Fayette County Public Schools

January 02, 2026

Dear Parents,

Congratulations to your student for designing a winning project at your school's Science Fair. We have reserved a spot for your student at the 41st Annual Kentucky American Water Science Fair, coordinated by Fayette County Public Schools on **Saturday, February 07, 2026**. The Science Fair will be at Frederick Douglass High School in Lexington. The following information will be helpful as you develop your plans to participate. Please review these with your student.

1. Student registration will begin at 8:00AM. Students with projects may enter through the side entrance of the building and go to the cafeteria to register.
2. All students must register as soon as they enter the building and before they set up the project display. At the Registration tables, students will receive a table assignment number and a *Judging Release* form. Assistance will be available to help students locate their display table. (Projects must fit into a space 45 cm (1.5 ft.) front to back and 75 cm (2.5 ft.) side to side and be less than 180 cm (6 ft.) tall.)
3. Project judging will take place between 9:00am and noon (approximately). Students will be competing with other students in the same grade (except for high school – all high school grades compete together) and science category.
4. Students must stay with their projects until two judges have interviewed them. All students will be provided with a chair and a light snack while waiting. We *strongly* encourage students to bring a book, or some quiet individual activity to do while waiting to be judged.
5. Only students and judges will be allowed on the floor during judging from 9:00AM until noon. However, seating is available for parents in the gymnasium balcony, and we encourage you to stay.
6. After being judged, students may leave the gym. They will take their *Judging Release* form with the two judges' signatures to the T-Shirt Booth in the gym and redeem it for a 2026 Science Fair T-shirt.
7. The Discovery Zone will be taking place from 9:30 AM to 1:00 PM in the lobby and main hallway near the cafeteria. Special activities and presentations, sponsored Kentucky American Water and area science enthusiasts, are designed for students and their families to enjoy.
8. Projects are to remain on display for public viewing from 12:00 PM – 3:00 PM. A short awards ceremony will begin at 3:00PM in the school gymnasium. Projects *must* be removed following the ceremony.

Thank you,

David W. Helm

David W. Helm,
FCPS K-12 Science Instructional Specialist
Fayette County Public Schools

KENTUCKY AMERICAN WATER DISTRICT SCIENCE FAIR 2026

Registration and Project Set-Up (Cafeteria/Gymnasium)	**8:00am – 8:45am**
Judge Registration (Small Gymnasium)	**7:45am – 8:30am**
Judges Orientation (Small Gymnasium)	**8:30am – 9:00am**
Judging of Projects (Gymnasium)	**Begins at 9:00am**
Discovery Zone Exhibits (Main Hallways)	**9:30am – 1:00pm**
Awards Ceremony (Gymnasium)	**3:00pm – 3:45pm**
Removal of Projects	**Immediately following awards ceremony**

KENTUCKY AMERICAN WATER

Fayette County Public Schools

AmplifyScience

Members Heritage Credit Union

Who is eligible to enter?

All 4th through 12th grade students currently enrolled in the Fayette County Public Schools or in a private school within Fayette County are eligible to enter a project. The number of projects from each school will be limited. The school science fair coordinator must recommend each project.

What kinds of projects are allowed?

Projects must be scientific investigations, not demonstrations. Collections or displays that do not involve an experimental questions are not eligible. Each project will be entered into one of the following categories:

- **Animal Sciences**
- **Behavioral & Social Sciences**
- **Biochemistry ****
- **Cellular & Molecular Biology*****
- **Chemistry**
- **Computer Science ****
- **Earth & Planetary Science**
- **Engineering**
- **Energy & Transportation *****
- **Environmental Sciences**
- **Medicine and Health*****
- **Microbiology**
- **Physics & Astronomy**
- **Plant Sciences**

****High School only Categories** ***** Middle and High School Only**

What are the entry rules?

1. The **student's teacher** must enter the Student Project Data through the **Science Fair website** by **5:00 PM on Friday, January 23, 2026 when the registration site will be closed – there will be no late entries.**

2. Private school and home school students must send completed entry forms to David Helm, Secondary Instructional Specialist, at 1126 Russell Cave Road, Lexington, KY 40505 or electronically by scanning all forms into a PDF format and emailing, no later than **5:00 PM on Friday, January 23, 2026.**

3. In grades 4-12, projects may be the work of a single student or of a team of 2 or 3 students. A student/team may enter only one project in the science fair.

4. All exhibits must be placed in and removed from the exhibit area at the times specified. **Students MUST be present for the judging.**

Neither Kentucky American Water nor the Fayette County Public Schools assume any responsibility and/or liability for loss or damage to any exhibit or part thereof; not for personal injuries to exhibitors, or other persons arising out of or related to work on, exhibiting, or viewing projects.

Who should I talk to if I have questions?

If you need more information about the Science Fair, or doing a project, talk to your science teacher or the science fair coordinator at your school. You may also contact:

David Helm, K-12 Science Instructional Specialist 859-608-3781 david.helm@fayette.kyschools.us

Office: Fayette County Public Schools
450 Park Place
Lexington, KY 40511

What are the rules for the projects?

1. The student must do all work on the project's experimental procedure, data collection, and data analysis. The judges will disqualify projects that indicate the direct assistance of individuals other than the student. Teachers, parents, or other persons may advise and provide technical assistance, but may not be involved in the actual work of the project.

2. Exhibits must fit within a space of 45 cm (1.5 ft) front to back and 75 cm (2.5 ft) side to side, and be less than 180 cm (6 ft) tall.

3. Only table space will be provided at the fair. Exhibits must be free standing with their own support.

4. If electricity is used in the exhibit, all switches, cords, and other devices must be of an approved variety. Students must supply their own extension cord, at least six (6) feet long. Electrical outlets will be available only if requested on the project entry form.

5. The student's school affiliation must not be visible until after the judging is complete.

6. Record books outlining the purpose of the project, procedures used, source of data and information, etc., **must** be available for examination by the judges. Daily/periodic logs are highly recommended as a part of the Record book.

7. Projects using vertebrates in **ANY** manner must submit Research Plan 1A and Approval Form 1B to be reviewed by the District Scientific Review Committee before any research is started by the student. Projects in all grades are prohibited from using vertebrate animals in experiments that would result in injury, discomfort or death of the organism. Use of vertebrate animals in grades 4-12 must strictly adhere to the I.S.E.F. guidelines on animal experimentation. If in the opinion of the judges a project violates this rule, it will be disqualified. (Research plans may be downloaded from the FCPS website. https://apps2.societyforscience.org/wizard/index.asp

8. According to I.S.E.F. rules, the following items **may not** be included in the project exhibit under any circumstances (**display drawings or photographs are allowed instead**):
    - Live animals (vertebrate or invertebrate), including humans.
    - Plants.
    - Preserved vertebrate animals or parts.
    - Live pathogens, microbial cultures or fungi, i.e. bread mold, etc.
    - Open flames.
    - Chemicals (even water).
    - Any other materials hazardous to the public.

    Any projects in these categories must be reviewed by the teacher before beginning research. It is recommended that students submit research plan 1A and 1B to the teacher before the start of the project. Vertebrates are subject to rule 7 listed above. Please pay particular attention to any project with human subjects, even surveys.

9. Go to the following website to view guidelines for projects involving any of the above topics. https://student.societyforscience.org/international-rules-pre-college-science-research?pid=312

10. Projects not meeting these guidelines will not be eligible to win at the District Science Fair and therefore not qualified to participate at the regional, state, or international levels.

What awards will be given?

Projects at each grade level will be judged separately. Awards will be given according to the judges' evaluation of each project, based on the criteria listed below. The decision of the judges is final. Medals, ribbons, or certificates will be awarded to all projects in each grade level/subject area category. The outstanding project in each of the grade levels and subject areas will receive special recognition. Students in grades 9-12 will be judged according to the subject area category with the outstanding project receiving special recognition. Kentucky-American Water Company will also sponsor special awards for "Outstanding Projects Involving Water Science" in each grade level 4-8 and one award for grades 9-12.

What are the judging criteria?

Entries will be judged in the following ten general areas. All participating schools have access to the judge scoring sheet that will be used.

1) **Asking Questions or Defining Problems**
   Students should be able to ask questions about the texts they read, the features of the phenomena they observe, and the conclusions they draw from their models or scientific investigations. For engineering, they should ask questions to define the problem to be solved and to elicit ideas that lead to the constraints and specifications for its solution

2) **Developing and Using Models**
   Modeling can begin with students' models progressing from concrete "pictures" and/or physical scale models (e.g., a toy car) to more abstract representations of relevant relationships in later grades, such as a diagram representing forces on a particular object in a system

3) **Planning and Carrying Out Investigations**
   Students should engage in investigations that range from those structured by the teacher—in order to expose an issue or question that they would be unlikely to explore on their own (e.g., measuring specific properties of materials)— to those that emerge from students' own questions.

4) **Analyzing and Interpreting Data**
   Data must be presented in a form that can reveal patterns and relationships and that allows results to be communicated. Because raw data as such have little meaning, a major practice of scientists is to organize and interpret data through tabulating, graphing, or statistical analysis. Such analysis can bring out the meaning of data—and their relevance—so that they may be used as evidence. Engineers, too, make decisions based on evidence that a given design will work; they rarely rely on trial and error. Engineers often analyze a design by creating a model or prototype and collecting extensive data on how it performs, including under extreme conditions. Analysis of this kind of data not only informs design decisions and enables the prediction or assessment of performance but also helps define or clarify problems, determine economic feasibility, evaluate alternatives, and investigate failures.

5) **Using Mathematical and Computational Thinking**
   There are differences in how mathematics and computational thinking are applied in science and in engineering, mathematics often brings these two fields together by enabling engineers to apply the mathematical form of scientific theories and by enabling scientists to use powerful information technologies designed by engineers.

6) **Constructing Explanations and Designing Solutions**
   Asking students to demonstrate their own understanding of the implications of a scientific idea by developing their own explanations of phenomena, whether based on observations they have made or models they have developed, engages them in an essential part of the process by which conceptual change can occur. In engineering, the goal is a design rather than an explanation. The process of developing a design is iterative and systematic, as is the process of developing an explanation or a theory in science. Engineers' activities, however, have elements that are distinct from those of scientists. These elements include specifying constraints and criteria for desired qualities of the solution, developing a design plan, producing and testing models or prototypes, selecting among alternative design features to optimize the achievement of design criteria, and refining design ideas based on the performance of a prototype or simulation.

7) **Obtaining, Evaluating and Communicating Information**
   Any education in science and engineering needs to develop students' ability to read and produce domain-specific text. As such, every science or engineering lesson is in part a language lesson, particularly reading and producing the genres of texts that are intrinsic to science and engineering.

8) **Project and Display Safety**
   All safety guidelines are met throughout the science fair process.

9) **Project Display Board**
   The exhibit is visually appealing and shows evidence of being the student's own work; information is recorded accurately and neatly.

10) **Journal or Lab Notebook Use**
   There is a written experimental record of daily observations, data collected and procedural comments and thoughts.

Suggested Questions for Judges

1. Why did you decide on this topic?
2. What is the purpose of your project?
3. What was your hypothesis?
4. Which variable did you change?
5. For each value of the variable that you changed (the independent variable), how many trials did you do?
6. What response did you observe or measure (the dependent variable)?
7. What are some of the things you were careful not to let change (the constants) as you did the experiment?
8. What procedures did you follow?
9. In your experiment, what was the control? What sample did you use to compare the others against?
10. Explain your graph or data table. What results did you find?
11. What conclusions did you draw?
12. How did your results relate to your original hypothesis?
13. If you had a mentor, in what ways did your mentor assist you?
14. What would you do differently if you were to do the project again?
15. What might you do in the future to continue your project?
16. Do you have notes or a journal that you kept regarding your project?
17. What is the most interesting or surprising thing you found out?