Identa-Turtle matching board

The Identa-Turtle is a readily transportable device that allows users to match items from two columns. In this instance, the left column contains six to eight 4 x 6 pictures of turtles. The right column contains an identical number of laminated cards, each with the name of a turtle species and a description of the species. Next to each of the pictures and each of the cards is a metal contact (a screw head and washer). Hinging from the top center of the board are two lines with metal ends (multi-meter probes). When one probe is touching the contact beside a picture and the other probe is touching the contact beside the corresponding description card, a light lights to inform the user that they have correctly matched picture and description. The board could be used to match a variety of sorts of things such as picture of a mature animal and a picture of a baby of the species, a plant and its description or whatever you might want.
The project is actually made of two boards so that it can be free-standing in an A-frame arrangement. There are three hinges connecting the two boards at the top, a handle at the top for carrying and connecting straps on each side toward the bottom. This allows for folding flat for easy carrying and opening up when in use.

On the back of the front board, where the two probes are attached, are a small battery holder with two AA batteries in series with wires attached to the light (which is on the front of the board. If you touch the tips of the two probes to each other, a circuit will be completed and the light will light up. The two probes, the batteries and the light form, in essence, a loop.

Behind the board, a wire connects the contact next to an item in the left column and the contact next to the matching item in the right column, thus linking the two items.

Electrical components for this project came from Radio Shack: battery holder, multi-meter probes, 2.5 volt bulb and bulb holder.

Staples carries 2 x 4 boards made of a compressed foam material that works well.

Any hardware store will carry the small machine screws, metal washers, nuts, hinges (3) and a gate handle. They should also carry terminals for the ends of wires and a crimping tool.