UNIT: CIRCUITRY GAME

ACT-Based English: Editing Circuitry Instructions

### Here are ACT-aligned English activities for the Build Your Own Circuitry Game that help students develop real-world skills in editing technical writing, improving sentence clarity, and revising instructions for accuracy and logical flow in circuit design tasks.

### Objective:

### Students refine unclear or incorrect game assembly instructions.

MATERIALS NEEDED:

* Sample game assembly instructions
* Editing checklist
* Worksheet

Students Directions:

**Goals:**  
You will improve the clarity, accuracy, and logical flow of game assembly instructions by editing and rewriting technical steps. This task strengthens your ACT English skills and prepares you to communicate effectively in STEM careers.

**Step 1: Review the Original Instructions**

* Carefully read the sample assembly instructions provided.
* Highlight any steps that are **unclear, vague, grammatically incorrect, or out of sequence.**
* Use the **editing checklist** to guide your review. Look for:
  + Ambiguous terms (e.g., “thingy,” “stuff”)
  + Missing transition words or logical order
  + Run-on sentences or fragments
  + Unclear references (e.g., “connect it” without saying what "it" is)

**Step 2: Revise for Clarity and Precision**

* Rewrite each unclear instruction to make it:
  + **Specific**: Say exactly what part or wire to use.
  + **Concise**: Remove unnecessary words or filler phrases.
  + **Logically ordered**: Make sure steps follow a clear, cause-and-effect sequence.
* Use technical vocabulary correctly (e.g., “terminal,” “power source,” “resistor,” “complete circuit”).

Example:  
❌ *“Put the thing together and then see if it works.”*  
✅ *“Connect the red wire to the positive terminal of the battery holder, then test the circuit using the switch.”*

**Step 3: Justify Your Edits**

* For each change, **briefly explain why** your revision improves the original:
  + Did it make the step easier to understand?
  + Did you correct a grammatical error?
  + Did your change improve technical accuracy?

Write your justifications in the worksheet provided or in the margin of the printed instructions.

**Step 4: Share and Discuss**

* Pair up with a classmate to:
  + Compare your edits
  + Give and receive feedback on clarity and word choice
* As a class, discuss:
  + **Why precision is critical** in technical writing
  + How poor instructions can lead to errors or failed circuits
  + How these writing skills connect to ACT-style questions and real-world communication in STEM

## ACT-Style Question:

## Which revision best improves the clarity of this instruction?

## "Connect wire to power before adding other parts."

## "Ensure power is connected before assembling the remaining components."

## "Hook up the circuit, then do the rest of the work."

## "Attach things in order for better function."

## **⚡ Why These Activities and Questions Matter**

By engaging in English-based activities connected to the Build Your Own Circuitry Game, students:

✅ Practice revising technical writing for clarity, conciseness, and grammatical accuracy.  
✅ Strengthen their ability to edit instructions, descriptions, and troubleshooting steps in circuit design.  
✅ Develop communication skills essential for explaining complex ideas with logical flow and precision.

These skills mirror the ACT English requirements—helping students become confident, effective communicators, prepared for college-level writing and STEM-related documentation.