

Ideas for Science Fair Projects

taken from The Georgia Science & Engineering Fair

<http://www.georgiacenter.uga.edu/ppd/courses/academic-special-programs/georgia-science-and-engineering-fair>

Note: These are projects that students have entered. Some topics are good choices, others poor.

Beginning Project Ideas arranged by Category

*denotes more difficult projects

Behavior and Social Sciences

Do babies prefer a familiar or unfamiliar toy?

Jelly bean preference.

Does petting an animal affect your pulse rate?

How people stand on a bus.

Homo sapiens at the zoo.

Missing children: do pictures on milk cartons really help?

School subject preference between boys and girls.

Colored cookie comparison.

A study on the usage of left turn signals at intersections.

Who knows the metric system best?

Working vs. non-working parents: effects on kids' grades.

Effect of student seating on academic performance.

Does the level of noise affect eye-hand coordination?

Assertiveness: are there differences between junior high boys and girls?

Synergy: do we hear colors?

Does heart rate change while watching emotionally-charged movies?

Does your pulse rate go up when you see money?

Does color affect taste?

Music and math - how do they mix?

Tennis: which point wins?

Reading and remembering with different colored paper - which works best?

What type of people do graffiti?

The space between two people when they meet.

Does a blindfolded person walk in a circle?

The relationship between age and response time.

Can you recognize your own profile?

Left-hand, right-hand transference using a mirror tracing.

How do people react when seeing a teenager shoplift?

Are people biased towards types of vitamins?

Does chewing gum affect students in a testing situation?

Does age affect short-term memory?

Student attitudes concerning an AIDS patient in school.

Racetrack accidents: does a jockey's fall affect his/her performance?

Are there similarities between an owner and his/her pet?

Can the use of a computer game increase memory?

Audio memory vs. visual memory.

Are fads cyclical?

Should stop signs be red and white?

Is there a relationship between cost and perceived print quality?

Dumb blonds: rumor or reality?

Comic books - are they becoming more corrupt and violent?

How does our vision affect our taste?

Do adults know U.S. geography?
Are people biased toward types of vitamins?
Are there similarities between an owner and his/her pet?
Can the use of a computer game increase memory?
Can you recognize your own profile?
Monkeys and people at the zoo.
Frequency of cricket chirps vs. air temperature.
Can hermit crabs distinguish different types of music?
Territorial habits of goldfish.
Do dogs prefer to eat from a familiar or unfamiliar dish?
Which sugar do ants prefer?
The hearing sensitivity of goldfish.
Boa constrictor responses to false prey.
Will a chicken lay more eggs with rock music playing?
Cage size and nesting habits of zebra finches.
Can an earthworm learn?
The learning behavior of fish through a two-dimensional maze.

Microbiology

Which type of bread molds fastest?
Do pyramids preserve food?
Decomposition of leaf litter.
How fast does the Volvox spin?
Effects of temperature on bacterial growth in buttermilk.
Effects of acid on Euglena.
Does phytoplankton grow better in warmer or colder temperature?
Can Euglena be trained by conditioning?
How much of an apple is water?
Methods of controlling algae growth in waterbeds.
Variance in the size of Euglena.
Does diet affect the color of Paramecium.
Effect of water pollution on shrimp growth.
Study of marine growth on various surfaces.
Botany
Under which thickness of plastic do radishes grow best?
Distribution of dandelions in an open lot.
How much weight can a growing seedling lift?
Under which color cellophane do plants grow best?
Acid rain effects on radishes.
Does acid rain affect the germination of seeds?
Can you give a plant too much fertilizer?
Do seeds sprout better in hot or cold climates?
The effects of rootbouding on plant growth.
Does the phase of the moon affect the germination of seeds?
Effect of artificial vs. natural light on plants.
Relationship of root length to plant height.
Germination rates of pumpkin seeds.
Do avocados ripen more evenly with stems left on?
Does aspirin prolong the life of cut carnations?
How does increased gravity affect the growth of plants?
Does a magnetic field affect the growth of beans?
Does radiation affect the germination of lima bean seeds?

Which banana has the most sugar- green, yellow, or brown?
How detergents affect the growth of algae in pond water.
How various vitamins affect root growth.
Does electricity affect the growth of beans?
Which mulch is best for conserving water while growing plants?
How detergents affect the growth of plants.
Does leaf surface area affect plant growth?
How salt tolerant is ice plant?
Effect of cigarette smoke on plants.
Do lawns grow in a linear function?
Comparing the moisture content of five varieties of apples.
Leaf size vs. location.
Does Instant Grow really work?
The action of tendrils.
Does Oxygen Plus affect plant growth?
Does carbon dioxide concentration affect the growth rate of plants?
Vegetation rebound following a brush fire.
Effects of the environment on popcorn (heat, cold moisture, time, etc.).
Do mirrors affect the way plants grow?
A study of marine growth on various surfaces.
Comparing the moisture content of five varieties of apples.
Do avocados ripen more evenly with the stems left on?
Do mirrors affect the way plants grow?
Does acid rain affect the germination of seeds?
Does electricity affect the growth of beans?
Effect of cigarette smoke on plants.
Effects of the environment on popcorn (heat, cold, moisture, time, etc.).
How detergents affect the growth of algae in pond water.
How detergents affect the growth of plants.
How the amount of light affects the growth of marigolds.
Leaf size vs. location.
Testing different potting soils.
Under Which thickness of plastic do radishes grow best?
Which banana has the most sugar - green, yellow, or brown?
Which mulch is best for conserving water while growing plants?
Carrot cloning.
Do low voltage electrical fields affect the growth of ryegrass?
Effects of physical factors on oscillatoria gas vacuoles.
Ration difference in male-female moss plants.
Salinity effect on leaf elongation.
What are the effects of various artificial hormones on different plants?
Will electric voltage affect the growth rate of algae?

Chemistry/Biochemistry

The pH of soaps.
What are the differences between butter and margarine?
Corrosion - the effects of water on metal.
Ink evaluation with paper chromatography.
How do ultraviolet sterilizers affect the rubber straps on safety goggles?
Can salt water be desalted by freezing?
Epoxy and resins: their resistance to solvents.
What is the (starch, sugar, fat, or protein) content of various foods?

Effects of permanent hair color on normal hair.
How much oxygen does a candle use per minute?
Measuring the calories in a peanut.
How sucrose and yeast levels affect the rate of fermentation.
Chlorine levels in our drinking water.
The effects of swimming pool water (chlorine) on hair.
Testing sugar in soft drinks.
Comparison of vitamin A in frozen, canned, and fresh peas.
Testing various orange drinks for vitamin C.
How teeth react to different liquids.
Smoking alternative: clove cigarettes.
The amount of dissolved salt in drinking water.
Chlorine levels in our drinking water.
Corrosion - the effects of water on metal
Epoxy and resins: Their resistance to solvents.
How sucrose and yeast levels affect the rate of fermentation.
Measuring the calories in a peanut.
Smoking alternative: Clove cigarettes.
Testing sugar in soft drinks.
Testing various orange drinks for vitamin C.
The amount of dissolved salt in drinking water.
The effects of swimming pool water (chlorine) on hair.
Waterproof mascaras - are they really waterproof?
Which metals make the best batteries?
Are chemical fumes a threat to contact lens wearers?
Chemical effect of antiperspirants on pH levels of human perspiration.
Chloride ion concentration and bacteria in a swimming pool.
Color stability of FDA-approved tinted soft contact lenses.
Comparing protein content between hydroponic and terrestrial plants.
Comparison of vitamin A content in frozen, canned and fresh peas.
Effect of irradiation on chlorophyll content of Beta chilensis.
Factors affecting burning rate and temperature of solid rocket propellants.
Fastness properties of natural dyes on mordanted and unmordanted wool.
How effective are radioactive decontaminants?
Light-enhanced electroplating.
Photochemistry: Factors influencing photolithography.
Relationships between the mass and charge of dye molecules.
What are the effects of hypertonic solutions on red blood cells?

Computers

A homemade computer.
Prism simulation.
An inexpensive computer-controlled robot.
Writing an Applesoft BASIC program that plays checkers.
Can I create a unique historical adventure game?
Zoom in! A computer map of my neighborhood.
Electron orbitals on a computer.
Hacker protection.
A computer program that teaches science facts.
Using a computer for mineral identification.
A computer program that tracks satellites.
A program that simulates model rocket trajectories.

Convert to or from metric instantly!
A computer program that finds the planets.
A character editor for Atari computers.
A graphing utility.
A text encryption system.
Aid for finding the centroid of two dimensional rectangular shapes.
An easy-to-use graphics editor.
Computer analysis of billiards.
Computer graphic representation of celestial body motion.
Computer-aided design and simulation of digital circuits.
Computerized tomographic scanning.
Digital voice.
Easy-to-use graphics processor.
Education computer-aided musical notation.
Exploring the frontiers of artificial intelligence.
Geometry proofs in logo.
Graphic shaper: How to simplify the making of shape-tables.
Hacker protection.
Intelligent recognition of English by computer.
Mathematical optimization of uniform partition search strategies.
Microcomputer programs for the blind.
Music maker.
Poster maker.
Prism simulation.
Probability distribution of a random number generator.
Projectile motion physics tutor.
Simulation of a vehicle moving on a rough road.
The conservation of energy and momentum in an elastic collision.
Writing an Applesoft BASIC program that plays checkers.

Consumer

*Which solar panel is most efficient?
Can a roof overhang cut summer cooling costs?
A comparative study of various packing materials
How much money can a pool cover save?
Which candle is best to buy?
*Which light bulb is most efficient?
Are TV commercials louder than regular programming?
Think up your own special project
The frequency and length of TV commercials during a one-hour program
Which battery is the best buy?
How much does it really cost to run a refrigerator?
Which detergent removes grass stains best?
Which detergent cuts grease best?
Which detergent has the longest-lasting suds?
The effectiveness of pre-wash products
Waterproofing agents - which is best?
The effects of deodorants on clothes
Which paint protects wood the best?
The effectiveness of different wood preservatives
*Shampoo evaluation
*Water solubility of suntan lotions

*Meat, fat, and moisture content of hot dogs
*Do sausages vary in fat and water content?
Which popcorn pops the most?
Up to bat - wood or aluminum?
Fishing lines take the strength test
*Sole traction - which sole is best?
*Skateboard wheels - which are best?
Leaky faucets - how much do they cost us?
Which uses more water, a shower or a bath?
Which container (or wrapping) preserves food best?
Which paper towel is more absorbent?
Which diaper is best?
Which lighter has the most fuel?
Comparison of locks-which is best?
Which nails have the best holding power?
*The best air pressure for an A.T.C. (3-wheeler)
How long are yellow lights at various intersections?
Do parking meters give us the right time?
Liquid vs. bar soap.
Is there sugar in toothpaste?
Which tent stake has the greatest holding power?
Does temperature affect the output of a battery?
Effect of detergents on commonly-used threads.
The effects of washing in dyed materials.
Hardest and softest woods.
Which battery is the best buy?
Which detergent cuts grease the best?
Which nails have the best holding power?
Effect of some exterior wood protectants on cedar siding.
The effects of deodorants on clothes.
The best mix for concrete.
Which sleeping bag fabric retains heat the best?
Endurance of roofing shingles and tiles.
Which hook and loop fastener works the best?
The feathers of archery.
How effective are commercially-produced water filters?
Which glue is the strongest?
Which wood absorbs paint the best?
Which container (or wrapping) preserves food the best?
Are flame-retardent fabrics safe?
The effectiveness of pre-wash products.
The effect of different fin shapes on surfboard performance.
Do swimming caps help you swim faster?
Testing sunscreens' absorption of ultraviolet radiation.
How different fabric-care treatments affect the flammability of cloth.
Waterproofing agents - which is best?
The spoilage rate of different types of baby food.
Which detergent has the longest-lasting suds?
How well do various fabrics absorb dye?
How much money can a pool cover save?
Which light bulb is most efficient?
Can a roof overhand cut summer cooling costs?

Waterproof mascaras - are they really waterproof?
Which firewood gives the most heat per dollar?
Which stain remover works best?
Are TV commercials louder than regular programming?
How much does it really cost to run a refrigerator?
Which solar panel is most efficient?
Which paint protects wood the best?
Thick or thin bicycle tires - which is best?
Which fabrics are most fire resistant?
How heat affects recording tape.
Stability of color slide film.
A comparative study of various packing materials.
Do oil additives reduce friction on engine parts?
Which toothpaste is most abrasive?
How fire affects roofing materials.
Which detergent removes grass stains best?
Airplane noise analysis in my neighborhood.
The effectiveness of different wood preservatives.
Antifungals: how well do they work on athlete's foot?
Meat, fat, and moisture content of hot dogs.
Strength test for glues.
Water solubility of suntan lotions.
The power output of different model airplane fuels.
Shampoo evaluation.
Which diaper is best?
Effects of different size and materials on tennis rackets.
Physical properties of various brands of diesel fuel.
Air pressure and tire wear.
Comparison of locks - which is best?
Sole traction - which sole is best?
Fishing lines take the strength test.
Up to bat - wood or aluminum?
Do sausages vary in fat and water content?
A comparative study of various packing materials.
Air pressure and tire wear.
Antifungals: How well do they work on athlete's foot?
Are TV commercials louder than regular programming?
Can a roof overhang cut summer cooling costs?
Comparison of locks - which is best?
Contacts vs. mascara.
Do sausages vary in fat and water content?
Do swimming caps help you swim faster?
Effects of detergents on commonly used threads.
Effects of different sizes and materials on tennis rackets.
Endurance of roofing shingles and tiles.
Fishing lines take the strength test.
How different fabric-care treatments affect the flammability of cloth.
How fire affects roofing materials.
How heat affects recording tape.
How much does it really cost to run a refrigerator?
How much money can a pool cover save?
Is there sugar in toothpaste?

Liquid vs. bar soap.
Meat, fat and moisture content in hot dogs.
Sole traction - which sole is best?
Strength test for glues.
The effectiveness of different wood preservatives.
The feathers of archery.
The spoilage rate of different types of baby food.
Up to bat - wood or aluminum?
Water solubility of suntan lotions.
What are the differences between butter and margarine?
Which detergent removes grass stains best?
Which fabrics are most fire-resistant?
Which fire alarm is best for the home?
Which firewood gives the most heat per dollar?
Which hook and loop fastener works the best?
Which mouthwash kills the most bacteria?
Which nails have the best holding power.
Which paint protects wood the best?
Which solar panel is most efficient?
Which stain remover works best?
Which toothpaste is most abrasive?
Do oil additives reduce friction on engine parts?
Effects of outer coating on vitamin solubility.
Evaluation of protective shoulder pads.
How does eye makeup affect bacteria near the eye?
How effective are commercially-produced water filters?
Testing sunscreens' absorption of ultra-violet radiation.
The effect of different fin shapes on surfboard performance.
Which light bulb is most efficient?
Which motor oil is best?

Life Science project

How the amount of light affects the growth of marigolds
*Comparing the moisture content of five varieties of apples
Effects of the environment on popcorn (heat, cold, moisture, time, etc)
*A study of marine growth on various surfaces
How fast does a mealworm (or snail) travel?
The speed of snails on different surfaces
*Horsepower of snails
The effect of different metals on snails
Effects of household pesticides on earthworms
Do earthworms help plants to grow?
*Can insects pull more than their own body weight?
*Ant control - natural vs. chemical repellents
Do goldfish grow larger in a larger tank?
Fish feeding - the effects of light
*Can mice see colors?
*Can mice distinguish shapes (squares, circles, triangles - associate one with food)
*Hamster activity and the phases of the moon
*Can the color of unborn rabbits be predicted?
How many grams of food does a rabbit eat per day?

Chickens and colored corn - which will they eat?
*How does our vision affect our taste?
Light vs. vision - which color is best?
Night vision and the effects of colored objects
*The effect of color on depth perception
Does a blindfolded person walk in a circle?
The relationship between age and response time
*Can you recognize your own profile?
Left-hand, right-hand transference using a "mirror tracing"
Reading and remembering with different colored paper - which works best?
Flexibility: boys vs. girls
Do adults know U.S. geography? (or math skills, science concepts, etc)
How do people react when seeing a teenager shoplift?
*How teeth react to different liquids
*Do taste buds grow weaker as you get older?
*Effects of coffee on a person's steady hand
*Effects of caffeine on blood pressure
Smoking vs. lung capacity
Lung power of different age groups
Does temperature affect the growth of plants?
How do plants react to different kinds of music?
Do plants grow better with tap water or distilled water?
Do roots always grow down?
Can you give a plant too much fertilizer?
Testing different potting soils
Which mulch covering works best?
Which color liquid do hummingbirds prefer?
What is the best condition for the growth of mold?
Which bread mold most quickly?
In which soil do plants grow the best?
Growing potatoes at different locations.
Do different kinds of apples have different amounts of seeds?
Do large apples have more seeds than small ones?
How the amount of light affects the growth of marigolds.
How fast do kidney beans grow.
Do plants give off water?
Which materials dissolve in water?
Do coins corrode more in salt or fresh water?
The frequency and length of TV commercials during one-hour program.
Measuring rainfall with a rain gauge.
How a shadow changes throughout the day.
Depth of snow at ten different locations.
Which materials conduct electricity best?
Sounds from different rubberbands (or glasses of water).
String telephones- what materials work best in conducting sound.
Splat! A Study in droplet patterns.
How hot does it get inside a car with the windows rolled up?
Will an ice cube melt faster when crushed up?
Which toy car rolls the furthest?
How accurate is the temperature knob on my oven.
Which color of liquid absorbs the most heat?
Which color container absorbs the most heat?

Which color container cools off the quickest?
What food does a hamster prefer?
Can an earthworm detect light and darkness?
Chickens and colored corn-which will they eat?
Do goldfish grow larger in a larger tank?
What conditions do pill bugs prefer (light or dark, moist or dry)?

Engineering

*Do oil additives reduce friction on engine parts?
*A frictionless magnetic bearing
*How many rotor blades give maximum lift for a helicopter?
Paper airplane performance
*Robotics
*Using electromagnets to power a car
*Battle of the bridges
*Computer projects
*Testing a car headlight as a satellite dish antenna
*Storing the sun's energy
*Power from the rising air
*Power from the waves
*Testing different water turbine blades
Using electromagnets to power a car.
Different parachute designs and descent rates.
Battle of the bridges.
Paper airplane performance.
Can solar heat be used for a dog house?
Testing different water turbine blades.
Power from the waves.
Comparison of the hydrodynamics of keels.
Storing the sun's energy.
Testing a car headlight as a satellite dist antenna.
Best bridge structure for supporting weight.
Power from rising air.
How many rotor blades give maximum lift for a helicopter.
A frictionless magnetic bearing.
Robots.
Moving objects with air.
Automatic fish feeder.
A 3-D adaptor for photography.
Which windmill blade is most efficient for producing electricity?
Effect of lenses on a solar panel.
Do scales on the wings of aircraft increase lift?
Sail performance.
How increasing the number of batteries affects the speed of a motor.
What is the voltage range of the GE-14 bulb?
Analysis of rocket fins: stability and time of flight.
Flight of the boomerang.
Generation of electricity from wave energy.
Wind turbines and blade efficiency.
Aerobie or frisbee: which design flies the farthest and longest?
Strength of parabolas.
Which metals make the best batteries?

Wind effects between tall buildings.
Battle of the bridges.
Can onion skins be converted into useful paper?
Paper airplane performance.
Storing the sun's energy.
A better antenna.
A frictionless magnetic bearing.
A solar-powered system for building illumination.
An inexpensive computer-controlled robot.
Are ceramic fibers a better oven insulator?
Best bridge structure for supporting weight.
Building an inexpensive computer mouse.
Computer simulation of a single-plane pendulum.
Different parachute designs and descent rates.
Do canard fins reduce weather cocking in model rocket flights.
Do car headlights make good parabolic satellite receivers?
Extending laminar flow by use of a heated boundary layer.
Fiber optic audio communications system.
Generation of electricity from wave energy.
How effective is solar heating?
How many rotor blades give maximum lift for a helicopter?
How might a pier be built to better withstand stress?
How well will a suspension bridge resist a windstorm?
Improving solar windows with black-silver shadescreen.
Lift profile: Clean airfoil vs. twenty degree flap.
Measuring indices of refraction with a laser and an interferometer.
Noise attenuation devices and their effectiveness.
Power from rising air.
Power from the waves.
Reverse-wing gliders.
Robots.
Testing a car headlight as a satellite dish antenna.
Testing different water turbine blades.
The effect of home computers on radio and television reception.
Torque vs. air flow in helicopter flight stability.
Which commercial plane is most stable in turbulence?
Which electrolyte increases output voltage of a transformer the most?
Which windmill blade is most efficient for producing electricity?
Wind turbines and blade efficiency.
Mathematics
When it's raining, do you get more wet walking or running?
How accurately can we measure the height of a building with a quadrant?
How common is the perfect histogram?
Is there a sophomore jinx in baseball?
A statistical analysis of the length diversity of kidney beans.
Is high school harder? A comparative grade analysis.
Weather patterns: a study in probability.
World population statistics: what's ahead for the year 3000.
Popcorn: a graphical analysis of pops per second.
Estimating the volume of garbage generated in my town.
How tough is the teacher? A test score analysis.
Should you bet on the gray horse?

Medicine and Health

Do cigarette filters work?
How does exercise affect the blood sugars in a diabetic?
Effects of smoking on skin temperature.
Age and the ability to estimate distance.
Cornflakes or candy? Testing glycemic responses.
Effects of caffeine on blood pressure.
Which method of cooking is better for retaining vitamin C in foods?
Pupil size and reaction to light - age and sex differences.
Lights vs vision - which color is best?
Night vision and the effects of colored objects.
The effect of color on depth perception.
Smoking vs. lung capacity.
Resolving power of the eye.
Lung power of different age groups.
Does eating breakfast affect short-term memory?
Flexibility: male vs. females.
Effects of coffee on a person's steady hand.
Hot tubs and their effect on blood pressure.
Tar and nicotine in five brands of cigarettes.
Do taste buds grow weaker as you get older?
Effects of foul smell on blood pressure.
Effects of smoking on skin temperature.
Flexibility: Males vs. females.
Hot tubs and their effect on blood pressure.
How does exercise affect the blood sugars in a diabetic?
Light vs. vision-which color is the best?
Night vision and the effects of colored objects.
Smoking vs. lung capacity.
Tar and nicotine in five brands of cigarettes.
The effect of color on depth perception.
Will grip strength increase when exercising with low resistance?
A study of the effects of ultraviolet light on skin.
Altitude and its effect on dust mites.
Biostatistical approach to cancer survival.
Blood glucose level home monitors: A comparison of their accuracy.
Can humans accurately assess their sense of smell.
Cyclosporin A: How does it affect immune cells?
Dermal ridges and pattern types.
Determining the metabolic rate of warm and cold acclimated mice.
Does caffeine stimulate DNA repair and replication?
Does electrolyte drink increase cycling endurance?
Does salicylic acid cause hyperactivity and learning disability in mice?
Does structured breathing increase pain tolerance?
Does the body type of competitive swimmers affect stroke excellence?
Effect of diet on immune response of mice.
Effect of physical exertion on physical and mental response.
Effect of vitamins on the regenerative powers of planaria.
Effects of ethanol on cardiac development in the chicken embryo.
Effects of ethyl alcohol on jetlag.
Effects of optical exposure to low-intensity light.

Effects of the argon and krypton laser upon pigmented epidermis.
Evaluating chemical distracters in drug screening techniques.
Every breath counts: A study of temperature effects on CO₂ output.
Running injuries and shoe wear.
Stress: The key element in the development of diabetes.
Use of blood groups in solving cases of disputed paternity.
Which method of cooking is better for retaining vitamin C in foods?

Physics and Physical Science

- Which metals conduct heat best?
- *Measuring the calories in a peanut
 - Which material makes the best heat insulator?
- *The efficiency of airspace as an insulator
 - Which color of liquid absorbs the most heat?
 - Which color container absorbs the most heat?
 - Which color container cools off the quickest?
 - How temperature affects the height at which different balls bounce
- *How heat affects recording tape
 - Do black bottom pools keep the water warmer?
 - How constant is the temperature in my refrigerator?
 - How accurate is the temperature knob on my oven?
 - The effects of temperature on the strength of dry cells
 - The effect of light on dyed materials
- *Calculating liquid density using light refraction
 - Materials that absorb sound
 - String telephones: what materials work best in conducting sound?
 - Conductivity of various liquids
- *How temperature affects the amount of electricity given off by a solar cell
 - How increasing the number of batteries affects the speed of a motor
 - What is the voltage range of the GE-14 bulb?
- *The strength of a magnet vs. distance
- *Do magnetic fields affect the sound quality on a recording tape?
 - The effects of washing on dyed materials
- *Which fabrics are most fire-resistant?
- *Which toothpaste is most abrasive?
- *The amount of dissolved salt in drinking water
 - Can saltwater be desalted by freezing?
 - Popcorn: A graphical analysis of pops per second
- *Strength of different woods
 - Ink evaluation with paper chromatography
 - Splat - a study in droplet patterns
- *Chlorine levels in our drinking water
 - The effects of swimming pool water (chlorine) on hair
- *Testing sugar in soft drinks
- *Comparison of vitamin A content in frozen, canned, and fresh peas
- *Which food have starch (or sugar, fat, protein, etc)?
- *Testing various orange drinks for vitamin C
- *How fire affects roofing materials
 - How well do various fabrics absorb dye?
- *Who has the greater body density, boys or girls?
- *How strong is a spider web thread?
 - Think up your own special project idea

*How does the tail affect the flight of a kite?

*What shutter speed is needed to photograph a moving fan?

The velocity of water through different tubes (same size, different material)

The velocity of water through different tubes (same material, different sizes)

The velocity of different liquids through the same size tube

*Density of various liquids

How temperature affects electricity generated by a solar cell.

Which material makes the best heat insulator?

How propeller pitch affects the power of an outboard motor.

Materials that absorb sound.

How much energy is generated by humans at the health spa?

Calculating liquid density using light refraction.

How temperature affects the height at which different balls bounce.

How accurately can we measure the height of a building with a barometer?

What properties of a ball will cause it to roll more rapidly?

How does the tail affect the flight of a kite?

What shutter speed is needed to photograph a moving fan blade?

Who has greater body density, boys or girls?

Application of cinematography-measuring model rocket velocity.

Calculating liquid density using light reflection.

Conductivity of various liquids.

Effects of liquid's density on its droplet shape.

How temperature affects electricity generated by a solar cell.

How temperature affects the height at which different balls bounce.

Materials that absorb sound.

Popcorn: A graphical analysis of pops per second.

Strength of different woods.

Which material makes the best heat insulator?

Comparison of dielectric losses of various substances.

Correlation between light wavelength and fog.

Digital imitative synthesis and orchestral instruments-do they compare?

Effects of different shaped mouthpieces on the tone of a clarinet.

Electromagnetic measurements of surface tension.

Finger frictional thrust while swimming.

Friction of various liquids.

Holographic determination of thermal expansion.

How do car shapes affect drag force?

Inharmonicity in the overtone structures of harp tones.

Light transmittance of plastics in confined wavelengths.

Measuring the velocity of sound in various materials using ultrasonics.

Patterns of energy loss experienced by a bouncing ball.

Study of harmonics produced on different kinds of cello A-strings.

Testing the strength of spider web threads.

What effect does temperature have on metal during welding operations?

Working with holograms to improve the image.

Zoology

Can mice distinguish shapes (squares, circles, etc.)?

Can mice see colors?

Chickens and colored corn - which will they eat?

Do environmental differences affect color changes in Pacific tree frogs?

Do turtles lose or gain weight during hibernation?

Effect of metals on snails.

Effects of household pesticides on earthworms.
Effects of infrared filtered light on color changes in chameleons.
Fish feeding - the effects of light.
Hamster activity and the phases of the moon.
Shell selection by hermit crabs.
Ant control - natural vs. chemical repellents.
Arthropod behavior: Testing the territoriality of the Achela domesticus.
Can insects pull more than their own body weight?
Can the color of unborn rabbits be predicted?
Certain drugs and their effects on two species of snails.
Determination of adhesion strength in Collisella scraba, a limpet.
Determining the homing mechanism of Limax maximus, a slug.
Diurnal movement of periwinkles.
Do planaria regenerate more quickly in glucose, maltose, or sucrose?
Effect of cromolyn sodium on mouse heart rate.
Effects of x-ray radiation on spider mites.
Glucose-insulin release between diabetic and non-diabetic mice.
Horsepower of snails.
How do different planarian species react to various mitotic inhibitors?
Northern anchovies and their life-span in bait tank environments.
Sound-related behavior in damsel fish.
Synaptic response in the cockroach.
The effect of regeneration upon memory in planaria.

Earth/Space Science

*Charting the apparent motion of Polaris
Composition of Hawaiian sand
Water retention of different soils
Using a computer for mineral identification
How much dust falls on your lawn in a month?
How clean is our air?
How acid is our rain?
Speed of clouds using photography
The effect of wave action on different rocks (using a rubber tumbler)
Wave barriers
Using feathers to clean up oil spills
Terracing and how it affects erosion
*The effects of water on different types of wood
Mass loss in a rock tumbler.
How acid is our rain?
Impact craters: size and shape.
Using feathers to clean up oil spills.
The greenhouse effect.
How clean is our air?
How can mirrors increase a solar cell's voltage?
Wave barriers.
Speed of clouds using photography.
The effects of water on different types of wood.
Terracing and how it affects erosion.
Testing various materials for cleaning up oil spills.
Charting the apparent motion of Polaris.
The effect of wave action on different rocks (using a rock tumbler).

Composition of Hawaiian sand.
How much dust falls on your lawn in a month?
Water retention of different soils.
Crepe paper: it doubles as a relative humidity gauge.
Composition of Hawaiian sand.
How acid is our rain?
How can mirrors increase a solar cell's voltage?
How much dust falls on your lawn in a month?
Sped of clouds using photography.
Terracing and how it affects erosion.
Testing various materials for cleaning up oil spills.
The effect of wave action on different rocks (using a rock tumbler).
The effects of water on different types of wood.
Water retention of different soils.
Absorbing wave energy for shore protection.
Beach erosion in San Diego County.
Charting the apparent motion of Polaris.
Does the ionosphere affect satellite communications?
Effect of convection on room temperature.
Effect of depth on appearance of color in the ocean.
Effect of the sun on shortwave radio propagation.
Effects of roughness on fault lines at different pore pressures.
Effects of weather on dust accumulation.
Electrolytic production of hydrogen using photovoltaic solar energy.
Establishing the boundaries of the North American tektite strewnfield.
Frictional difference between fault type rocks.
Galactic infrared radiation intensity measurements.
Gully erosion - can we slow the process?
How clean is our air?
How to find the speed of light by using jovian satellites.
On which soil is it best to build?
Optical measurement of sedimentation rates.
San Diego Bay jetty vs. ocean waves and sand deposition.
Shape analysis of microfossils using laser shadow.
Tracking a communication satellite and determining its range using OSCAR.
Using a computer for mineral identification.
Variation of (Ca⁺⁺) in tap water.
Wave barriers.
Where in Julian is the highest concentration of magnetic minerals?

Various Projects

What type of line carries sound waves best?
Can the sun's energy be used to clean water?
Does a green plant add oxygen to its environment?
Which metal conducts heat best?
What percentage of corn seeds in a package will germinate?
Does an earthworm react to light and darkness?
Does the human tongue have definite areas for certain tastes?
Can same-type balloons withstand the same amount of pressure?
Does the viscosity of a liquid affect its boiling point?
Does surrounding color affect an insect's eating habits?
Do children's heart rates increase as they get older?

Can you use a strand of human hair to measure air moisture?
What materials provide the best insulation?
Is using two eyes to judge distance more accurate than using one eye?
Do different kinds of caterpillars eat different amounts of food?
What plant foods contain starch?
What keeps things colder-plastic wrap or aluminum foil?
Does heart rate increase with increasing sound volume?
Do boys or girls have a higher resting heart rate?
Do liquids cool as they evaporate?
Which way does the wind blow most frequently?
Does the size of a light bulb affect its energy use?
For how long a distance can speech be transmitted through a tube?
Which grows mold faster-moist bread or dry bread?
What type of soil filters water best?
Does the color of a material affect its absorption of heat?
Does sound travel best through solids, liquids, or gases?
Do sugar crystals grow faster in tap water or distilled water?
Can you see better if you limit the light that gets to your eye?
How much of an apple is water?
What common liquids are acid, base or neutral?
Do taller people run faster than shorter people?
Does the length of a vibrating object affect sound?
Does a plant need some darkness to grow?
Who can balance better on the balls on their feet- boys or girls?
Does exercise affect heart rate?
Which dish so makes the longest lasting suds?
What are the effects of chlorine on plant growth?
Do different types of soil hold different amounts of water?
Will adding bleach to the water of a plant reduce fungus growth?
Does water with salt boil faster than plain water?
How far can a person lean without falling?
Can you tell time without a watch or a clock?
How far can a water balloon be tossed to someone before it breaks?
What brand of raisin cereal has the most raisins?
How can you measure the strength of a magnet?
Do ants like cheese or sugar better?
Can the design of a paper airplane make it fly farther?
Do roots in plants grow downward?
Can you tell what something is just by touching it?
What kind of things do magnets attract?
What food do mealworms prefer?
How long will it take a drop of food dye to color grass of still water?
How much salt does it take to float an egg?
What kind of juice cleans pennies best?
Which dish soap makes the most bubbles?
Do watches keep time the same?
On which surface can a snail move faster- on dirt or cement?
Which type of oil has the greatest density?
How accurately do people judge temperatures?
Do all objects fall to the ground at the same speed?
Does anyone in my class have the same fingerprints?
Which travels faster-a snail or a worm?

Which paper towel is the strongest?
Can plants grow from leaves?
Which dissolves better in water-salt or baking soda?
Can things be identified by just their smell?
With which type of battery do toys run longest?
How far does a snail travel in one minute?

Ideas --Elementary School Projects

Experiments

Magnetic and nonmagnetic materials

Which magnet is strongest?

Which materials conduct electricity best?

Which materials conduct heat best?

Sounds from different rubber bands (or glasses of water)

Which toy car rolls furthest?

Which materials dissolve in water?

Which paper towel absorbs the most water?

Will an ice cube melt faster when crushed up?

Do coins corrode more in salt or fresh water?

How vinegar affects egg shells

How a shadow changes throughout the day

Measuring rainfall with a rain gauge

Depth of snow at ten different locations

Testing a sundial with a clock

Which brand of raisin bran has the most raisins?

What a plant needs to grow

Do plants prefer tap water or distilled water?

How temperature affects plant growth

Do plants give off water?

In which soil do plants grow best?

Growing potatoes at different locations

How fast do kidney beans grow?

Do large apples have more seeds than small ones?

Do different kinds of apples have different amounts of seeds?

What conditions do pill bugs prefer (light or dark, moist or dry)?

Can an earthworm detect light and darkness?

How far does a mealworm (or snail) travel in one minute?

What is the best condition for the growth of mold?

Which bread molds most quickly?

Which color liquid do hummingbirds prefer?

What food does a hamster prefer?

Can people identify flavors of Kool-Aid when blindfolded?

More Questions

Does the shape of a kite affect its flight?

Does an ice cube melt faster in air or water?

Does sugar prolong the life of cut flowers?

How much of an orange is water?

Which liquid has the highest viscosity?

Will more air inside a basketball make it bounce higher?

Does the color of light affect plant growth?

Does baking soda lower the temperature of water?

Which brand of popcorn pops the most kernels?
How much can a caterpillar eat in one day?
In my class, who has the biggest feet- boys or girls?
Do plants grow bigger in soil or water?
Does the color of water affect its evaporation?
Can you separate salt from water by freezing?
How does omitting an ingredient affect the taste of a cookie?
Do suction cups stick equally well to different surfaces?
Which student in the class has the greatest lung capacity?
How much weight can a growing plant lift?
Will water with salt evaporate faster than water without salt?
Does it matter in which direction seeds are planted?
Which cheese grows mold the fastest?
Do all colors fade at the same rate?
Which brand of diaper holds the most water?
In my class, who has the smallest hands-boys or girls?
Which kind of cleaner removes ink stains best?
Does a plant grow bigger if watered by milk or water?
Which brand of soap makes the most suds?
Does a baseball go farther when hit by a wood or metal bat?
Do living plants give off moisture?
Using a lever, can one student lift another student who is bigger?
What gets warmer- sand or dirt?
Which kind of glue holds two boards together better?
Does a bath take less water than a shower?
Can you tell where sound comes from when you are blind folded?
Can plants grow without soil?
Does warm water freeze faster than cool water?
Do bigger seeds produce bigger plants?
Which materials absorb the most water?
Do wheels reduce friction?
What materials dissolve in water?
What is the soil in my school yard made of?
Does holding a mirror in front of fish change what the fish does?
What color of birdseed do birds like best?
What holds two boards together better-nails or screws?
Will bananas brown faster on the counter or in the refrigerator?
Does temperature affect the growth of plants?
Do mint leaves repel ants?
Does a ball roll further on grass or dirt?

Book and Internet Resources

100 First Prize Make It Yourself Science Fair Projects
Sterling Publishing Company, New York, NY 10016
(800) 367-9692

Pick a proven science project from eight fields, including food science, chemistry, astronomy, and botany, and then follow the simple instructions for building your display.

1001 Ideas for Science Projects
Prentice Hall General Refer., New York, NY 10023
(800) 288-4745

Hundreds of stimulating, project ideas for students, from middle school to college, and their teachers. Informative and easy to follow.

Big Book of Science Activities: Fun and Easy Experiments for Kids
McGraw-Hill, New York, NY 10011
(800) 262-4729

Included in this fun-filled book is a collection of the best activities from the popular "Science for Kids" series; uses easy-to-find materials; offers step-by-step instructions and simple explanations that illustrate the science behind the projects and also includes a special section on science fair projects. Recommended for ages 8-12.

Bill Nye the Science Guy: Consider the Following, a Way Cool Set of Science Questions, Answers, & Ideas to Ponder
Disney Press, New York, NY 10011
(800) 759-0190

This entertaining nonfiction book poses more than 50 intriguing science-based questions and then takes readers through fun-filled experiments to find the answers and explanations.

The Complete Handbook of Science Fair Projects
John Wiley & Sons, New York, NY 10158
(800)225-5945

Useful information and hints on how to design, conduct, and present a science project. An excellent resource for students looking for ideas.

Janice Van Cleaves' A+ Projects in Biology, A+ Projects in Chemistry, and A+ Projects in Earth Science
John Wiley & Sons, New York, NY 10158
(800)225-5945

These step-by-step guides explore 30 different topics and offer dozens of winning experiments for science fairs. The book also includes charts, diagrams, and illustrations.

Science Experiments and Projects for Students
Kendall/Hunt Publishing Co, Dubuque, IA
(800) 228-0810

Expand your students' abilities to inquire and discover through this interactive book that requires students to take action-to do activities, collect data, and answer questions. Recommended for advanced middle school students or higher.

Science Experiments By the Hundreds
Kendall/Hunt Publishing Co., Dubuque, IA
(800) 228-0810

This book stresses that learning to experiment is an important part of knowing science as well as a useful strategy for solving everyday problems in a more systematic way. For beginning student researchers, parents, and teachers.

Learning and Assessing Science Process Skills
Kendall/Hunt Publishing Co, Dubuque, IA
(800) 228-0810 ISBN #0-8403-8403-0

Teach students how to improve their process and research skills through learning by doing. Highly recommended for middle and high school students.

Students and Research
Kendall/Hunt Publishing Co, Dubuque, IA
(800) 228-0810 ISBN #0-8403-7766-5

Help teach students how to improve their research skills through hands-on activities and detailed lessons. Highly recommended for middle and high school students.

Science Fair and Projects

National Science Teachers Association

Arlington, VA 22201 (703) 243-7100

Suggestions involving students in science projects and guiding parents in their child's investigations. For grades 7-12.

Internet Resources:

Science Fair Research Material at the UGA Library <http://www.libs.uga.edu/ref/scifair.html>

California Science & Engineering Fair <http://www.usc.edu/CSSF/Resources/>

The EDUZONE Science Links

NASA Life Sci.Support Contract project guide

Odyssey Magazine <http://www.odysseymagazine.com/>

The SciCentral News Alert <http://www.scicentral.com/>

The WWW Virtual Library: Science Fairs <http://physics1.usc.edu/~gould/ScienceFairs/>