

Main Ideas, Key Points, Questions:

After watching the video segment, write down key points, main ideas, and big questions.

Objective(s):

- *Compare and contrast parallel circuits with series circuits, in terms of current and voltage across each resistor.*
- *Understand how current and voltage change as the orientation of the resistors in a complex circuit changes.*

Notes:

During the video segment, use words, phrases, or drawings to take notes.

Summary:

After watching the video segment, write at least three sentences explaining what you learned. You may ask yourself: "If I was going to explain this to someone else, what would I say?"

Answer the following.

1. How does a parallel circuit compare to a series in circuit in terms of the paths through which the current can flow in the circuit?

2. What is the same in each branch of a parallel circuit?

3. How do you find the total current flowing through the circuit from the current in each branch?

4. If a branch of a parallel circuit has more resistance than the other branches, how does the amount of current flowing through that branch compare to the other branches?

5. How do the brightnesses of identical light bulbs that are wired in parallel compare to one another? How would they change if more bulbs are added to the circuit?

6. Write the equation for finding the equivalent resistance of multiple resistors in parallel:

Name:

Date:

7. How does the total resistance in a parallel circuit compare to the values of the individual resistors?

8. Why are houses wired in parallel instead of in series?

9. When circuits have some components that are wired in series, and some that are wired in parallel, they are called _____ circuits.

10. What is the same in each resistor that are wired in series to one another?

11. What is the same in each branch that are wired parallel to one another?
