

UNIT 4: CIRCUITS



LESSON 1:

ACTIVITY 1: Match the words to the picture.

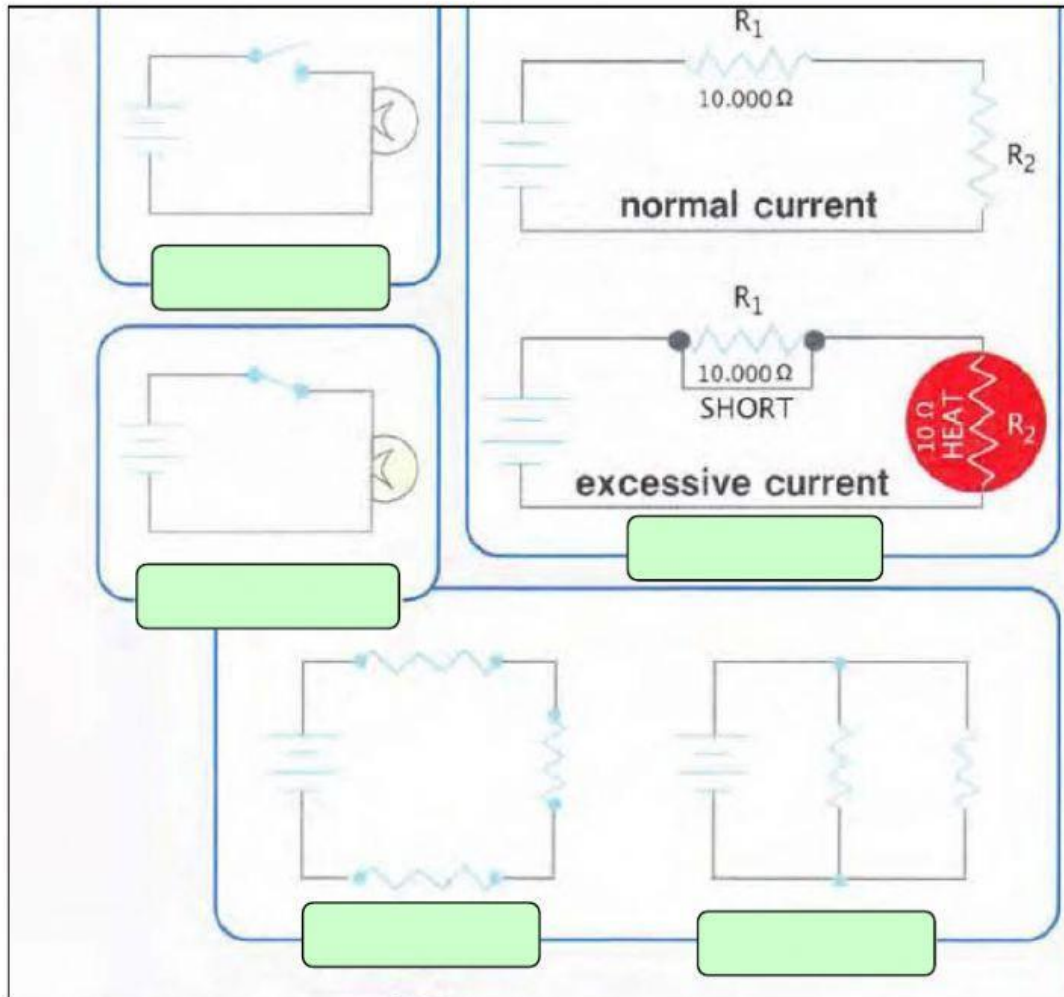
CLOSED CIRCUIT

OPEN CIRCUIT

IN PARALLEL

SHORT CIRCUIT

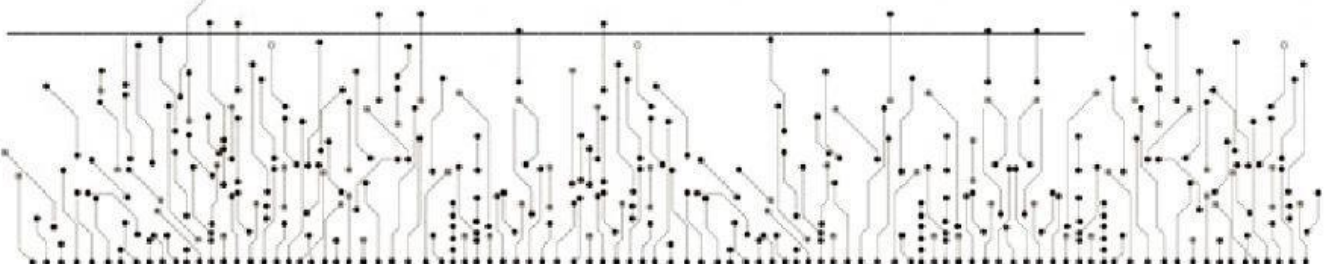
IN SERIES



ACTIVITY 2: Before you read, answer these questions.

1. What is the opposite of a closed circuit?

2. What is one problem that can affect circuits?



ACTIVITY 3: Read and choose the correct answers.

Class EE151

Electronic Circuits

Lecturer:	Professor Andrew Moore
Lectures:	Monday-Wednesday-Friday, 10am-10:50am
Prerequisites:	This is a level 1 course. No prior background knowledge is needed.
Credits:	3 units, letter grade only

Course Description

This course offers an introduction to electronics, focusing on circuit operations

- Learn about current **origin** and circuit **component** functions
- Learn about **closed** and **open** circuit loops and the different **legs** of a circuit.
- Discover how circuits work **in parallel** and **in series**.
- Understand how electrical voltage is **rectified** for home use. Learn about the role of **reservoirs**.
- Explore the causes of **short circuits** and how to deal with **shorted** equipment.
- Gain hands-on experience. Learn how to **wire** a circuit and do basic repairs.
- Take apart electronics equipment. Examine **active elements** and analyze **stages**.

Grading

Homework = **15%**. Penalties apply to students who turn in homework late.
Midterm exam and weekly quizzes = **30%**
Final exam = **55%**

- 1 What is the purpose of the passage?
A to outline the course content
B to announce an exam
C to describe course levels
D to introduce a professor
- 2 What will students NOT learn in this class?
A the reasons that short circuits happen
B the importance of reservoirs
C the correct way to wire a circuit
D the circuit operations in a home
- 3 What kinds of hands-on experience do students receive?
A opening and closing circuit loops
B creating a series of parallel circuits
C labeling electronics' active elements
D making repairs to damaged circuits

ACTIVITY 4: Match the words (1-8) with the definitions (A-H).

- | | |
|---------------|---|
| 1 closed | A a section of an electrical circuit. |
| 2 in parallel | B stopping current from traveling from one end of the power source to the other. |
| 3 in series | C to connect long, thin metal threads inside a piece of electrical equipment. |
| 4 leg | D when several components are connected across the power source's two terminals. |
| 5 open | E the place where current comes from. |
| 6 origin | F causing current to skip over part of a circuit and flow to the other end of the power source. |
| 7 shorted | G allowing current to travel from one end of the power source to the other. |
| 8 wire | H when current has to pass through one circuit component before it can pass through any others. |