suggestion. This list is NOT mandatory.**

**Board:** 40 in. x 30 in. x 3/16 in. White Tri-Fold Project Board

**Accessories:** Self-Adhesive Vinyl Letter Set

- Vinyl Letters and Numbers

- Permanent Markers

- Ruler or Meter Stick

- Decorative Borders

**Adhesives:** Rubber Cement

- Extra Strength Glue Stick

- Foam Mounting Tape

- Extra Strength Spray Adhesive

**Cutting Tools:** Hobby Knife

- Scissors Safety

**Safety Supplies:** Safety goggles or glasses

- Disposable gloves

- Apron

- First Aid Kit

**Making Models:** Modeling Clay

- Foam board

- Packaging Materials

**Experiment Supplies:** Funnels

- Balances

- Scales

- Thermometers

- Water and soil test kits

- Lighting

- Plants, seeds

- Sand, soil, clay

## Judging Rubric

\*K-2 may use this rubric as a reference, but is exhibition only and therefore will not be judged. Each K-2 participant will receive a participation award.

Project Elements	Possible Score	Score
Research Question: <ul style="list-style-type: none"><li>• Clear and focused purpose</li><li>• Identifies contribution to field of study</li><li>• Testable using scientific methods</li></ul>	10	
Design and Methodology: <ul style="list-style-type: none"><li>• Well-designed plan and data collection methods</li><li>• Variables and controls defined, appropriate and complete</li></ul>	20	
Execution: Data Collection, Analysis & Interpretation: <ul style="list-style-type: none"><li>• Systematic data collection and analysis</li><li>• Reproducibility of results</li><li>• Appropriate application of mathematical and statistical methods</li><li>• Sufficient data collected to support interpretation and conclusions</li></ul>	20	
Creativity: <ul style="list-style-type: none"><li>• Project demonstrates significant creativity/ originality/ inventiveness</li></ul>	20	
Presentation: <u>Display (20 pts):</u> <ul style="list-style-type: none"><li>• Neatness</li><li>• Clarity of Text</li><li>• Use of images, graphics, tables, and graphs</li></ul> <u>Interview (10 pts):</u> <ul style="list-style-type: none"><li>• Thoughtful responses to questions</li><li>• Understanding of basic science relevant to project</li></ul>	30	
	<b>100</b>	