

## Objective

By the end of this lesson, Izzy will have a clear understanding of atoms, their structure, and their significance in the world around us. She will be able to identify the main components of an atom and explain how these components interact to form different elements and compounds.

## Materials and Prep

- Paper
- Pencil or pen
- Colored pencils or markers
- Access to a computer or tablet (optional for research)

Before the lesson, it would be helpful to review basic scientific concepts such as elements, compounds, and the periodic table. This will provide a foundation for understanding atoms more deeply.

## Activities

- **Atom Model Drawing:** Izzy will create a colorful drawing of an atom, labeling its parts: protons, neutrons, and electrons. She can use different colors for each part to make it visually engaging.
- **Element Exploration:** Choose an element from the periodic table and research its atomic structure. Izzy can write a short paragraph about its properties and where it can be found in everyday life.
- **Atomic Stories:** Izzy will write a creative story from the perspective of an atom, describing its life and interactions with other atoms to form molecules. This will help her understand atomic bonds in a fun way.

## Talking Points

- "Atoms are the building blocks of everything around us. Everything you see, touch, and interact with is made of atoms!"
- "An atom consists of three main particles: protons, which are positively charged; neutrons, which have no charge; and electrons, which are negatively charged."
- "The number of protons in an atom determines what element it is. For example, if an atom has one proton, it's hydrogen!"
- "Atoms can bond together to form molecules. This is how we get compounds like water (H<sub>2</sub>O), which is made of two hydrogen atoms and one oxygen atom."
- "Understanding atoms helps us understand chemistry, biology, and even physics. It's like knowing the alphabet before you can read!"