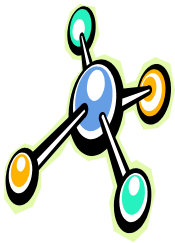


# Science Fair

## 2016

## January 25 – 29th

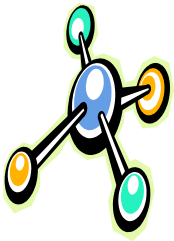
**Welcome to the Saratoga Elementary School Science Fair Information Packet.** Included you will find information about dates, logistical information, rules, how to choose a project, grade-appropriate suggestions on topics, proposal form and display board information.

**Goal:** To encourage the natural curiosity of all students through the exploration of the Scientific Method and to explore and find an answer to a question or observation – through an **Experiment** (**Investigation**), **Research Project**, or **Invention**.

The Science Fair is a chance to increase awareness and enjoyment of science and acquire a better understanding of the Scientific Process through independent learning.

The Science Fair project can be done as an individual or in a small group. We strongly encourage all kids to participate – but it is optional. This year we are encouraging Inventions and Research Projects in addition to Investigations (Traditional Experiment style).

**Students must do the work themselves, but we encourage parents to guide their child as they select, investigate, and report on their chosen area of science. The final project should be a reflection of each student's individual effort and design.**



# Science Fair

## 2016

## January 25 – 29th

**Steps:**

1. Start with thinking about a question about which you are curious – an observation about which you would like to learn more – or a problem you think you could solve.

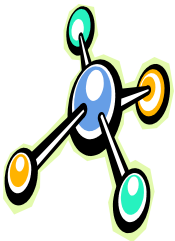
   - You may choose to do a traditional Science **Experiment (Investigation)**, a **Research Project** on a Science topic, or an **Invention**.

     - **Experiment** - the project should include the question you are trying to answer, your hypothesis, and how you propose to set up your experiment to test your hypothesis. It should also include the measure of your results, analysis of data, and a conclusion. It may also include new questions. Look through the packet for more detailed information.

     - **Invention -** you will be using Scientific Practices to develop a new product, process or teaching method. Your project should identify a problem, research existing solutions, and suggest a new solution.

     - **Research Project -** you investigate a chosen area of science. You should pick a scientific topic of interest to you that you would like to learn more about. You will learn as much as possible about your chosen topic and report your findings.

     - If you need help please - consider talking to Mrs. Silveria, Vipa Nichapanich, or Barbara Boone (sciencefair@ptasaratoga.org)



# Science Fair

## 2016

## January 25 – 29th

**Steps Continued:**

2. Attend the **Family Science Night** (in conjunction with the Family Book Fair Night) to learn more about possible Science Projects.
   **Friday, November 2nd from 6-8pm**

3. Look at the 5 step Scientific Method (listed below) and start thinking about the different resources available. The project can be as simple or as complicated as you want (or your parents will allow). Check out the resources link on the School Website under PTA – Science Fair.

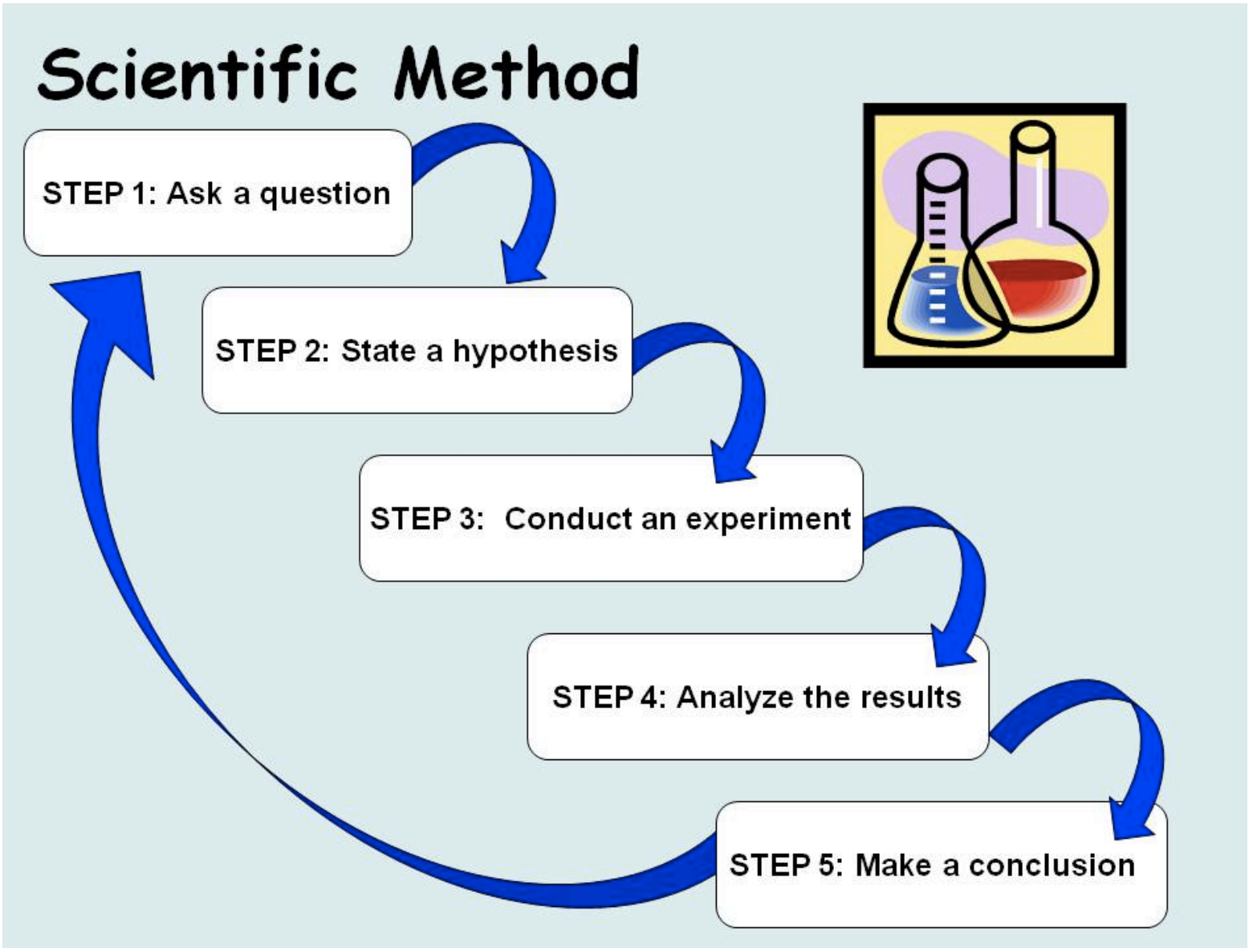
4. Review the Science Fair Packet on the School Website (PTA–Science Fair)
   - There is a lot of information about Important Dates, Safety Guidelines, Project Ideas, and Resources.
   - Hard copies will also be available in the main office.

5. The emphasis should be on **simple**; the project should be *child driven, child created, and fully understood by your child.* Ideally, the experiment or the solution should involve making observations, and recording results. Your child should understand what it is they were trying to do and be able to explain it to others.

6. When you've decided on a project:
   - Print the Proposal Form and fill it out
   - Have it signed by a parent (or other responsible adult)
   - Turn it in to your teacher

7. **The deadline for your proposal submission is Friday, November 20th**

# 5 Step Scientific Method



# A successful Scientific Exploration…

1. Ask a **Question** that begins with How? What? Or Which? Make sure it can be measured in some way.

2. Gather information about your question. **Research** in the library, the internet, ask parents, teachers, grandparents. This is *your* research.

3. Think about your question and guess at the answer. This is your **Hypothesis.**

4. Set up an experiment that will give you an unbiased answer that is clear and simple. There should only be one variable or piece of data that is the key to the experiment. This is the **Procedure.**

5. Collect all of the items you need for your invention or investigation (experiment). Be sure to ask an adult for help with chemicals, sharp edges or electricity if you need these things. These are your **Materials.**

6. Do your **Experiment.** Repeat your experiment to be sure of the results.

7. What happened? Take pictures, make drawings, or diagrams. **Keep the results** for proof. Use these in your project presentation.

8. Do you have more questions? Write them down for follow up.

9. Put your whole story onto a **display board** to share with your classmates and school at the Science Fair.

10. Was your hypothesis correct? Based on the results of your experiment or research, what is the answer to your question? This is your **conclusion.**

## Congratulations! You have completed your Science Project!!

# Saratoga Science Fair 2016
## Project Proposal Information


## Contents


# Saratoga Science Fair 2016
## Project Proposal Information

# Important Dates

## Family Science Night: Monday, November 2
Science activities located outside the library **6-8 pm**

## Final Project Proposal Deadline: Friday, November 20
Projects will be reviewed for safety and age appropriateness by Dec. 4th

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## Science Fair Day: Monday, January 25
Drop off your display board in the Library (4th and 5th grades) or Music Room (3rd grade) from **7:30 – 8:15 am**

Browsing Day for K-2 – these students will have the opportunity to look at all of the projects.

## Third Grade Presentation Day/Browsing: Tuesday, January 26
Classes present their projects to their classmates throughout the day
Classes have an opportunity to see all projects

## Fourth Grade Presentation Day: Wed. Jan. 27
Classes present their projects to their classmates throughout the day

## Fifth Grade Presentation day: Thurs. Jan. 28
Classes present their projects to their classmates throughout the day

## Family Science Fair Night: Thurs. Jan. 28
Students present science fair projects to family and friends from **6-8pm**

## Browsing for Fourth and Fifth grades: Fri. Jan. 29
Fourth and fifth grade classes have an opportunity to see all the projects

# Saratoga Science Fair 2016
## Project Proposal Information

# Frequently Asked Questions (FAQ)

**Does my child have to do a science project?** A science project is optional for all grades. Be assured that we work hard to make the Science Fair a positive experience for all children. There are no awards for "best project", just blue ribbons for everyone who participates, and we hope that your child will choose to be involved this year.

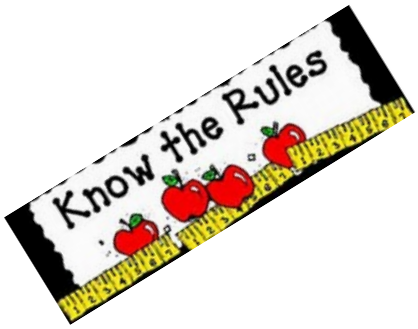
**Are group projects allowed?** Students may do projects individually or in a small group (with students from the same classroom).

**How can I help my child?** The goal is to get your child to choose a simple question about a topic in which he or she is interested. The emphasis should be on simple; the project should be child driven, child created, and fully understood by your child. They may choose to do an experiment, research a science topic of interest, or try their hand at inventing something new. Try to guide your child to a project that is in their area of interest yet within their grasp to complete with your assistance. It is also helpful to continually remind yourself that this is your child's project, not yours!

**How do we choose a project?** There are many ways to choose a project. You could start by sitting down with your child and discussing what they have been doing in class for science. You could think back to some of the why and how questions they have asked recently. You could look through the ideas that we provide later in this document. Finally, there are hundreds of science fair project books out there, but please only use them as a starting point. Your child's own imagination is a better source of inspiration. Remember, **simple is best**. Please feel free to contact Mrs. Silveria, Vipa Nichapanich or Barbara Boone for help with ideas. (sciencefair@ptasaratoga.org) Also, check out the Resources section in the PTA Science Fair website.

**How complex can the project be?** Your child should understand what it is they were trying to do and be able to explain it to others. The information in the display can be done by hand, or computer generated, depending on your child's age and inclinations. The complexity of the topic should be grade level appropriate, and you can let your child's interests and abilities guide you on this.

**What are the expectations for the students?** **KEEP IT SIMPLE!!** The proposal needs to be detailed enough to make it clear that your child understand the procedure, and that it is reasonable to believe it can be accomplished given the time and materials available. This should be around one page long, typed or very neatly hand-written. ***All project ideas need to be approved by a parent and Mrs. Silveria***




# Saratoga Science Fair 2016
## Project Proposal Information

# Rules for Projects

1. Displays should not take more table space than 30" wide by 14" deep. This is the amount of table space taken up by a standard size ***project board*** (labeled: 36" X 24" folded, 36" X 48" flat) when it is standing open.

2. **No matches, fire, glass, live animals, weapons or toxic substances. Avoid materials that are valuable, breakable, or hazardous. Avoid any unsteady displays. Animals can be used in the experiment (e.g. "what is my cat's favorite food"?) but not in the display.**

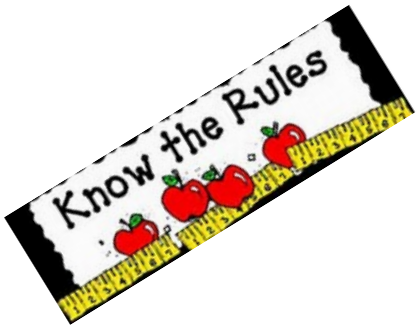
3. There are a very limited number of electrical outlets available. You need to make advance arrangements and **provide your own extension cords** to use electricity.

4. Photos, graphs, charts and other visual displays always make a project more interesting.

5. Be sure the names of all the students who worked on the display are clearly shown. **Participant name, grade, room and teacher must also be written in large letters on the upper part of the back of the project board for retrieving it when folded.**

6. Be sure all written parts are clearly displayed, neat and legible.

7. If you did an i*nvestigation,* be sure it includes the following, and that they are clear on your display:
   a. Background information that led you to your question
   b. The question you are trying to answer by your experiment
   c. Your hypothesis – what you predict will happen when you do the experiment or how you believe your invention will work.
   d. The materials and equipment you used
   e. Your method – exactly what you did. Details should include how much of any substance that you used, what you measured, etc
   f. Your results
   g. A discussion of why you think you got the results that you did, and whether or not your hypothesis was correct or your invention worked.
   h. A list of all of the references that you used in planning and doing your project.

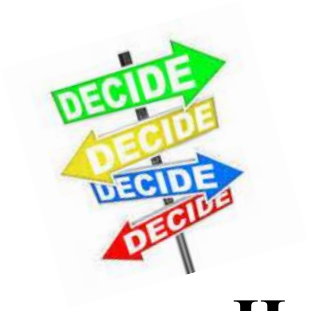



# Saratoga Science Fair 2016
## Project Proposal Information

# Rules for Projects

8. If you created an invention, be sure it includes the following, and that they are clear on Your display:
   a. The problem you are trying to solve with your invention.
   b. How other people have tried to solve this or a similar problem. How is yours different?
   c. Your design – this can be a model or a prototype. If a model, explain why you think this will work if you really build it.
   d. The materials and equipment you used.
   e. The data you collected to show that your design works (or that it doesn't). Highlight data if it shows your solution works better than what is currently used.
   f. A discussion of why you think you got the results that you did, and whether or not your design can be improved.
   g. A list of all the references that you used in planning and doing your project.

9. A project board is not required for a research project, although a visual element (pictures, charts, or graphs) is recommended.




# Saratoga Science Fair 2016
## Project Proposal Information

# How to Choose your Science Project

1. Brainstorm on all the topics you are interested in. At this stage, do not eliminate anything as being impractical. Make a list. Take a look at the Science Interest Survey on the website.
2. Think about each topic on your list in turn. Are there any questions you have wondered about regarding any of these topics? Is there a problem involving your topic that you think you could solve? Decide whether to do an **investigation (answer a question)** or an **invention (solve a problem)**. Or do you want to learn more about a scientific topic?
3. Start to narrow down your questions to things you could realistically answer given what you have at hand and what you know is possible. Avoid "why" questions.
4. For either an investigation or an invention.
    a. Keep it relatively **simple.**
    b. If you are working in a group, you all should be involved in the design, and execution of the project.
    c. Run your design by your teacher, a parent, Mrs. Silveria and listen to their suggestions. The final design is yours.
    d. If practical, collect data on your investigation or your invention at least two times to ensure that the results are reproducible and consistent
5. For an investigation:
    a. You need to **make observations** and **record them.**
    b. You need to **measure** something.
    c. You need to **compare** at least two things. Most experiments need a **control,** which is the base result to which you compare your results.
    d. For example, if your question is "What is my cat's favorite food?" your control would be her usual food, and then you could try giving her three or four other foods to compare to her usual. You could measure time (how fast does she eat each food?), or quantity (if given the same amount of each kind, how much of each does she eat, by volume or weight?). You could set out all the kinds at once and see which she goes to first, or do a different one each day and see how much is left after an hour.


# Saratoga Science Fair 2016
## Project Proposal Information

# How to Choose your Science Project

6. Your experiment could also take the form of an ***invention*** to solve a problem you are interested in. An example might be designing a way to keep a glass from breaking if you drop it, or a way to float your bowling ball in the swimming pool or something equally challenging.
    a. How can you be sure your invention works? **Collect data** to be sure.
    b. Does your invention work better than what is currently out there? Is it stronger? Is it lighter? Does it cost less? Is there a way to **compare** data from your design against a control?
    c. How can you **convince** your classmates that your invention works? Can you take pictures? Can you demonstrate it? Can you present your data in a table or graph?

7. You may also choose to do a research project on a science topic. An example might be learning more about the Pacific Garbage Patch, or what effect the drought in California is having on the land.

# Saratoga Science Fair 2016
## Project Proposal Information
# Project Ideas for Grade 3

Participation in Science Fair is strictly voluntary, but we hope your child will give it a try! **Whatever the topic, it should be something they can understand.** It should be their project, at their level, and not something really cool that is way above their level of comprehension.

**Possible topics are listed below. Do not feel constrained by this list. Go for whatever topic is interesting to your child**.

1. Make a collection of seeds from the neighborhood, and figure out what plant they came from, or how they most likely spread (wind, sticking to fur, being eaten, etc)
2. Collect leaves and look at them closely. See what they have in common and what is different.
3. Look for examples of food chains in your neighborhood, and write about them. Examples might be seed-mouse-hawk, or worms-birds-cats, or many others.
4. How we grow and change – make tracings of hands or feet of people in your family and see how much they differ in size.
5. Fossils – make a footprint in wet sand, then pour Plaster of Paris into it to make a cast of your foot. Or cut up a plastic dinosaur and mix it into Plaster of Paris for your child. Let her then chip away the plaster like an archaeologist would do to recover the pieces.
6. Make a salt solution then let the water evaporate and see if you get all of the salt back.
7. Collect up some baby teeth that you or your friends have lost. Soak them in coke, milk or juice and see what happens. Try coating them with a fluoride toothpaste first and then put them into the drinks and see what happens. If you don't have baby teeth available, you can do this with eggs, too; the calcium in the eggshell is a model for the calcium in the enamel of your teeth.
8. Set up a bird feeder. Use different kinds of bird seed, and see if different birds come, or if there are a lot more birds with one particular kind.
9. Do a similar thing with your pet – see what is their favorite food, or flavor of water. See if putting food coloring in their food or water affects whether or not they like it.
10. Make different types of paper airplanes and see which design flies the farthest (or which type of paper works best.)
11. Mix different liquids at home with baking soda and see which make it fizz the most.
12. See what brand of popcorn pops the best.
13. Experiment with ingredients to make the fluffiest, most delicious cake.
14. Gather a variety of balls. See which ball bounces highest. Experiment with different surfaces to see how the height of the bounce is affected.
15. Use thermometers and different sheets of construction paper to see how different colors react to heat. Place the thermometer under a piece of colored construction paper and leave in direct sun for 10 minutes. Record the temperature, and repeat with different colors. Record and assess your results.

# Saratoga Science Fair 2016
## Project Proposal Information

# Project Ideas for Grades 4-5

Participation in Science Fair is strictly voluntary and projects may be done individually or in a small group.
The suggestions below come from topics in the science curriculum for each grade. The lists should serve as a source of ideas, but should not be limiting in any way. Anything of interest to the student can be used as the basis for a science project.

The student needs to think of a question, predict the answer, measure something quantitatively (not just "more" or "faster"), and present the results. **The emphasis is on designing an experiment using the Scientific Method.**

The following criteria should be used to evaluate projects in Grades 4 and 5:

1. Is the question to be answered clearly identified?

2. Is it clear what data are to be observed, and recorded, and that the students know how they are going to do this?

3. If applicable, is a control group identified? Students may need guidance on what an appropriate control group would be, so feel free to suggest one.

4. Is the experiment doable? Will it answer the question that the student has posed? If it is too diffuse, suggest ways to narrow it down. A common error is trying do too much, resulting in not achieving a specific answer, or answering a different question than you posed initially.

5. Related to #4, are the materials available? Has the student thought this through? Use your judgment on whether to raise these sorts of questions.

6. We would like to avoid simply duplicating something from a science fair book; if the student has picked an idea from a book, we'd like them to then also do a variation on that project as the "experiment" versus the book's way as the "control".

# Suggestions for Grade 4


1. **Rocks and Minerals**
   a) Try a variation on the crystals we made in class (borax snowflake). Predict how the changes will affect the final result.
   b) Get small samples of various minerals that you don't care about keeping. Test what happens to them if soaked in vinegar, or water, or whatever.
   c) Read about Moh's Hardness Scale, and test your minerals and other items at home to rank them on this scale.

2. **The Shape of the Land**
   a) Make a model out of wet sand, or plaster, or perhaps clay, of a mountain or valley. Find some ways to see how water or wind can change the shape, either as gentle rain, flood, constant flow like a river, etc
   b) Look around the landscape in Saratoga or wherever you go for vacation. Find examples of erosion. See if you can figure out why certain areas erode and others don't (soil vs. rock, vegetation cover, steepness of slope, whatever)
   c) Build small structures from various materials such as brick, wood, stones, whatever and then subject them to an "earthquake". See which structures hold up best; see if you can predict which is best.

3. **Ecosystems and Food Chains**
   a) Take four feet of string, and go to several different habitats around Saratoga and mark off one square foot. Explore that area, and catalog the creatures and plants that you find. See if you can predict what you find before you start.
   b) Set up a mini-ecosystem at home with small creatures such as roly-poly bugs, crickets, snails, etc. See if you can figure out everything they need to survive and thrive, and sustain it for at least several weeks. THIS WOULD NEED TO BE STARTED ASAP.
   c) Observe the life cycle of some fairly rapidly cycling plant or animal (radishes, mealworms, brine shrimp, whatever strikes your fancy); see how temperature or amount of light, or how much water, affects the speed of the life cycle. You'll need to start this one very soon if you want it finished by early February.
   d) Test whether an animal (your pet, insects you catch or buy, your little sister, etc.) has a color preference, and thereby proving if they can see color. Add different colors of food coloring to the same type and amount of food, and see if the animal consistently chooses a particular color or colors to eat first (you should do this at least 4-5 times to be sure it is consistent; use the same food without any added color as the control).
   e) Test whether a kind of insect/invertebrate (roly-poly bugs, earwigs, snails, crickets or mealworms, for example) prefers light vs. dark, by making one end of the habitat dark and one in the light (or do warm/cool, or two kinds of bedding, or whatever).

# Suggestions for Grade 4

## 4. Electricity and Magnetism


a) Using iron filings, magnets and tracing paper, draw the force lines you see with different configurations with the magnet; after you have done the first one with a single bar magnet as the control, try to predict what the force lines will look like with different shaped magnets or combinations of magnets.

b) Use different materials to rub on balloons and try and generate static electricity; see if you can make the balloons repel or attract, and whether you can predict in advance which way the balloons will go with the different materials.

c) Use a coil of wire and a moving magnet to produce electricity. Try different kinds of wire and see which works best.

# Suggestions for Grade 5


## 1. Circulation and Respiration

a) Measure your heart rate and respiratory rate (breaths per minute) before and after particular exercises, or measure them for different family members and see how they vary with age, weight or whatever. Use your imagination!

## 2. Digestion and Excretion

a) Measure how much you drink in a day, and/or how much urine you make in a day. Do it for several days and see if it stays the same. (ask your mom before doing this one)
b) Using iodine as a marker for starch, see how long your saliva takes to eliminate the starch in different foods such as bread, potatoes, crackers, etc

## 3. Animals and Life cycles

a) Observe the life cycle of some fairly rapidly cycling plant or animal (radishes, mealworms, brine shrimp, whatever strikes your fancy); see how temperature or amount of light, or how much water, affects the speed of the life cycle. You'll need to start this one very soon if you want it finished by early February.
b) Test whether an animal (your pet, insects you catch or buy, your little sister.) has a color preference, and thereby proving if they can see color. Add different colors of food coloring to the same type and amount of food, and see if the animal consistently chooses a particular color or colors to eat first (you should do this at least 4-5 times to be sure it is consistent; use the same food without any added color as the control).
c) Test whether a kind of insect/invertebrate (roly-poly bugs, earwigs, snails, crickets or mealworms, for example) prefers light vs. dark, by making one end of the habitat dark and one in the light (or do warm/cool, or two kinds of bedding, or whatever).

## 4. Astronomy / Space

a) It would be very hard to do an actual experiment involving this topic.
b) You can do some gravity experiments, such as measuring how fast things fall or how hard they hit the ground, or altering the center of gravity for something.
c) You could test whether it is light enough to read a book outside by moonlight during different phases of the moon (only works if it isn't cloudy; wait long enough for your eyes to adapt to the dark).

# Suggestions for Grade 5


## 5. Matter and Energy

a) Measure the density (specific gravity) of liquids at home using a weighted straw and seeing how far down it floats in the liquid. Perhaps check the density of a salt solution at progressively stronger concentrations
b) Make a mixture of a bunch of stuff from home and then figure out a method to separate them back out. Write up the method before you try it as your "question".
c) Use a cabbage juice indicator to check the acidity/pH of liquids at home. Predict before you start which ones will turn pink or blue (your "hypothesis").
d) See which liquids at home react with baking soda. Figure out a way to measure how much gas the reaction makes. Predict which will react.
e) See which metals rust/otherwise react with vinegar (nails, screws, coins, etc). See if they need air to react by submerging them in the vinegar vs. putting them on a paper towel soaked in vinegar. You could also use lemon juice, rubbing alcohol, etc.
f) Measure how much the freezing or boiling point of water is affected by specific amounts of salt. See if the amount of salt added correlates with how much the temperature changes.

## 6. Water cycle and use of resources

a) Pollute some water by mixing in nasty stuff then try to purify it. Try filtration, evaporation/distillation, adding activated charcoal or alum, whatever you like. Predict in advance what will work.

## 7. Air pressure, Weather

a) Test different airplane designs to see which flies the best. There are many ways to measure lift. Use air pressure to propel something and measure how much pressure it takes or how much you can generate.
b) Measure the temperature, air pressure (with a barometer), humidity, and/or amount of rainfall at your house and compare them to the weather report on the TV or newspaper; do this over several weeks.
c) Use a rectangular tub of cold water with a Ziploc of ice at one end and a Ziploc of hot water at the other end. Your sink or bathtub would work if you promise to clean it out afterward, or any reasonable size plastic tub. Drip a small amount of food coloring at one end (or one color at each end) and watch the convection currents. Describe what happens to the color, and predict how long it will take for the water to be all one color. Do it several times. This is a model of deep ocean currents, and of many weather phenomena.

# Saratoga Science Fair 2016
## Project Proposal Form - Grades 3-4-5

**Name(s)**:_____

**Parent Name and email:** _____

**Teacher**:_____

**Name of Experiment/Research/Invention**:_____

**Question /Problem your invention may solve:**

_____

**Hypothesis/ Why do you think your invention will work?:**

_____

_____

**Proposed Experiment/Research/ How you build your Invention**:

_____

_____

_____

**What will you measure to see if your experiment / invention works?:**

_____

_____

**Do you need an electrical outlet?** Yes or No (circle one)

**Do you have any other special requirements?** (explain on back if necessary)_____

_____

**Parent approval:** _____

**Mrs. Silveria approval**:_____

***IMPORTANT:*** ***Please refer to the example science project proposal that appears on the next page.***

**<u>Remember</u>: No matches, fire, glass, live animals, weapons or toxic substances. Avoid materials that are valuable, breakable, or hazardous. Avoid any unsteady displays.**

# Saratoga Science Fair 2016
## Project Proposal Information

**EXAMPLE OF A**
**SCIENCE FAIR PROPOSAL**

**THIS IS THE LEVEL OF DETAIL WE ARE LOOKING FOR…**

**Name(s)**: Karen P
**Parent Name and email:** Chloe Patterson cpatterson@mail.com
**Teacher**: Mrs. Smith
**Name of Experiment**: Borax crystals gone wild

**Question**: What effect will adding different chemicals to a borax solution have on the crystals that form when the solution is cooled?

**Hypothesis**: Adding other chemicals that also form crystals will change the shape of the final crystals that form when the mixed solution is cooled. Adding chemicals that are colored will make the borax crystals colored.

**Proposed Experiment**:
My control will be to add five tablespoons of borax to two cups of boiling water and make it dissolve. I will suspend a j-shaped piece of pipe cleaner in the solution and allow it to cool to room temperature. Twenty-four hours later I will remove the pipe cleaner from the solution. These crystals will be my control.

I will then set up exactly the same conditions in other jars, except I will add 2 tablespoons of an additional substance to each one. I will try: sugar, table salt, baking soda, orange juice and Epsom salt. I will do each substance twice to verify whatever effect I see is reproducible.

I will then compare the crystals from each of the experimental jars with those formed under the control conditions, and see if my hypothesis was correct.

**Do you need an electrical outlet?** No
**Do you have any other special requirements?** None

**Parent approval:** _____

**Mrs. Silveria approval**:_____
(Approval necessary).

# Saratoga Science Fair 2016
## Project Proposal Information

### DISPLAY BOARDS

Below is an example of the sorts of headings and information to put on your Science Fair Display Board:

- Title
  - Be sure to include the student name(s), grade(s), and room number(s).
- Purpose
  - The question you are asking.
- Hypothesis
  - What you thought would happen – your "guess".
- Materials
  - Description of Materials used for the science project.
- Procedure
  - Part of this should involve measuring something.
  - Qualitative (rather than quantitative) measurement is ok for younger grades.
- Background
  - Summary of the research you did to help you understand the topic and plan the project.
  - Includes list of references that you used.
  - Younger grades could skip this section.
- Results
  - Your observations of what happened.
  - Best to include charts and/or tables.
- Conclusions
  - What you learned.
- New Questions (optional)
  - What you might want to know next.

# Saratoga Science Fair 2016
## Project Proposal Information