Activity: Laboratory Equipment Memory Game

FOR THE TEACHER

Summary
In this activity, students will play a modified version of the classic Memory Game in order to help them identify common laboratory equipment by name. This activity provides an opportunity for students to increase their familiarity with the laboratory equipment that they will be expected to properly use.

Grade Level
High and Middle School

Objectives
By the end of this activity, students should be able to

- Correctly identify and name common pieces of laboratory equipment.

Chemistry Topics
This activity supports students’ understanding of

- Laboratory Equipment

Time
Teacher Preparation: 20-30 minutes (initial use; 5 minutes thereafter)
Lesson: 20-30 minutes

Materials

- Game Cards (1 set per pair of students)
- Stock Paper
- Scissors
- Printer
- Laminator (optional)

Safety

- No specific safety precautions need to be observed for this activity.

Teacher Notes

- We suggest printing the game cards using colored ink on stock paper. Teachers (and/or students) could be responsible for individually cutting the cards.
- If the teacher plans to reuse the cards, we also suggest laminating the cards, and again individually cutting the cards before use.
- The game consists of 32 cards in total. This includes drawings of 16 pieces of common laboratory equipment, and a corresponding set of 16 cards that name each piece of laboratory equipment.
- In order to play the game, the cards must first be cut from the template. Students should play the game in pairs, and be given one set of 32 cards per pair.
- **Playing the game:**
  - Prior to beginning the game the cards should be mixed by the students, and placed face-down on a flat surface, such as a table or desk. The cards could be organized in a rectangular grid of 4x8, or they can be place sporadically.
  - Students should take turns in order to play. The first player will choose any two cards to turn over. The purpose is to turn over the picture of a piece of lab equipment and also the card that has its name written on it for a “match”.
o If a successful match is made the student should collect both cards, removing them from the game. If a match doesn’t occur, then the cards should be placed face down in the same location. The teacher should emphasize that students must recognize that a match has occurred in order to collect the pair of cards! This is important part of the game—in order to hold the students accountable for learning the correct names of each piece of lab equipment.

o If a player makes a successful match, that player should get to go again, turning over two additional cards. The player continues their turn until they do not make a match. Then the opponent gets to begin their own turn.

o As the game continues, students will begin to memorize where a certain piece of lab equipment is located, and/or where the card with its name is located.

o The player with the most pairs of matched equipment and names at the end of the game wins!

- Students can play this game multiple times in order to increase their familiarity with the lab equipment.
- Teachers could choose to extend on this game by requiring students to explain what each piece of lab equipment in used for in the lab. Or, teachers may find it valuable for students to locate each piece of equipment in the laboratory.
- The pieces of lab equipment included in this game are: pipet, Bunsen burner, hot plate, graduated cylinder, burette, scoopula, spatula, crucible, watch glass, clay triangle, ring stand, test tube, test tube tongs, volumetric flask, Erlenmeyer flask, and beaker.