Science Fair

Information and Application

Science Fair
Important Dates

- Friday, January 29th-Applications due
- Tuesday, February 9th-Stokes will be open from 4:00-5:00 p.m. to set up projects.
- Wednesday, February 10th-Stokes will be open from 8:00-8:45 to set up projects.
- Thursday-February 11th-Science Fair open to parents from 1:00-2:00 p.m. Awards Ceremony for Kindergarten-Second 2:00 p.m.
  Awards Ceremony for Third-Fifth 2:45 p.m.
- Projects can be picked up on February 11th from 4:00-5:00. All projects must be removed from the gym on Thursday after the awards ceremony to set the gym back up for PE on Friday.
- The Regional Science Fair will be on Saturday, March 5th at Marian University. More information will be given to students who qualify after the school science fair.

Science Fair boards will be available to purchase at the office starting Friday, January 29th through Friday, February 5th. The cost of the presentation boards are $3.00.

Science Fair Guidelines

Choosing a science fair topic

Parents are encouraged to help guide their children through their science projects, but the majority of the work should be a reflection of the student's own design and effort. To help in this, students should follow guidelines for selecting a science fair topic.

1. Choose a topic that interests you. Think about questions that you are curious about and would like to explore.
2. Choose a question that can be answered by an experiment. Do not choose a topic that is too hard to solve or one that requires expensive or hard to get materials.
3. Consider how much time will be involved in your project. It is better to choose a shorter project and do a good job than to choose a long, difficult project and not do a good job or not finish it.
4. Avoid a project in which you spend all your time building your equipment or making your display. Remember, you still have time to do the investigation and learn about your topic.
5. No dangerous chemicals, open flames, explosives, and poisonous or dangerous animals (especially reptiles) may be exhibited. All plants must be watered and all animals must have good care.

Students may choose a project that is a demonstration or research project. These are acceptable entries into the science fair. However, the judges will be looking for science projects that use the scientific method (projects that answer a question by conducting an experiment) when choosing the science fair winners that will advance to the regional competition. To advance to the regional competition students must have a hypothesis and incorporate the scientific method.

Research Project In this type of project, you do research on a scientific topic of interest to you. Your background research should include several different sources which may include books, encyclopedias, websites, interviews with experts in the field, videos, etc. Using these sources, you create a poster of the main points of your research. You may also want to create a model or display a collection of relevant items.

Demonstration In this type of project, you demonstrate how or why something happens. A demonstration project should start with a scientific question that you are curious about. After doing research about the topic, you will create a poster and a display that demonstrates the answer.

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Here are some possible topics for science fair projects that might spark your interest or give an idea for further investigation:

Life Science

1. How does temperature affect the growth of plants?
2. How do detergents affect the growth of plants?
3. What kind of liquid helps a plant to grow?
4. How does the direction a seed is planted affect the way it grows?
5. Which type of light (artificial or natural) helps plants to grow best?
6. Under which color cellophane do plants grow best?
7. What kind of soil is best for plants?
8. Do seeds sprout better in cooler or warmer temperature?
9. Which type of wildflower grows best under artificial light?
10. How does temperature affect the water uptake in celery plants?
11. Does the type of water affect the growth of plants?
12. How does rotation affect plant growth?
13. Does music have an effect on plant growth?
14. Does a plant grow best in sunlight or artificial light?
15. Can plants deprived of sunlight recover?
16. Can potatoes be grown without soil?

If you are doing an experiment with plants, take plenty of pictures during the experimental steps. If you would win Hattie B. Stokes Science Fair and go to the Regional Science Fair, you won't be able to take your plants with you.

Physical Science

1. Which metals conduct heat best?
2. Which materials make the best heat insulator?
3. Which color of liquid absorbs the most heat?
4. How does heat affect the height at which a ball bounces?
5. How does heat affect a dry cell battery?
6. How does light affect the color of dyed materials?
7. What materials absorb sound?
8. What material works best in conducting sound?
9. How does the number of batteries affect the speed of a motor?

10. How does temperature affect the amount of heat given off by a solar cell?
11. What is the strength of a magnet at varying distances?
12. How strong are different kinds of woods?
13. Wow well do various fabrics absorb dye?
14. How does the size of a tube affect the speed of water moving through it?
15. What liquid is the densest?
16. What is the effect of salt on the boiling temperature of water?

Consumer Projects

1. Which waterproofing agent is best?
2. Which paint protects wood best?
3. Which popcorn pops the most?
4. How much water is lost by a leaky faucet?
5. Which nails have the best holding power?
6. Which paper towel is the strongest?
7. Which brand of battery last the longest?

It is more difficult to find resources for researching consumer projects.

These are just a small sample of hundreds of ideas for projects. The library contains books and information on science fair topics. Additionally, there are many websites that contain research information and ideas on science fair topics. Check out these sites, or find your own.
http://www.super-science-fair-projects.com/elementary-science-fair-projects.html
http://www.homeworkspot.com/sciencefair/
http://www.ipl.org/div/projectguide/

If you are not sure what type of project might interest your child you can go to this website and take an interest survey which will help guide your student in their project selectionwww.sciencebuddies.org On the left hand side of the website click Topic Selection Wizard and answer the questions. This will give you ideas of projects that your student might like to do.

Rules and General Information

1. No more than two students may work on a project. If two students choose to work together, they must be in the same grade and do an equal amount of work.
2. Projects can be no wider than 4 feet and no taller than 6 feet. Tables will be available for display.
3. Presentation boards must be neat and orderly. They should be well marked with graphs, information and pictures.

4. Through the fair, students will learn how scientists and researchers make discoveries using the scientific method. Therefore, each project will need to include the steps of the scientific method. Specifically:

Purpose/Problem: What are you trying to solve? What do you want to know?
Hypothesis: What you think will happen (an educated guess).
Materials: A list of all the things you need to do the project.
Procedure: A step-by-step explanation of how you carried out your project. Another person should be able to repeat your project based on your instructions.
Results: A record of your data. Make your observations clear using tables, charts, graphs, pictures, and or diagrams where possible.
Conclusion: Use your results/observations to form an answer to the problem. Was your hypothesis correct? What could you have done to make your experiment better? Did anything surprising happen?
List of Sources: What books, internet sites, magazines, etc. did you use to investigate your topic?

5. Students should be able to explain the purpose of their project, how it was developed, and what was discovered. This presentation will be given during judging and should be 3-5 minutes in length.
6. Judging will take place during the school day on February 10th.
7. Public viewing of the projects will be from 1:00-2:00 p.m. on February 11th. The award ceremony will be at 2:00 p.m. for grades kindergarten through second and at 2:45 for grades third through fifth.
8. Three award winners in grades 1-5 will have the opportunity to participate in the Regional Science Fair held at **Marian University**. Although Kindergarten is not eligible to participate at the Regional Science Fair, we encourage kindergarteners to enter the school science fair. There will be grade level awards at the kindergarten level. If a student completes a **RESEARCH PROJECT** they are not eligible for the regional science fair, but can receive grade level awards.

If you have any questions, please call or email Shannon Rustin.
Thank you for your interest in our school's science fair!
The Science Fair Committee
Shannon Rustin, teacher rustins@leb.k12.in.us 482-5950 ext. 13642

Dear Parents,

The Hattie B. Stokes Science Fair has been scheduled for Wednesday, February 10th and Thursday, February 11th. The fair is open to any student in grades K-5. The intent of a Science Fair is to help our students enjoy the process of science and discovery. The thinking skills used while doing projects are skills that we use throughout our daily lives. We encourage your help in guiding your child through their science projects, but expect the majority of the work to be a reflection of their own design and effort. Please return the completed application by **Friday, January 29th**.

Science Fair Application-Due **January 29th**

Name _____ Teacher_____

Name of Partner _____ Teacher_____

Project Title _____

Project Description_____

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Project Area: Check One

_____ Physical Science _____ Biology

_____ Space Science _____ Earth Science

_____ Consumer Science _____ Life Science

Does your project require an electrical outlet? Yes No

Circle type of Project: Experiment Research

Student Signature_____

Parent Signature_____