Chemistry is the name of the game. Try these fun activities at home to immerse yourself in the world of forensic chemistry.

**Paper Chromatography**

Even ink has unique characteristics and colors are made by mixing inks together. Black ink contains the largest combination of colors. In this exercise you’ll be able to tell the difference between the inks of three different black markers you can’t see with the naked eye.

**Supplies:**
- Paper towels cut up in 1”x2” strips
- Three different brands of water-soluble black markers
- Bowl of water

**Directions:**
1. Using one marker, draw a line on one paper towel strip about half an inch from the bottom; repeat with other markers making three test strips, each with different ink.
2. Dip the first test strip in the water almost to the mark but not touching and put aside.
3. Repeat on the other two test strips.
4. The water will ‘creep up’ through the towel and begin to dissolve the ink. (This is called capillary action.)
5. Watch as the water breaks apart the colors that were used to create the black ink and compare the unique “prints” created from each brand. They could be very different and very colorful!
**Periodic Table Battleship**

**Supplies:**
- Dry erase markers and dry eraser
- 4 laminated STAAR periodic table charts
- 2 file folders
- Binder and paper clips

**Objective:**
Two players take turns calling out a period and a group number on the periodic table of elements to guess the location of their opponent’s ships. The first player to guess the exact locations of his or her opponent’s ships wins.

**Setup:**
1. Using paper clips or tape, create battleship boards by fastening two periodic table charts to the outside of a folder (see image for example).
2. Fasten the two boards together using binder clips or an alternative type of fastener.

**Play:**
1. Using a dry erase marker, each player marks his or her four ships (either vertical or horizontal — **no diagonal**) on the bottom periodic table. The lengths of the 4 ships should all differ (i.e., one 2-element ship, one 3-element ship, one 4-element ship, and one 5-element ship.).
2. Decide who will go first – flip a coin, play a game of Paper, Rock, Scissors or think of something else creative!
3. The first player calls out a period and a group number on the periodic table. The opponent checks that space on their periodic table and reads the name of that element. The opponent says "miss" if there are no ships on that location, or "hit" if he or she guessed a space that contains a ship.
4. Each player marks their guesses on the periodic table of elements at the top, using an "X" for a miss and an "O" for hit.
5. When all of the spaces (elements) in a ship are hit, the opponent announces that his or her ship has been sunk.
6. The first player to sink all of his or her opponent’s ships wins!

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