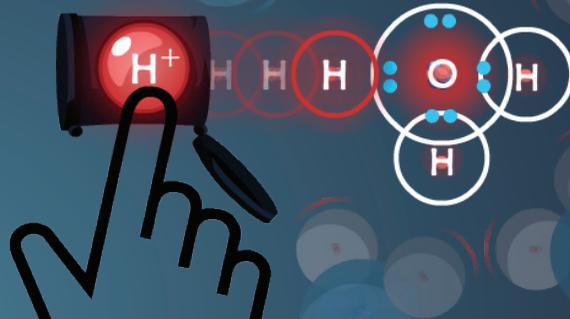


ACIDS & BASES GAME

Integrated chemistry concepts:

- Brønsted-Lowry acids and bases
- Strong vs. weak acids
- Neutralization reactions
- Amphoteric substances



Use Collisions™ **PRE-INSTRUCTIONALLY** to engage your students and explore a topic.

Assign your students the first 5 levels of Acids & Bases. During gameplay, ask your students to answer the following guided questions:

1. What happens on the left side of the game space?
2. What happens on the right side of the game space?
3. What is common about all molecules that you place on the left side of the game?
4. After playing Level 4, what is unique about H₂O?
5. In Level 5, what happens when you place HCN on the left side? Why do you think this happens?

Use Collisions **POST-INSTRUCTIONALLY** to practice, review, and extend the learning.

After instruction, encourage your students to work through the remaining core game levels. To check for student understanding, here are some additional guided questions to incorporate into your lesson:

1. Explain the rules of the Acids & Bases Game game, using some or all of the following keywords: acid, base, strong acid, weak acid, proton donor, proton acceptor.
2. What is a strong acid? In Level 6, which acid is stronger: HCN or HI? Why?
3. What is created when H₂O acts as an acid? (Reference Level 7).
4. In Level 8, what happens to H₂SO₄?
5. How does H₃O⁺ form?

You can also use the Acids & Bases Sandbox to highlight a specific concept integrated into gameplay and encourage your students to earn the built-in Achievements.

Additional resources available at www.playmadagames.com

- **Acids & Bases Game Guide** - Teacher resource that provides an overview of the game.
- **Acids & Bases Student Quest** - Student activity designed to be completed during and after gameplay.
- **Acids & Bases Activity** (Student Version)