

Title: Role Playing a Process

<p>Goals: (1) demonstrate understanding of a process (2) check on student understanding of a process (3) have students work in teams</p> <p>Description: Students play the role(s) of some moving aspect of a process. Different parts of the classroom can be key stations/stops to represent parts of a process.</p> <p>Example: “Simple DC Circuits” After discussing simple circuits in lecture, completing conceptual questions about current, resistance, and voltage, and working with simple circuits in lab, it was time for students to demonstrate these concepts. 10-12 students were given the role of charge carriers in a simple circuit, and different parts of the classroom were designated “battery” and “resistor” with given voltage and resistance values, respectively. Pennies were used to represent voltage: charge carriers were instructed to pick up an appropriate number of pennies (1 penny = 1 volt) and deposit an appropriate amount at the resistor. The rest of the class were observers, checking and helping at the battery for penny-pickup, checking that the correct number of pennies were deposited at the resistor, and that charge</p>	<p>carriers were moving at an even pace and evenly distributed; adjustments were made by observers to improve the overall model of the circuit. Follow-up activities expanded to a series resistor circuit, and a parallel-resistor circuit. Students gained a better understanding of how current actually moves in a circuit, and the role-play was useful in a future problem-solving class, where students were able to use their experiences in the role play to inform how current and voltage are determined for resistor circuits.</p> <p>Total time: 100 minutes for introduction of activity, role descriptions, discussions of circuits and correcting misconceptions about circuits, and follow-up with series and parallel circuits role-playing and discussions.</p> <p>Participant Level: GR, WC Prep Time: S Class Time: M, L When: A</p> <p>Submitted by: Prof. Kris Lui Montgomery College</p>
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Code Legend:

Participant Level: **WC** (Whole Class); **GR** (Groups); **P** (Pairs); **I** (Individual Students)
Prep / Class / Results Analysis Time: **S** (Short); **M** (Medium); **L** (Long)
When to Use During Semester: **B** (Beginning); **M** (Middle); **E** (End); **A** (Any time)