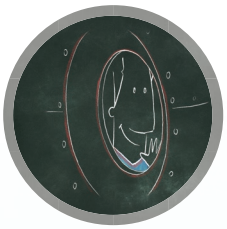


REPRODUCIBLE MASTER

GRADES K-2

ACTIVITY 1 MAKING HISTORY

Planet Power is a fascinating film that follows the amazing journey of Solar Impulse 2, a plane powered only by sunlight, as it is flown around the world by Bertrand Piccard and André Borschberg. Solar Impulse 2 uses sunlight to produce electricity, the same energy source we depend on to power almost everything that is part of our lives. How much do you know about electricity?

Part 1. People have studied electricity for thousands of years. Use the word bank to complete each sentence about an inventor who changed how we understand and use electric power.

WORD BANK **battery Greeks Edison fossil fuels homes light bulb lightning magnets sunlight wires**

A. Ancient _____ thought lightning was made for the god Zeus by the Cyclops.

B. 1749: Benjamin Franklin saw that _____ was electrical. His lightning rod showed us this power for the first time.

C. 1800: Alessandro Volta invented the first _____ with a stack of metal discs.

D. 1831: Michael Faraday used _____ and kinetic energy, or motion, to create electricity.

E. 1838: Artist Samuel Morse found a way to send electrical signals along copper _____.

F. 1880: Thomas _____ created the first modern _____ _____ .

G. 1882: Nikola Tesla built a system to bring electrical current into people's _____ .

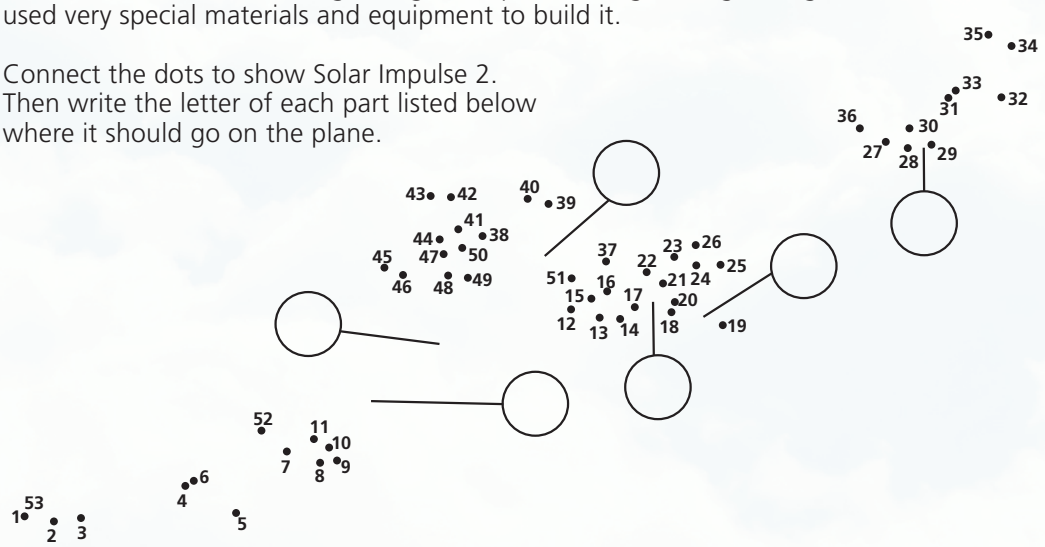
H. 1954: Scientists made solar panels that could turn _____ into electricity.

I. 2016: Bertrand Piccard and André Borschberg were the first to fly a plane all the way around the world using solar power instead of _____ _____ .

Extended Activity:
Gather art materials of your choice and create a collage that tells the story of Solar Impulse 2.

Part 2. Have you ever flown in an airplane? Most planes are very large and heavy. They burn jet fuel to stay in the air. Solar Impulse 2 used only light from the sun. It only weighs as much as a car and has huge wings to capture enough sunlight. Engineers and scientists used very special materials and equipment to build it.

Connect the dots to show Solar Impulse 2.
Then write the letter of each part listed below where it should go on the plane.



PARTS TO LABEL

A. Solar panels capture light from the sun to use for energy.
B. Batteries store the electricity during the day and power the engines and lights at night.
C. Propellers use electricity to keep Solar Impulse 2 in the air.
D. The cockpit is only big enough for one pilot, plus basic supplies like food, and a bathroom.
E. Lightweight materials help the plane fly using less energy.
F. A satellite communication system lets scientists keep track of the plane and speak to the pilot.

Bertrand Piccard was born to use science to change the world! His father, Jacques Piccard, built a submarine that could go deeper into the ocean than ever before. He found amazing new sea life where no one thought life could exist. Bertrand's grandfather, August Piccard, was the first person to fly a hot air balloon high enough to see the curve of the Earth's horizon! What did they have in common with the inventors in Part 1? They *dreamed* big, *worked* hard, *applied* science, and *changed* the world!