

**From:** Science Buddies <scibuddy@sciencebuddies.org>

**Subject:** Check Out the Latest Project Ideas from Science Buddies!

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## Science Buddies Member Newsletter

Issue 1 - May 2009

### In This Issue

- Robot Gardener
- Greasy Potato Chips
- Make a Video Game
- Building Banjos
- Crime Scene Chemistry

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*Dear Science Buddies Member,*

*Welcome to the first issue! Below, you'll find a cool science news article, as well as several of our latest Project Ideas. Read on to find out about robot gardening, how to create your own video game or build your own banjo, and more! You can find complete details for the Project Ideas below, and hundreds more, on our website at [www.sciencebuddies.org](http://www.sciencebuddies.org).*

*Sincerely,*  
*Kenneth Hess*  
*Science Buddies Founder and President*  
[www.sciencebuddies.org](http://www.sciencebuddies.org)

## Science in the News

### How will *your* garden grow?

Imagine it's a warm summer day and you'd like a nice refreshing snack. So you walk over to your garden and there are all your fresh vegetables, perfectly ripe, picked, sorted, and ready to eat! Sound like something out of a science-fiction movie? Well, it could be a reality in the next several years. Students at the Massachusetts Institute of Technology (MIT) are currently developing a robot gardener. The current robot waters and picks cherry tomatoes, and they are already thinking ahead to more-advanced robots that would make agriculture faster and more efficient. Check out the article at the [Discovery News](#) website.

## Project Ideas

## [How Greasy Are Your Potato Chips?](#)

Difficulty: 3 (Grades 3-5)

Project Summary:

One of America's favorite snacks is potato chips. Although potato chips are very tasty, some varieties are not very healthy for you. How greasy are your favorite potato chips? In this cooking and food science fair project, you will investigate how much fat is in some typical potato chips and potato crisps products. Make your own chips, and you'll get a visual understanding about how much oil a potato chip can hold.

Key materials you'll need:

- Graph paper
- Varieties of potato chips and crisps (4)
- Digital kitchen scale
- Wax paper
- Rolling pin

Visit [How Greasy Are Your Potato Chips?](#) for the full project. See similar projects on our [Cooking & Food Science](#) page.

## [Want to Make a Video Game? Here's How!](#)

Difficulty: 5-7 (Grades 6-8)

Project Summary:

Do you love playing video and computer games? Do you dream of someday creating your own? In this science fair project, you'll create a video game with an easy-to-use programming language called Scratch. Scratch was created by researchers at the Massachusetts Institute of Technology (MIT), and is specifically made for beginning programmers, so even if you've never programmed anything before, you'll be able to use Scratch!

Materials:

- Personal computer with Internet access
- Scratch program for your computer; see the actual project to learn how to install Scratch for free
- Lab notebook
- Graph paper

Read the full project at [Want To Make a Video Game? Here's How!](#) Or check out our [Video & Computer Games](#) page for similar science fair project ideas.

## [Building Banjos](#)

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Difficulty: 8 (Grades 10-11)

Project Summary:

A banjo is a stringed instrument that is used in many different types of music, from bluegrass and jazz to American old-time. The unique sound that this banjo makes depends, in part, on the resonator. The purpose of the resonator is to amplify and project the sound that is made by strumming and plucking the strings. In this music science fair project, you will experiment with this historic instrument by building and testing your own banjo. You will try adding a resonator to the stringed neck to see if the sound changes.

Key materials you'll need:

- Wood
- Metal
- Tools
- Fishing line
- 
- Plastic container without a lid
- 
- Computer with microphone, spreadsheet program, and an Internet connection

See the [Building Banjos Project Idea](#) page for the complete project. See similar Project Ideas on our [Music](#) page.

## [Crime Scene Chemistry-The Cool Blue Light of Luminol](#)

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Difficulty: 8-9 (Grades 10-12)

Project Summary:

Have you seen any crime shows or movies lately? You might have seen police investigators spraying a crime scene with a liquid that glows blue if there is any blood present. The chemical that glows in the liquid is called *luminol*. Luminol is a chemical that has the special property of emitting light when it reacts with certain other chemicals. It is used by crime scene investigators to discover spots of blood, even spots that may have been washed. In this chemistry science fair project, you will investigate how temperature affects the amount of light produced by the luminol reaction.

Key materials you'll need:

- "Cool Blue Light Experiment Kit"; details about where to order this are within the full project
- Digital camera
- Tripod
- Ice
- Kitchen thermometer

Visit [Crime Scene Chemistry-The Cool Blue Light of Luminol](#) for the full project. You can also visit our [Chemistry](#) page for similar Project Ideas.

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