



# ELECTRICITY



UNIVERSITY OF GEORGIA  
**EXTENSION**  
Athens-Clarke County



# WHAT IS ELECTRICITY?

**The flow of electrical power or charge.**

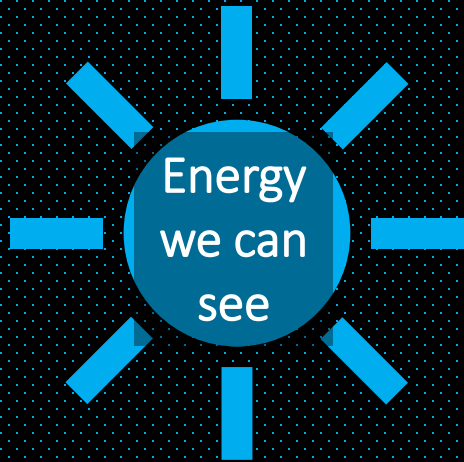
**Electricity is also referred to as an energy carrier.**

**We can collect electricity from  
the conversion of various forms of energy**



# FORMS OF ENERGY

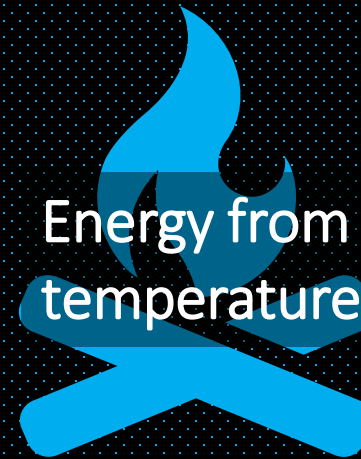
## Light



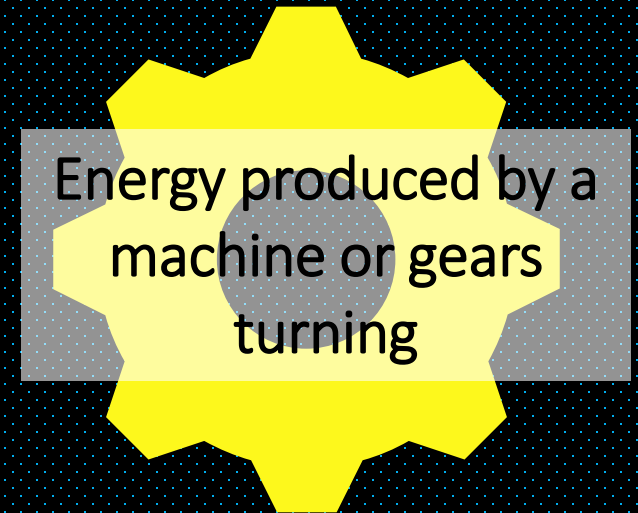
## Sound



## Thermal



## Mechanical



## Electrical

Chemical energy from a battery (energy from the flow of electrons)

## HOW DO WE USE ELECTRIC CHARGE?

Electric charge maybe transferred either by direct contact or by passing through a conducting material



# CONDUCTORS AND INSULATORS FOR ELECTRICAL ENERGY

## CONDUCTORS

A material or device that transmits electricity

What are some examples of Conductors?



## INSULATORS

A material or device which does not readily transmit electricity

What are some examples of Insulators?



# CONDUCTORS AND INSULATORS FOR ELECTRICAL ENERGY

## CONDUCTORS

A material or device that transmits electricity

- **ALUMINUM**
- **COPPER**
- **IRON**
- **STEEL**
- **WATER**



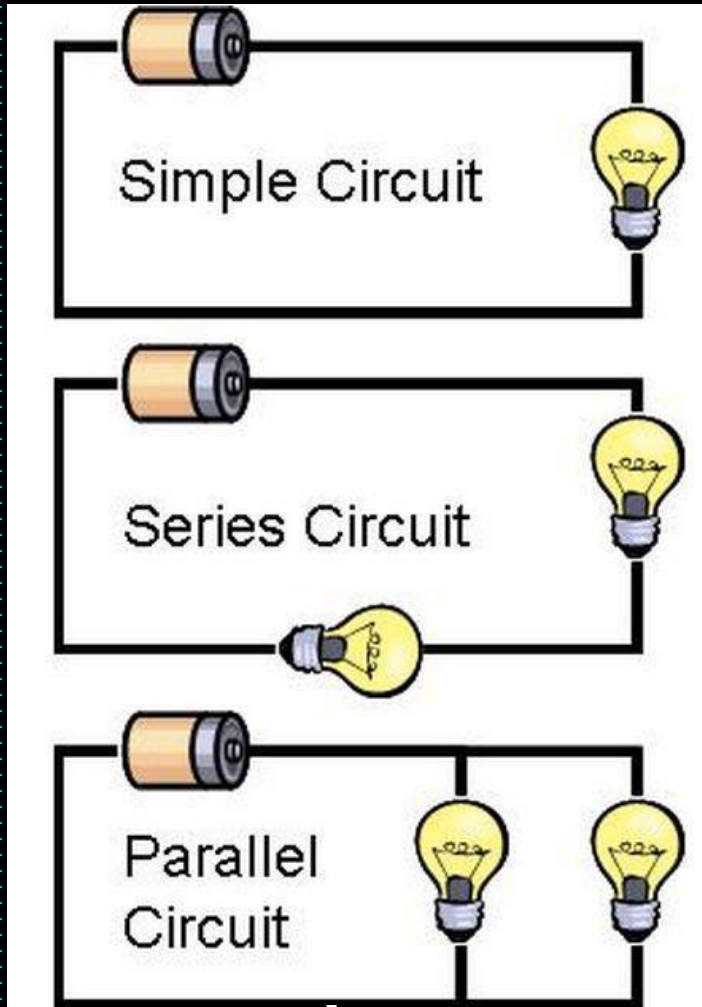
## INSULATORS

A material or device which does not readily transmit electricity

- **GLASS**
- **RUBBER**
- **PLASTIC**
- **WOOD**
- **PAPER**
- **COTTON**



# CIRCUITS



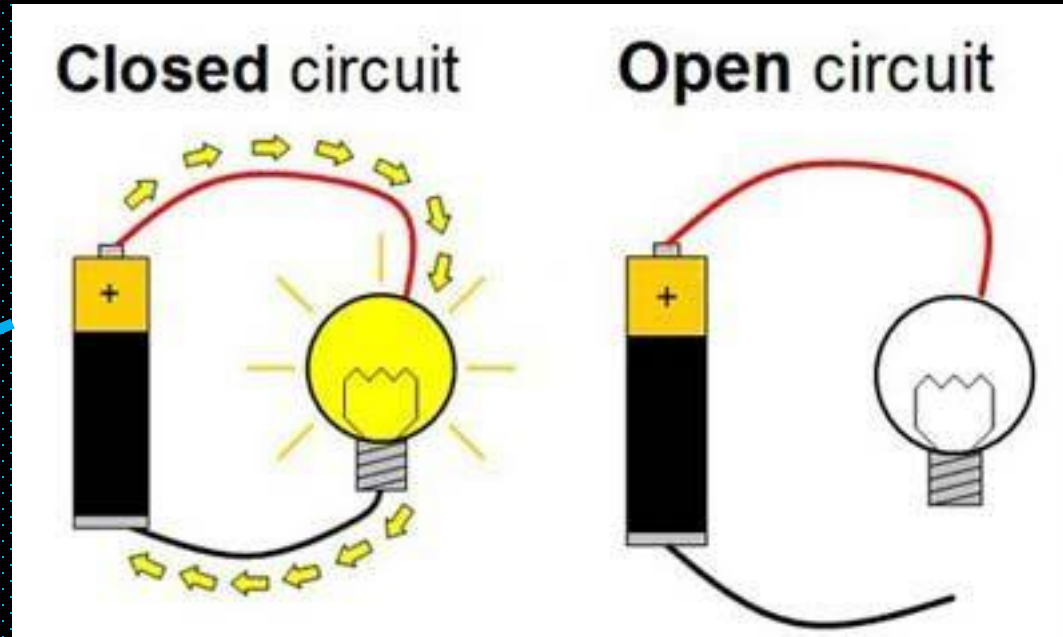
Current runs through one line and flows through one component

Current runs through one line and flows through multiple components

Current runs through lines that are arranged parallel to one another and flows through multiple components



# CIRCUITS



Makes a complete path for the flow of energy to pass through

Makes in incomplete path for the flow of energy



# ALTERNATIVE SOURCES OF ENERGY

Solar



Wind



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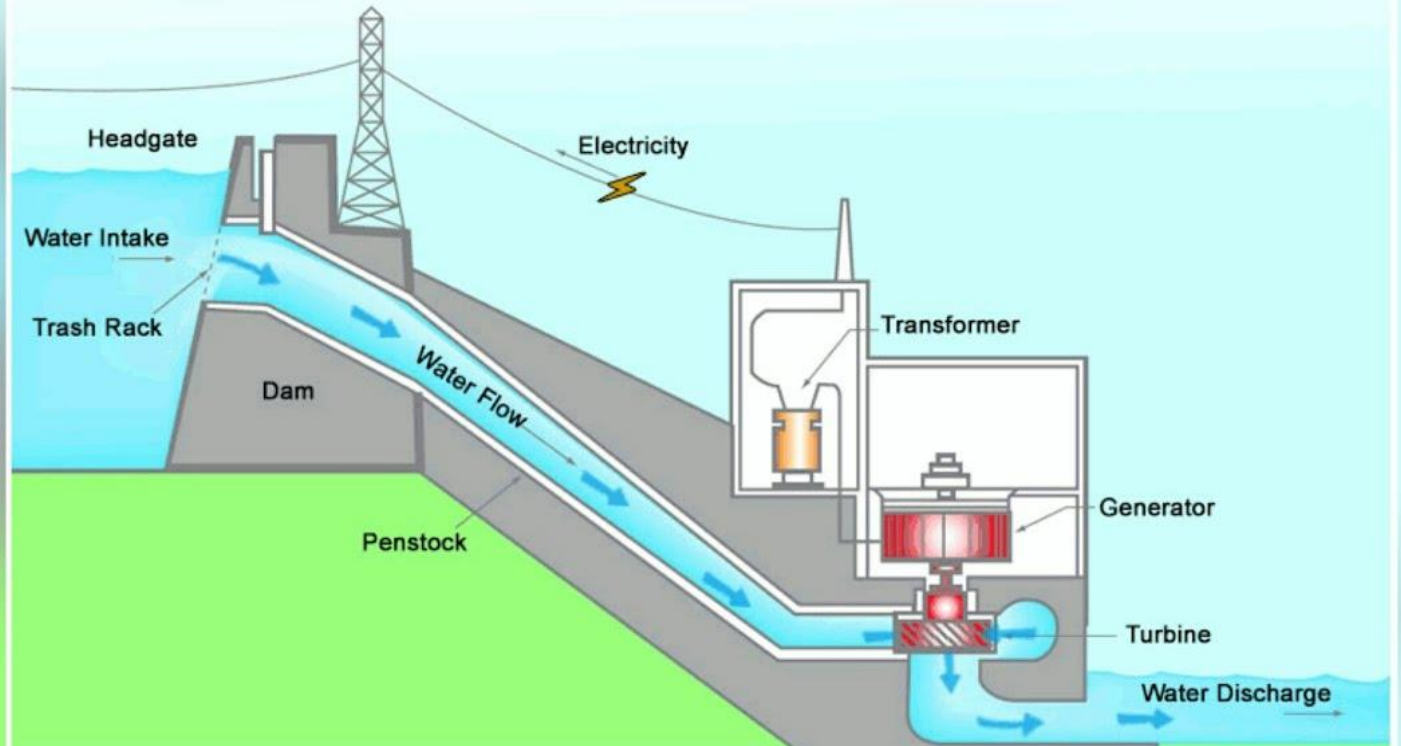




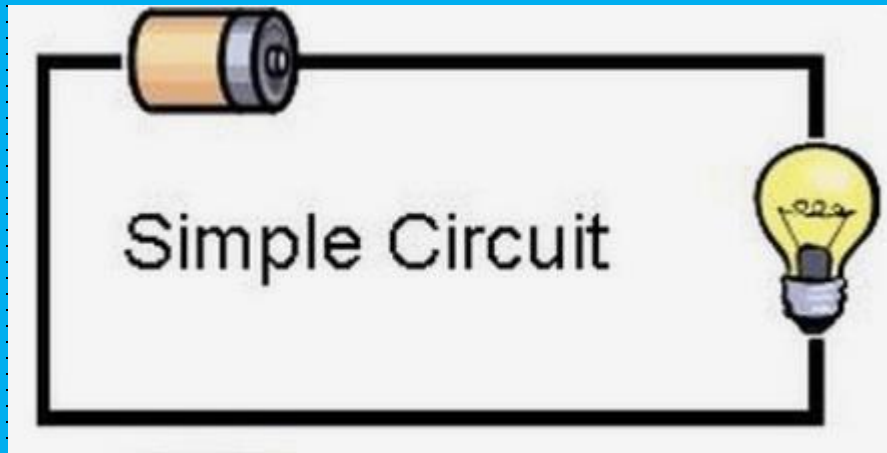
# Hydroelectric



## Hydroelectric Power System



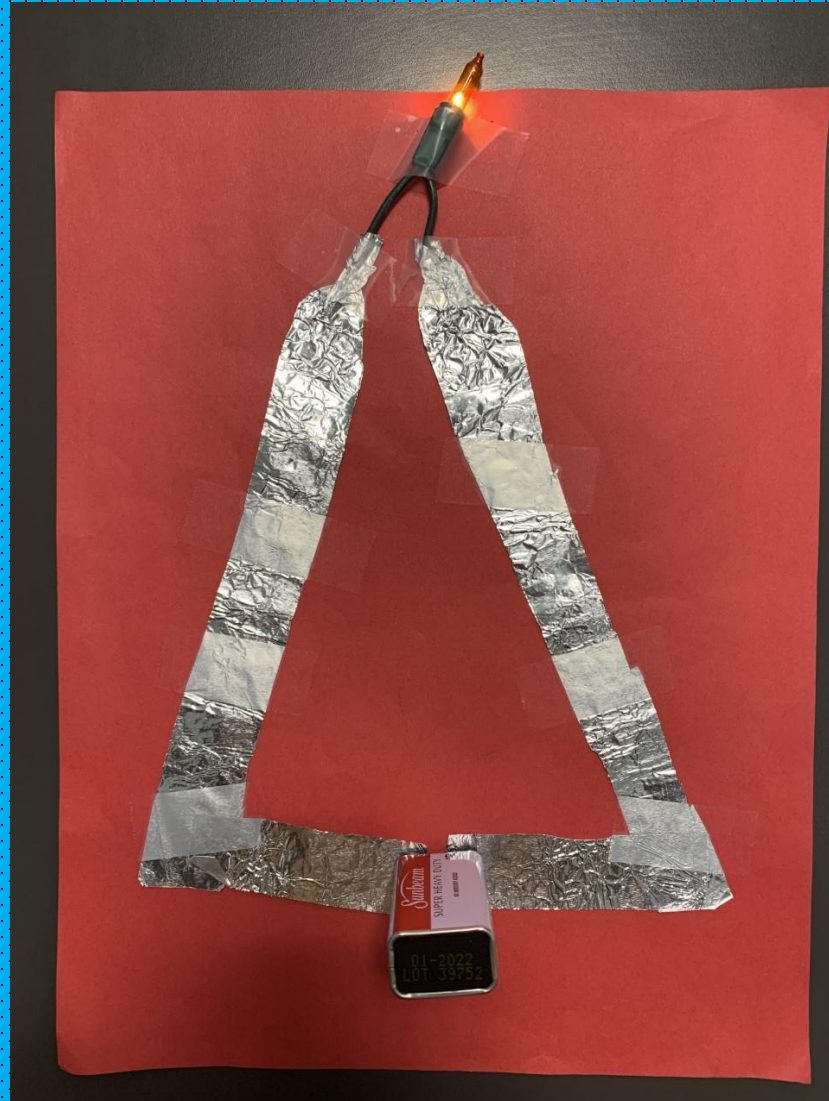
# LET'S MAKE A SIMPLE CIRCUIT !!



## Materials

- 1 String Light
- Aluminum Foil
  - Tape
  - Paper
- Battery

# SIMPLE CIRCUIT



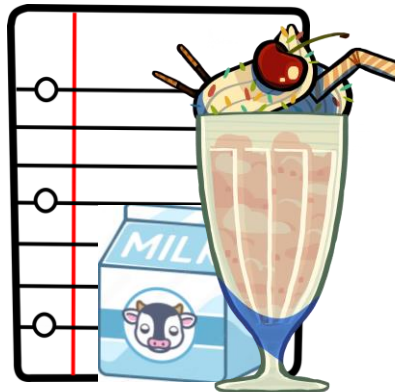
# MilkMake Recipe Contest

The dairy industry is an important part of Georgia agriculture. There are currently 200 dairy farms in Georgia that produced over 206 million gallons of milk last year. Milk and milk products are an important source of calcium in our diets. Let's get creative and see if you can create a recipe for a milk shake or smoothie.



## Here are a few simple rules:

1. Find or make up a recipe for a milk drink. It must have milk as one of the ingredients.
2. Write out the complete recipe. Make sure it has a title, list of ingredients, and a description of how to make your drink. Be sure to put your name on your recipe.
3. Make the drink following your directions.
4. Have someone taste it and write their comments.
5. Turn in your recipe and your taster's comments at your February 4-H meeting.



# Peanut Butter Sandwich Recipe Contest Winners



Best Overall: Alan Bahena, Ms. Walkers class; JJ Harris

Most Unusual: Lesli Tabouda, Ms. Kennerly's class; JJ Harris

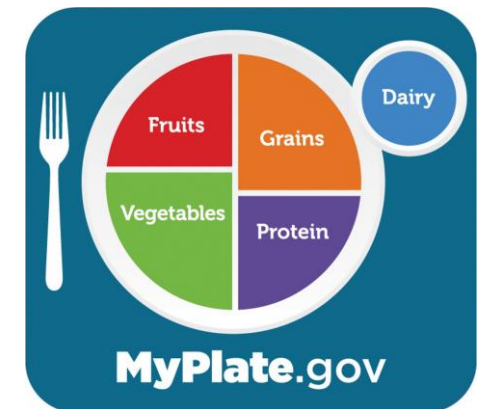
Most Creative: Liliana Broyles, Ms. McWhorter's class; Barnett Shoals

Most Nutritious: Kistina Agyei-Owusu, Ms. Morgan's; St. Josephs



# Nutrition Poster Contest Winner

Natalie Silva from JJ Harris





# Project Fun Day! (CPA)

Saturday, February 10, 2024

ACC 4-H Cooperative Extension Facility

9:30am until Noon

Online Parent Permission Required to Attend!



- To compete in this activity, students can sign up in their classroom or have Parent contact Ms. Conway at [ebarber@uga.edu](mailto:ebarber@uga.edu)
- Students will choose a topic from the Project List, prepare an informative presentation with visuals and then present speech at ACC Extension Facility on February 10
- Winners from the CPA competition in February may compete at District Project Achievement (DPA) in Jackson County on March 23
- Only students who participate at the district competition (DPA) in March may apply for the need based scholarships to reduce the cost of 4-H Summer Camp held at Rock Eagle in June.



# Upcoming 4-H Activities



- MilkMake Recipe Contest: Recipe with Taster's Comments Due at 4-H School Program



- County Project Achievement (CPA): Sign up with Teacher or have Parent e-mail Ms. Conway; Saturday, February 10 at 9:30am-12pm at ACC 4-H Cooperative Extension Facility ; First step in Summer Camp scholarship process





# 4-H Pledge

I pledge:

my HEAD to clearer thinking

my HEART to greater loyalty

my HANDS to larger service and

my HEALTH to better living

for my club, my community, my country and  
my world

