

Winter Wonderland

Reaction 5 - Lighting the Tree!

1. Take the aluminum foil that is a part of the circuit and put it in the copper chloride solution. Be careful to only put in the aluminum foil, and not the alligator clips.

The copper chloride and aluminum react in a single replacement reaction ($A + BC \rightarrow B + AC$), creating aluminum chloride and copper. The aluminum, which was in parallel with the LEDs, breaks and electricity cannot travel through it. So, the electricity in the circuit now goes through the LEDs on the tree instead, lighting them.

Reaction 6 - Presents!

1. Take a present from under the tree and place it into the copper chloride (the blue solution).
2. Use tongs to take the eraser out of the copper chloride solution and place it into the cup of water.
3. Take the eraser out of the water and dry it using the paper towel.

This is the same reaction as above, except this time, the aluminum breaks up to reveal a holiday eraser inside of a present!