

Life Science/plants

- What kind of soil is best for water retention?
- Will antacids help soil polluted by acid rain?
- Does human hair affect the growth of plants?
- How does a garden mist spray affect plant growth?
- How does the duration of insolation affect plant growth?
- What is the percentage of water in various fruits and vegetables?
- Which plants and vegetables make the best dye?
- Which type of wildflower grows best under artificial light?
- How does temperature affect the water uptake in celery plants?
- Does the type of water affect the growth of plants?
- Is soil necessary for plant growth? (hydroponics study)
- How does rotation affect plant growth?
- Does a plant grow best in sunlight or artificial light?
- Can plants deprived of sunlight recover?
- What is the relationship between root and stem growth?
- How does gibberellic acid affect plant growth? (growth hormones study)
- Which color of light causes green beans to grow best?
- Can potatoes be grown without soil?
- How do worms affect plant growth?
- What affect do Epsom salts have on plant growth?
- The effect of different light on plants (vary intensity, color)
- Hydroponic Plants
- Growing Plants with different soils / fertilizers
- Plant Growth and Artificial Lighting
- The effects of crowding in plant life
- Microscopic structure of plant cells

Life Science

- On which foods does fungus grow best?
- How does ethylene affect ripening fruit?
- How are teeth affected by fluorides and acids?
- Observing Microscopic Animals
- Effects of toxic chemicals on algae
- Pleasures of Pond Scum
- Plant diversity in a field
- Insect Internal Organs
- Getting Inside an Ant's Head
- How to Isolate Organic Molecules
- Heart Function/Electrocardiograms
- Isolating proteins from milk

Astronomy

- What evidence can we find about the rotation of the earth from star trails?
- What is the size of the earth? (Eratosthenes method)
- How does the color of a background affect its absorption of solar insolation?
- How does sunspot activity affect radio reception?

Physics

- Sunspots/Solar Observing
- Homemade Solar Observatory
- Detecting Nuclear Events
- Einstein's Theory of Relativity
- Magnetic Fields
- Magnetically Levitated Trains
- Aerodynamics
- Bathtub Aerodynamics
- Static vs. Kinetic Friction
- Electrochemical cells
- How to tell a positive battery pole
- How does a dry cell generate electricity
- Testing the strength of electromagnetic fields
- Can electricity be produced by friction
- What is a spark?
- Compare sliding and rolling motion
- How to make heat by friction
- What factors does the force of friction depend on
- Reducing friction
- Transmission, reflection, and adsorption of colors
- Light refraction
- Speed of sound
- Mechanical advantage

Engineering

- Test different metals (conductivity, tensile strength, heat dissipation)
- Analog computers
- Autonomous robots
- Electrostatic precipitation
- Electroplating
- Solar furnace
- Solid state lasers
- Conductivity of metals

Earth Science

- Does the amount of water affect the size of the wave?
- How does the volume of a stream affect its flow rate?
- Where is the current of a stream the fastest?
- Is there a relationship between phases of the moon and our weather?
- Fluctuations in the Earth's magnetic field

- See Taking the Earth's Magnetic Pulse
- Atmospheric haze
- Track Atmospheric Haze
- Effects of water impurities in plant growth
- Effects of magnetic fields on plant growth
- Organic Fertilizer vs. Chemical Fertilizers
- Erosion Control
- Biodegradability

Weather

- Does the topography of an area affect its local weather?
- How do changes in air pressure affect the weather?
- How are all weather factors related?

Environment

- What is in our drinking water?
- Are our local waters acidic?
- Do our soils show the effects of acid rain?
- What is the lime content of various samples of water?
- How polluted is our water? (trapping bacteria with a Millipore filter)
- Air purification methods
- Water purification methods (filtering/distillation)
- Analysis of lightning strikes
- Depletion of the ozone layer
- Global warming
- Local rainfall patterns
- Rock and mineral classification
- Physical properties of minerals
- Local weather computer model
- Recycling and landfill space

Other

- Which soap works better?
- Which gasoline provides better fuel economy?
- Detergent properties
- Washing in hard water/soft water
- Cell phone reception
- Calculation speed on computers
- Frozen foods and taste
- Radiation to preserve food
- What material is the best insulator?
- Do soap bubbles last longer on warm or cold days?
- Are hot air balloons different from blimps?
- What is the best method, other than heat, to melt ice?
- What effect does oil have on water plants?

Science Night Ideas from Mrs. Moran
2006-2007

- What would happen to the weather if the Earth was a cube
- Do goldfish chemicals they sell you really help the fish adapt to the new aquarium
- How can a tomato plant be grafted to a potato plant
- How is sound obtained from a compact disk
- How does a nuclear reactor work, how does it look
- How is 2-yr old talk different from ours
- How does burning gasoline make a car move
- How do we tell how far away a star is from Earth
- What soils are best to build a house on
- The effects of Coca-cola on teeth.
- Effect substances have on growing crystals.
- How does temp affect popcorn popping?
- Will heat will change the magnetic field patterns in a standard horse-shoe/bar magnet.
- Why Ravioli cooked in the microwave cools quicker than when it was cooked on the stove top.
- How much pressure can different kinds of wood can take?.
- What materials best insulate a room for sound?