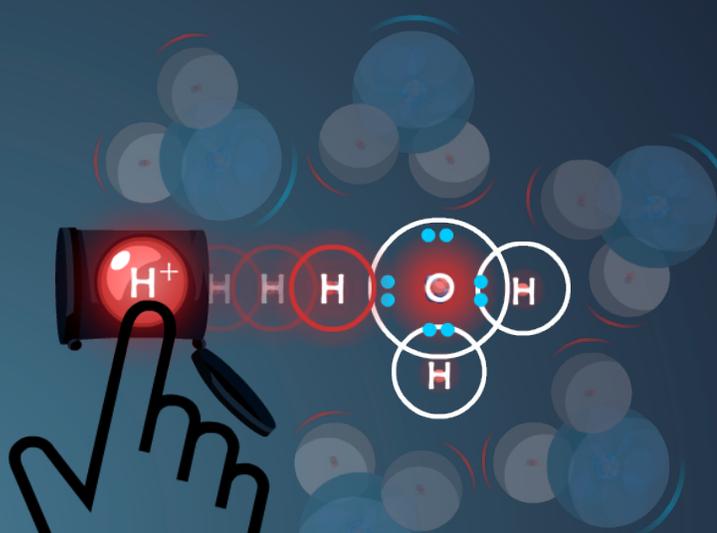


# ACIDS & BASES GAME

## 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 7 levels of Acids & Bases. During gameplay, ask your students to answer the following guided questions:

1. What happens on the left (acid) side of the game space?
2. What happens on the right (base) side of the game space?
3. What is a neutralization reaction? (Level 3)
4. After playing Level 5, what is unique about H<sub>2</sub>O?
5. Level 6 introduces strong and weak acids. What is the difference between a strong acid and a weak acid?

## 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. In Level 8, which acid is stronger: HF or HI? Why?
3. What is created when H<sub>2</sub>O acts as a base?
4. In Level 10, what happens to H<sub>2</sub>SO<sub>4</sub>?
5. What is a conjugate base?
6. What is a conjugate acid?

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 free resources available at [www.playmadagames.com](http://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)