LAWTON
ELEMENTARY

Lawton Science Fair
April 6th, 4:30-6:00pm

Information Packet

Lawton's Science Fair is fast approaching! This year the science fair is **Thursday, April 6th at 4:30-6:00pm (open house).** The science fair is optional for attendance but a fun evening event for the whole family. The science fair is a great way to engage students in a science related project. The Lawton Science Fair plan for K-5 is below:

Kindergarten Students - Whole Class Projects with OPTIONAL individual projects if students/families choose

1st Grade Students - Encouraged Individual Projects with family support but NOT REQUIRED

2nd Grade Students - Encouraged Individual Projects with family support but NOT REQUIRED

3rd Grade Students – Famous Scientist/Inventor Research Projects (student homework with some initial support with planning)

4th and 5th Grade Students - STEAM Career/Job Projects (student homework and some class time will be provided)

You are welcome to do experiments, inventions, or research projects in a science related area. Students will have an opportunity to share their projects with their peers in the classroom in short presentations / share-outs the week of the science fair, Tuesday, April 4th through Thursday, April 6th. All projects will be displayed for family walk through tours at the science fair open house Thursday April 6th. A Book Fair will also be open the night of the science fair in the library! Science projects are not judged in competition. This is a "science expedition style" where participation and discussion is encouraged at the elementary level. The purpose and the goal is to get students interested and excited about the vast area of science.

MAKING A PLAN

How to get started:

The first thing to do is to consider what your grade level expectations are for the science fair (see above). Next figure out what you want to find out by considering what your own curiosities. What are you interested in? Electricity? Magnets? Bugs? Slime? Mold? Weather? Now is a great time to choose your topic and get started. Focus on what you love to do most and have a fun, curious attitude. Once you have that down, it's time for the fun stuff – research, questions, experimenting, and results. Use the scientific outline in the packet, follow the schedule, ask you teacher and parents for help, and go forth and investigate, experiment, and be a scientist!

ALL REGISTRATION FORMS ARE DUE FRIDAY, MARCH 17TH

Kindergarten students – all kindergarten students will participate in a whole class science fair project. Each kindergarten teacher is doing an at-school whole class project and a display board of the project will be shared at the open house Science Fair night. Kindergarten students may also do an individual project at home with families but this is completely optional. **If your child plans to complete an individual project at home, please fill out the registration form and return to your child's teacher by Friday, March 17th. Registrations are not required for the whole class project.**

1st Grade students – Science fair participation is optional. Family support is encouraged if your child is interested in participating in the science fair. **If your child is participating, please fill out the registration form and return to your child's teacher by Friday, March 17th**

2nd grade students – Science fair participation is optional but HIGHLY ENCOURAGED in 2nd grade. 2nd grade teachers are supporting the science fair project work completed at home by allowing it to be part of the homework. **If your child is participating, please fill out the registration form and return to your child's teacher by Friday, March 17th**

3rd grade students – Science fair participation is REQUIRED and all students will be using a board to showcase their research project on a famous scientist/inventor. This will be part of the homework. 3rd grade teachers are supporting the science fair project work completed at home by making it part of the homework and helping provide general consultation time with students initially for finding a topic and outlining expectations. The 3rd grade teachers will provide specifics about the expectations of this project. **Please fill out the registration form and return to your child's teacher by Friday, March 17th**

4th and 5th Grade students – Science fair participation is REQUIRED and will be part of the homework plan. 4th and 5th grade students will be completing a project related to a STEAM Career (Science, Technology, Engineering, Art, and/or Math). Additional information will be provided to 4th and 5th grade students about the requirements of that project. **Please fill out the registration form and return to your child's teacher by Friday, March 17th**

TIMELINE:

4 weeks before the fair: (NOW!) Choose a project and make a plan	1. Decide on a topic and what you want to do: an experiment, a demonstration, an invention, or a research project. Parents: Help your child pick a project appropriate for his/her age level. Be sure the project is feasible and can be completed in the time frame. For ideas you can find books on science projects in the school library, in the classrooms, at the public library, or at book stores. 2. Make an outline with time schedule for completing your project!
3-4 weeks before the fair: Prepare and start your project	1. Collect all the supplies and reference materials you will need to do your work. 2. Schedule time with outside support or family helpers depending on type of project and age 3. Consider using a science journal to keep your outline and notes 4. Start your project
2-3 weeks before the fair:	1. Work through the steps of your project, following your scheduled outline 2. Track your work by taking notes and/or photographs 3. Don't forget to take notes on your observations if you are doing an experiment 4. Describe your results
1 week before the fair:	1. Work on publishing your results in your best handwriting or typing, printing pictures if needed, etc. (all necessary things you plan to put on your science fair board) 2. Assemble your board
Monday, April 3rd	1. Final touches complete and your board is ready to bring to school
Tuesday, April 4th and Wednesday April 5th	1. Bring your board to school to do a share out with your class

Important Dates:

Science Fair Registration Forms

DUE BY FRIDAY March 17th

- Registration forms **NOT** required for **the whole class kindergarten projects**, only individual projects if your child plans to complete a project

Project DUE DATES and IMPORTANT INFORMATION:

- Individual and team projects completed will be shared with peers in share-outs in the classroom starting Tuesday April 4th, Wednesday April 5th, and Thursday April 6th. Projects should be brought in to the classroom on Tuesday April 4th if possible, and Wednesday April 5th at the latest to provide share-out time. All projects must be brought in to the school by Thursday April 6th at the beginning of the day.
- Any additional things that accompany the display board for the open house will need to be safe (no hazardous materials). **PLEASE LABEL EVERYTHING INDIVIDUALLY THAT COMES IN AS IT IS DIFFICULT TO KEEP EVERYTHING TOGETHER DURING SET-UP.** Families and students will explore on their own the night of the science fair so there is no direct supervision of individual project items during the night of the open house, please keep this in mind as you plan what items **you need** to bring in with the display board. **If you need access to an outlet or a larger space than in front of the board, please write that information on the registration form.**

Proper Display Board Layout (HELPFUL HINTS BUT NOT REQUIRED)

1. The Research Question; Your research question is what you hope to figure out. It is your "what if" question. You should be able to write the research question in a simple sentence. For example, "What happens to seeds if they are kept at different temperatures before they are planted?"

2. The Hypothesis; The hypothesis is what you expect to happen in your experiment. For the research question about seeds (above), the hypothesis might be, "higher temperatures will make seeds sprout faster."

3. The Procedure; The procedure is the plan for how you will conduct your experiment. Here are some things to think about:

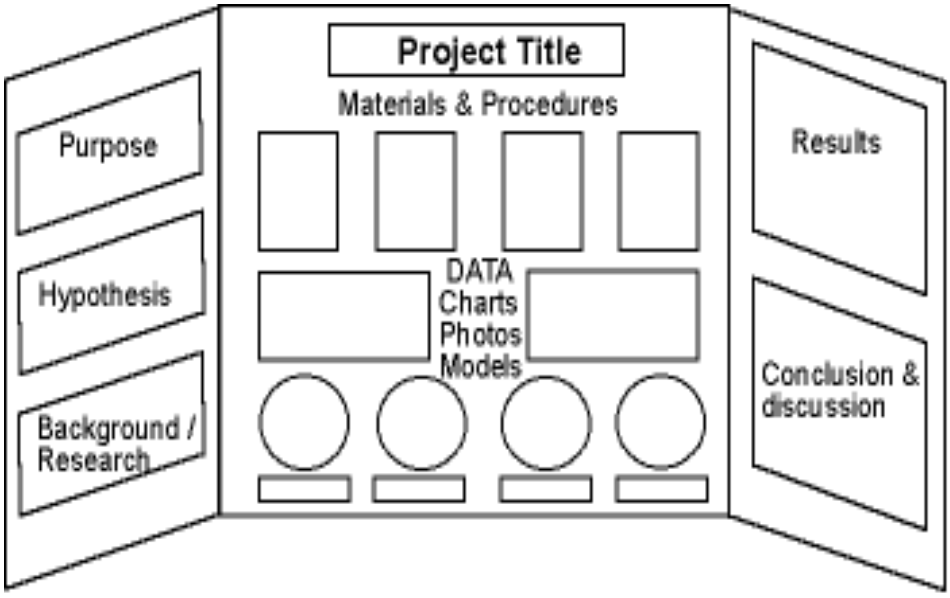
- An experiment can only have one variable. That is, you can change only one condition in each experiment. For example, with the seed experiment, the variable is the temperature at which the seeds are kept before you plant them. Keep each group of seeds at that temperature for the same amount of time. Also make sure that all the seeds get the same amount of light and water after you plant them.
- How long will your experiment take? If you only have a few weeks to do your experiment, decide on a procedure that you can carry out in that time.
- Consider your "sample size." How many seeds will you test at each temperature? Allow a big enough sample so that you can have a few duds in each group.

Once you decide on a procedure, write it down step by step. That way, you can prove what you did and can follow the same procedure if you need to repeat the experiment.

4. The Results; Results are the data, or information, that you collected. Your data should be in numbers. For example, let's say that some of your plants grew 1 centimeter the first week. Don't just write that the plants "look bigger"; write down exactly how much they grew.

5. The Conclusion; The conclusion is what you learned from doing the experiment. You might also think of the conclusion as a summary. In just a few sentences, your conclusion explains what happened in your experiment and whether it supported your hypothesis.

What if your results do not support your hypothesis? That is perfectly fine. You're not out to "prove" your hypothesis but to test it. Think along the lines of "here's what I thought was going to happen, and here's what actually happened." Then go on to explain why you think things happened the way they did.



On-Line Science Fair Resources

http://www.sciencenewsforkids.org

http://www.sciencebuddies.org/

http://www.all-science-fair-projects.com/

http://www.sciencemadesimple.com/

http://www.super-science-fair-projects.com/

http://www.terimore.com/

http://cybersleuth-kids.com/sleuth/Science/Science_Fair/Project_Ideas/

http://www.accessexcellence.org/RC/scifair.php

Lawton Science Fair Registration

Please circle: **Individual Project OR Group Project**

Student Name(s): _____ Homeroom # _____

_____ Homeroom # _____

_____ Homeroom # _____

_____ Homeroom # _____

Science Fair BOARD/LABELS

Would you like to order a display board and label pack? YES NO

(Display boards and sticker $5.00 each – please make checks payable to LAWTON PTA)

Boards ordered will be delivered to the student at school 2-3 weeks prior to the science fair date.

Our project is:

☐ An Experiment

☐ A Research Project

☐ An Invention

Important Notes:

Any additional things that accompany the display board for the open house will need to be safe (no hazardous materials). **PLEASE LABEL EVERYTHING INDIVIDUALLY THAT COMES IN AS IT IS DIFFICULT TO KEEP EVERYTHING TOGETHER DURING SET-UP.** Families and students will explore on their own the night of the science fair so there is no direct supervision of individual project items during the night of the open house, please keep this in mind as you plan what items **you need** to bring in with the display board.

If you need access to an outlet or a larger space than in front of the board, please write that information on the back of this registration form.

Special Requirements for Set-Up Space: _____

_____

Supporting Parent/Guardian signature: _____