**Project Idea Lab**

**Ideas at a glance**
Good science projects start with a question. What interests you? What have you always wanted to know? These are just ideas to help you get started.

[**Level 1**](https://www.agclassroom.org/teen/science/idealab.htm#level1) **---** [**Level 2**](https://www.agclassroom.org/teen/science/idealab.htm#level2) **---** [**Level 3**](https://www.agclassroom.org/teen/science/idealab.htm#level3)

**LEVEL ONE**

**Plants**

* In what type of soil do plants grow best?
* Do plants know which end is up?
* How much light do plants need?
* What color of light in the light spectrum causes green beans to grow the best?
* Does temperature affect the growth of plants?
* Can plants grow from the leaves?
* Do bigger seeds produce bigger plants?
* Does a plant grow bigger if watered with milk or water?

**Food**

* Compare the freezing time for ice cream using ice versus ice and salt.
* Will bananas brown faster on the counter or in the refrigerator?
* Which brand of popcorn pops the most kernels?
* Which brand of popcorn pops the fastest?
* Does sunlight affect the taste of milk?

**Animals**

* Do ants like cheese or sugar better?
* What foods do mealy worms prefer?
* What seeds do birds like best?
* Do mint leaves repel ants?
* What colors attract moths and other insects at night?

[Back to Top](https://www.agclassroom.org/teen/science/idealab.htm#top)

**LEVEL TWO**

**Plants**

* Do roots of a plant always grow downward?
* Compare different methods of cooking a potato and the sensory differences.
* Does adding salt to a plant's water affect its health? How much salt can a plant tolerate before it dies?
* Can plants grow without soil?
* What type of soil is in my school yard?
* How does the spray from mister bottle affect plant growth?
* Does music affect plant growth?
* Does a green plant add oxygen to its environment?
* Compare organic pesticides to commercial pesticides.
* What percentage of corn seeds in a package will germinate?
* Does a plant need some darkness to grow?
* What are the effects of chlorine on plant growth?
* Do weed killers affect house plants?
* How do the moon phases affect plant germination?
* How fast do roots grow?
* What is the effect of chlorinated water on plant growth?
* How does the number of seeds produced by different plants compare?
* Will frozen seeds sprout?
* Will plants grow better in soil or water?
* What can be done to increase the decomposing rate of plants?
* Do plants grow bigger in soil or water?
* How much weight can a growing plant lift?
* Does it matter in which direction seeds are planted?
* Do living plants give off moisture?
* Can mushrooms be grown hydroponically?
* Which plants and vegetables make the best dye?
* Does the type of water affect the growth of plants?
* Do living plants give off moisture?
* Do living plants give off oxygen?
* Does the amount of light affect the growth of plants?
* Does sugar prolong the life of cut flowers?

**Food**

* Do microwaved foods cool faster than baked or stovetop foods?
* Which wrapping would keep sliced apples the longest in a refrigerator - foil, wax paper, plastic wrap or baggies?
* What plant foods contain starch?
* How much of an orange is water?
* How much of an apple is water?
* How does temperature affect the water uptake in celery plants?

**Animals**

* Do different species of birds prefer different types of seeds?
* Can earthworms be used to turn kitchen waste into compost?
* What products do beef cattle provide? Which body parts are not used?
* How do day-old domestic chicks behave?
* At what rate do pets drink water?
* Do mint plants repel insects?

[Back to Top](https://www.agclassroom.org/teen/science/idealab.htm#top)

**LEVEL THREE**

**Plants**

* What factors affect the rate of fruit ripening?
* Will antacids help soil polluted by acid rain?
* What is the percentage of water in various fruits and vegetables?
* How can agricultural pests be controlled without the use of insecticides?
* Does temperature affect how well an insecticide will work?
* How does centrifugal force affect the germination of corn seeds?
* How does light direction affect plant growth?
* Will vitamins affect the growth of a plant?
* What is the effect of detergent on bean seeds?
* Under what color light do plants grow best?
* In what kind of material (sand, clay, etc.) do seeds grow best?
* What is the effect of fats and cholesterol on plants?
* Can a mushroom block continue to produce new flushes of mushrooms over a longer total life span if the block is lightly fertilized? Does an organic fertilizer (e.g. something like milk, gelatin, etc.) work better, or an inorganic one (something like Miracle Grow™)?
* Do different types of soil hold different amounts of water?
* Will adding bleach to the water of a plant reduce fungus growth?
* Does the color of light spectrum affect plant growth?
* What conservation practice works best to control erosion?

**Food**

* Observe the influence of different cooking methods and different pHs on the appearance, flavor and texture of vegetables.
* Does sunlight affect the amount of vitamin C in orange juice?
* What effect does cooking have on a food's nutritional value?
* How do microwaves work to cook food?

**Animals**

* Does playing music increase egg-laying in chickens? Ducks?
* What effect does increased soil acidity have on earthworms?
* How important are earthworms to soil formation and plant growth?
* What kind of life can be found in one square meter of backyard soil?
* How does a bird embryo grow in an egg?
* Can mice distinguish color?
* How do mealyworms respond to light?
* How does an earthworm react to light and darkness?
* Do different kinds of caterpillars eat different amounts of food?
* Does temperature affect the flash rate of fireflies?
* What is the effect of temperature on the activity of (mealyworms, crickets, etc.)?
* Does a student's grade level affect his/her knowledge of endangered species?
* How does earthworm population relate to soil type?

Rittimann’s Ideas

Does temperature affect the rate of germination?

Does the depth a seed is planted affect it’s germination rate?

Does the color of a barrel affect how a barrel horse runs runs?

Will a dog given free choice of food eat less in a week over daily feeding according to the rate prescribed on the bag.?

Will different color light attract different amount of insects?

Given a choice will deer prefer corn, soybeans or pinto beans?

Does a change in bit change how a horse performs?

Does rotating a plant daily affect it’s growth?

How does placement of water affect root growth.

Does the angle of the slope affect plant growth?

Do dogs prefer moist or dry foods?

Is training a pet with treats more effective than training with a toy to play with?