St Jude's Science Fair 2017

Questions? Need help?

Check out our Website at
www.stjudefw.org/sciencefair

PARENTS – **SAVE** THIS PACKET OF INFORMATION!

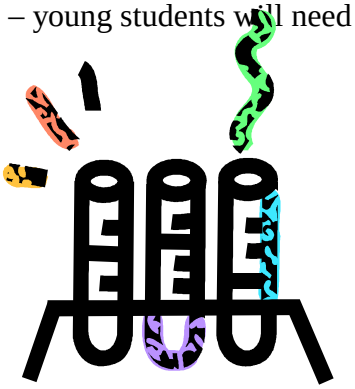
This information is designed to help you guide your student through the steps of preparing a science fair project. KEEP THIS PACKET IN A SAFE PLACE AT HOME SINCE IT WILL CONTAIN ALL OF YOUR INFORMATION. Remember, this is not your project; however, it will require your support in several ways:

- Discuss practical ideas with your student.
- Take your child to the library for research or go on-line together with your child.
- Ask questions such as "What else could you try to solve this?"
- Assist in finding materials.
- Monitor safety.
- Ask how your child will record the data collected in the experiment.
- Remind your child to go back and try to answer the original question.
- Look over the rubric (coming later) to help your child self-check that everything is completed.

Best Internet site to get you started:
www.sciencebuddies.org
Go to the "Topic Selection Wizard" – young students will need adult help

Other great Websites:

www.sciencebob.com
www.ipfw.edu/scifair
www.sciencecentral.org



Good Luck, have fun, and if you have any questions please feel free to contact one or more of us (listed below):

Ted Nitza at 471-0879 or ted.nitza@thesecantgroup.com
Dan Delaney at 420-1399 or dan.delaney@RegalBeloit.com

Week 1: Jan. 15 – Jan. 21, 2017

☐ **READ this entire packet with your family.**

- Know the requirements.
- Put important dates on your family calendar.
- Put an X or a √ on each box as you complete the job. ☺

☐ **Think of a Topic**

- If you need help, go to the "Topic Selection Wizard at <http://www.sciencebuddies.org> and answer the questions with the help of an adult to help narrow down the whole world of Science to a topic that interests you.
- Remember, a topic is only a general category of study such as physics, weather, sports, or food chemistry (and many more).
- Personal experiences, library books, science magazines such as "Popular Science" and "Ranger Rick," current events, and even commercials can provide interesting topics that could be turned into excellent Science Fair projects.

☐ **Research your topic**. Start to find out as much as you can about your topic.

- Write down key words and find out what they mean.
- Write down the sources where you find information.
- As you learn more about the topic, remember that you will want to do a test for your project to learn the answer to a question. Just writing a report is not doing a Science Fair Project.
- Be sure you know the difference between a DEMONSTRATION and an EXPERIMENT. You will want to do an experiment!
    - A DEMONSTRATION is a quick little science "show" that explains a science concept like building a model volcano and watching it erupt. It shows how something works but it is NOT a true experiment. Avoid projects like this.
    - An EXPERIMENT involves asking a question and performing an experiment or test to find the answer. Try to do a fair test in which only one thing is changed and everything else is kept the same. Don't forget to repeat the test! These will be the BEST projects!!

I like these topics:

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_____

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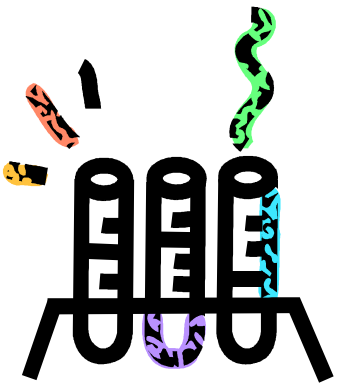


End of Week 1.

Week 2: Jan. 22 – 28, 2017

More research and gather information.

- Read! Read! Read! Find out everything you can about your topic.
- Write down everything you learn in a notebook or on your own paper.
- Write down where you found the information. GRADES 4-5 should consider including a bibliography at the end of your summary because it is important to give credit to others whose work you used.

Check more than one source:

- Encyclopedias
- Books
- Science Magazines
- Library books on your topic
- Internet websites
- Experts involved in your topic: doctors, engineers, professors, firefighters, etc.

Ask Questions

- Think of at least 3 questions about your topic. Write them all below and in your notebook.
- If you can't think of <u>any</u> questions, pick another topic!
- Decide which one of your questions could best be answered by doing a test or an experiment.
- Put a 'star' by that question.

My Questions are:

_____

_____

_____

_____

End of Week 2!!

Week 3: Jan. 29 – Feb . 4, 2017

Hypothesis time!

- Write a hypothesis by predicting what you think will happen in your experiment.
- BE SURE YOU WRITE YOUR HYPOTHESIS BEFORE YOU DO ANY TESTING!
  - Grades K-3, just write your hypothesis by saying what you think will happen.
  - Grades 4-5, be sure to write your hypothesis using the words "if…" and "then…" when explaining what you think will happen.
- Write your prediction here and later this information will go on the Science Fair board under the heading HYPOTHESIS.

My Hypothesis:

_____

_____

_____

Make a list of the materials that you will need to do your experiment.

- Be very specific!
- A good list ☺ / Not a good list ☹

A good list ☺	Not a good list ☹
6 250 ml plastic flowerpots	6 pots
2 liters of potting soil	dirt
24 radish seeds	seeds
150 ml water	water

- Later this information will go on the science fair board under the heading MATERIALS.

My Materials:

_____ _____

_____ _____

_____ _____

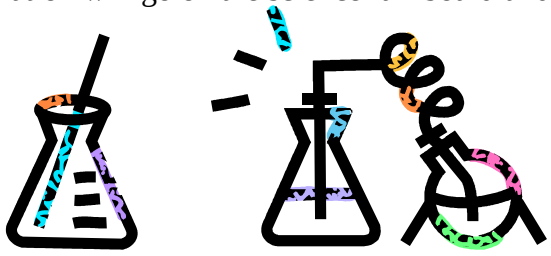
_____ _____ **More for Week 3…**

Week 3 – Continued…..

☐ **Write out the steps of your procedure** (how you are going to do the experiment.)

- Number the steps in the order in which you will do them.
- Be very clear and specific about what you will do.
- Do not include steps such as "gather materials," "get science fair board," etc. because everybody has to do those things.
- Use as many steps as <u>you</u> need to describe how you'll do your test.
- Be sure you are doing a fair test and only changing ONE thing.
- Repeat your test for accuracy.
- You may make minor changes in your procedure if you end up changing things slightly while testing. Make sure the steps you put on your science fair board are the ones you really did in your experiment.
- Write your procedure here. Later this information will go on the science fair board under the heading PROCEDURE.

My Procedure:



1. _____

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2. _____

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3. _____

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4. _____

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5. _____

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6. _____

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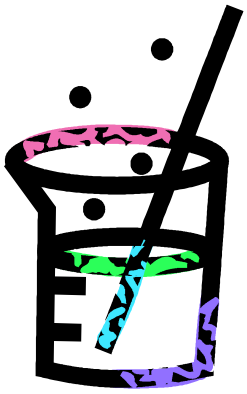
End of Week 3!!

Week 4: Feb. 5 – 11, 2017



☐ **Start Experimenting.**

- Make careful observations.
- Record exactly what you see happening in the space below, on your own paper, or in your notebook.
- Measure or weigh carefully.
- Repeat the test several times (especially if you are in grades 4-5) to be sure your results are accurate.
- If you get different results as you continue testing, don't change the earlier results. Try to figure out why they are different. Did you keep everything the same in each test except the variable you are testing?

My Results:

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☐ **Show your results on a graph or a chart.** The best ones are made by you, not by an adult!

☐ **Take pictures or make drawings** of what you see happening in your experiment. Later, your results, your charts or graphs, and your pictures will go on the science fair board under the heading RESULTS.

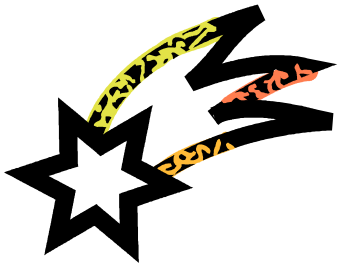
☐ **Pick up a science fair board at school.** Go to the School Library.

End of Week 4!!

Week 5: Feb. 12 – 18, 2017

Finish your project.

- Write a conclusion that tells what you learned by doing the project and that answers the question you started with at the beginning.
- Write a summary of your project.
  - Grades K-3, write a couple of sentences about your project.
  - Grades 4-5, write several paragraphs about the project in general. Describe what you were trying to find out, what you thought would happen, what actually happened, and tell what you learned from the experiment.
- Put your bibliography information from your earlier research here as well.
- Put all of this information here. Later it will all go on the science fair board under the heading CONCLUSION. If you don't have enough space to put all of this on the board, the Summary and Bibliography can be placed on the table in front of your project on paper, in a folder, or in a notebook.
- Remember, even if the results are not what you expected, DO NOT GO BACK AND CHANGE YOUR PREDICTION TO MATCH YOUR RESULTS! Sometimes we learn the most when things don't work the way we thought they would!



My Conclusion:

_____

_____

_____

_____

My Summary (use more paper if needed):

_____

_____

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_____

_____ **More for Week 5…**

Week 5 – Continued……

☐ **Put together your display board.** Here are a few ideas to think about.

- Each heading (QUESTION, HYPOTHESIS, MATERIALS, PROCEDURE, RESULTS, CONCLUSION) needs to be on the board in order with the correct information below it.
- A catchy title is a good idea, or your question can be your title.
- Use some color and consider using a border. Construction paper and gift wrap are both bright and inexpensive.
- Lay everything out first before you start to glue so you know it will all fit.
- Keep it neat! Glue sticks are kid friendly.
- Letter neatly by hand, cut out letters, use stencils, or type on a computer.
- Use graphs, charts, pictures, and/or drawings to "show" your experiment.

☐ **Practice explaining your project to an adult.**

- Grandma's and neighbors are great listeners when you're ready.
- Practicing makes it easier to talk to the judges at the science fair.
- Answer their questions in your own words.

☐ **Evaluate your own project using the scoring rubric.**

- Get a copy of the sample scoring rubric on the website.
- Have an adult help you.
- Look for common mistakes:
  - Did I ask only <u>one</u> question?
  - Did I use "if…" and "then…" in my hypothesis? (Grades 4-5)
  - Did I list <u>all</u> of my materials?
  - Did I <u>number</u> my procedure?
  - Did I write a <u>summary</u> in addition to my conclusion?
  - Did I include a bibliography of my sources? (Grades 4-5)
  - Does my conclusion <u>answer my original question</u>?

☐ **Be sure your name, room number, and grade level are on your project board.**

☐ **Smile and relax! You did it!** ☺

End of Week 5!!

Week 6: Feb. 19 – 22, 2017

Science Fair week has arrived!

☐ **Make sure everything is ready for the science fair.**

- Leave animals at home. Pictures are great. Plants are ok. Be careful with all liquids. Bring an extension cord if needed for your project.
- Protect your project with a garbage bag or other cover when you bring it to school.
- Make any last minute touch-ups on your project.

☐ **Tuesday Afternoon – Set up day after school**

- Students and adults will be available to help bring projects to the School basement.
- Talk about your project on the way home and after dinner. Talk, talk, talk.
- Get a good night's sleep!

☐ **Wednesday Morning – Science Fair Judging in the morning.**

- Students can still bring in their projects to the School basement, but all Projects must be in place by 8:00am.
- Students will be called from their classrooms when it is time to talk about their project.
- When talking to the judge:
  - Stand up straight, try no to wiggle, make eye contact, and speak clearly.
  - Know your stuff and answer questions the best you can.
  - Smile ☺

☐ **Wednesday Night – "Research Night" at St. Jude's 6:00 – 8:00 PM**

- Plan to attend Research Night!
- View all the projects!
- See all the ribbons and see the Special Awards!
- Projects may be taken home that night at 8:00pm.

☐ **Thursday Morning – Remaining Clean Up**

- Projects must be taken home (or moved to the student's classroom) by 8:30am so lunch can be served.

Northeastern Indiana Regional Science and Engineering Fair at Indiana University-Purdue University Fort Wayne will be held in March!!!

Selected projects from St. Jude will advance their projects to the Regional competition!