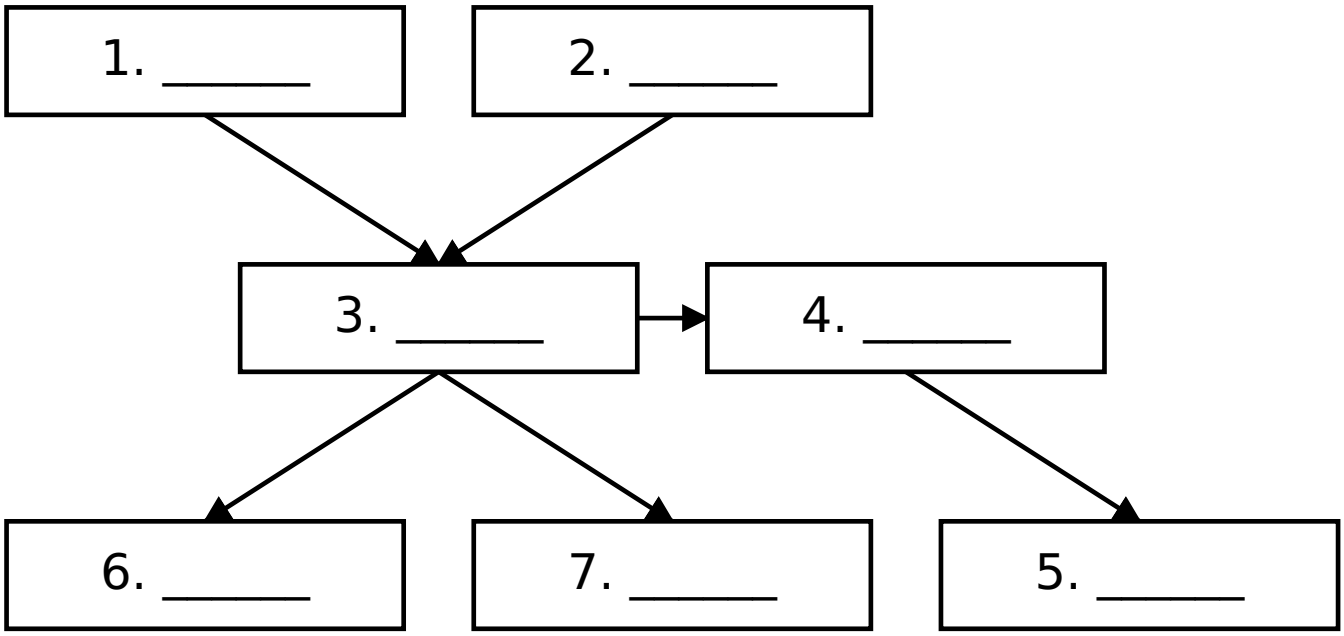
GRID & SILICON
Student sheet

Fuel Cells: Making Electricity Through Chemistry

Name _____ Date _____

Keep the explainer beside you. You may look back for every answer.

Look closer



Word bank: Hydrogen · Air · Fuel cell · Electricity · Computers · Water · Heat

1. Which two inputs meet at the fuel cell?

2. Which output carries warmth away from the cell?

1. Circle the best answer.

1. Which process lets a fuel cell supply electrical energy?

A. Cooling and recharging a battery

B. A controlled chemical reaction

C. Spinning blades in hot gas

2. In the hydrogen example, which electrode receives fuel?

A. Cathode B. Anode C. Outside circuit

3. A tube supplies air to the hydrogen cell. Which electrode receives it?

A. External wire B. Anode C. Cathode

4. A cell designer adds a material that helps its reaction occur. What is that material called?

A. Electrolyte B. Fuel tank C. Catalyst

5. An engineer wants current to do work in a device. Which electron route is useful?

A. Through the external wire circuit B. Back into the incoming fuel pipe C. Only through the electrolyte

6. A hydrogen cell is running. Which outputs need handling besides electricity?

A. Water and heat B. Only stored battery energy C. Fuel and compressed air

7. A data center makes electricity beside its building. What does on-site describe?

A. How much energy is stored B. Where the electricity is made C. A guarantee of zero emissions

8. A delivery problem stops the fuel supply. What limits continued operation?

A. The reaction needs incoming fuel

B. The cell must spin its generator faster

C. The electrolyte stores unlimited energy

9. A data-center fuel cell runs on natural gas. Which claim is most careful?

A. All fuel cells release only water

B. Natural gas removes the need for fuel processing

C. Its system can release CO2

2. Fill in the blank.

Use each word once.

Word bank: fuel cell · anode · cathode

1. A _____ makes electricity through a chemical reaction.

2. The _____ receives hydrogen in this example.

3. The _____ receives air in this example.

3. Label the diagram.

Complete the numbered blanks on page 1 using its word bank.

4. Think about it

1. A battery-powered torch dims after long use. How is its energy supply different from a fuel cell's?

2. A service calls its electricity clean because it uses fuel cells. What would you ask about its fuel?