

LIVEWORKSHEET – Basic Electronics Vocabulary & Reading

Name: _____.

A. Match the words with the correct meaning (Arrastrar y soltar)

- | | |
|-------------------------------------|--|
| 1. Circuit → | To test a circuit virtually. |
| 2. Power → | The space where you build the circuit. |
| 3. LED → | The signal that leaves a system. |
| 4. Switch → | The signal that enters a system. |
| 5. Input → | Logic values in digital systems. |
| 6. Output → | Energy supplied to a system. |
| 7. AND Gate → | Closed = current flows; Open = no flow. |
| 8. OR Gate → | A small light-emitting diode. |
| 9. Wire → | A section where components are selected. |
| 10. Simulate → | A logic gate that needs two TRUE inputs. |
| 11. NOR → | A logic gate that needs one TRUE input. |
| 12. NAND → | A gate that outputs TRUE only when all inputs are FALSE. |
| 13. Closed circuit / Open circuit → | A gate that outputs FALSE only when all inputs are TRUE. |
| 14. TRUE / FALSE → | A device used to open or close a circuit. |
| 15. Components Panel → | A conductor used to connect components. |
| 16. Work Area → | A circuit is a path for electric current. |

B. Reading: "Building a Simple Circuit in the Future"

Read the text and answer the questions.

Next week, my class **is going to build** a simple digital circuit in the simulator, **and** we **are going to use** the Components Panel to choose all the parts. We will need a **wire**, an **LED**, a **switch**, **but** we also want to test logic gates, **so** we **will** add an **AND gate** and an **OR gate**.

The instructor **will check** if the circuit is **closed or open**, **for** we must understand how **input** and **output** signals work. Later, we **are going to simulate** the circuit, **and** we **will** write a short report about the results.

C. Reading Comprehension:

1. **What** is the class going to build?
 - a) A robot
 - b) A digital circuit
 - c) A power supply
2. **Which** components will they use?
 - a) Only wires
 - b) AND and OR gates
 - c) Only resistors
3. **Why** will the instructor check the circuit?
 - a) To choose colors
 - b) Because they must understand inputs and outputs
 - c) To turn off the LED
4. **What** will students do after simulating?
 - a) Write a short report
 - b) Build a motor
 - c) Create a 3D model

D. Complete with *will* or *going to*

1. We _____ use the simulator to test the circuit.
2. The class _____ build the circuit next week.
3. The instructor _____ help us check the signals.
4. We _____ add a switch and an LED on Monday.

E. FANBOYS – Complete the sentences

(Use: **for, and, nor, but, or, yet, so**)

1. The LED is off, _____ the circuit is open.
2. We need a wire _____ a switch for this activity
3. The AND gate needs two TRUE inputs, _____ the OR gate needs only one.
4. You can test the circuit now, _____ you can check the Components Panel first. → or