

# *Step-by-Step* Using the Explore Mode in Zap!

You can learn about light and electricity in *Zap!* by using two “modes”: the Question & Answer Mode (find the answers to a Star’s questions) and the Explore Mode (explore, experiment, and create). This Step-by-Step Card describes how to use the Explore Mode.


## **Entering Explore Mode**

- 1** Open the Zap! application.
- 2** Log in by selecting a name in the Back Stage Pass list or adding a new name. Click OK.
- 3** Click Blaze (in the middle of the screen) to go to the Laser Lab or click Surge (on the right side of the screen) to go to the ElectroLoft.
- 4** Click Explore in the lower-left corner of the screen to enter Explore Mode.




## **Using the Laser Lab**


The items in this lab are divided into categories. You select a category on the left side of the screen. Once you select a category, the items it contains come into view.

- 1** Click one of the blue icons that represents a category along the left side of the screen. The items that are in the category appear to the right of the category icons.
- 2** Drag any items you want onto the main board.
- 3** After you have placed the items, you can move them by dragging them around the page.
- 4** To rotate an item, drag one of its corners. Notice that the pointer turns into a double arrow .

- 5 To turn on the lasers, click the On/Off switch on the right side of the screen.





- 6 Save your work by opening the slide-out tab on the bottom-left corner of the screen. To do this, click the arrow above the Tour icon, then click Save . Drag the picture of your project into one of the open save slots, give it a name, then click OK.

- 7 Click Print  to print your work. One copy is printed.

- 8 Click the Exit door in the lower-left corner of the screen to return to the main screen.



## Using the ElectroLoft

- 1 To go to the ElectroLoft, click Surge on the right side of the screen and click Explore to enter the Explore Mode.
- 2 To create a circuit on the board, select one of the tools in the gray circles near the bottom of the screen. Drag a part from the bottom of the screen onto the main board. Use the red arrows to see different parts within a category.
- 3 Move items after you have placed them by dragging them on the page.
- 4 To rotate an item, first click the Rotate  button, then drag the item.
- 5 You can create wires by drawing from one point on the grid to another. You can move a wire by dragging it.
- 6 Once you have placed several items on the page, check the current to see if there are any breaks in the circuit. To see the current, click  in the upper-left corner of the screen.
- 7 It is easier to understand the wiring inside of some items (such as light bulbs and batteries) if you look at the blueprint maps rather than real objects. To switch views, click the switch in the upper-left corner of the screen.



- 8 Once you create a circuit, measure volts, amps, and ohms by dragging the items from the left side of the screen and connecting them to the circuit.



- 9 Save your work by opening the slide-out tab on the bottom-left corner of the screen. To do this, click the arrow above the Tour icon, then click Save . Drag the picture of your project into one of the open save slots, give it a name, then click OK.
- 10 Click Print  to print your work. One copy is printed.
- 11 Quit the Zap! application.