

## 2<sup>nd</sup> Grade - Lesson 6.2

### Atoms Can Be Rearranged To Make Different Molecules

#### NGSS Alignment

#### Performance Expectations

**2-PS1-3 Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.**

#### Disciplinary Core Ideas

##### **PS1.A: Structure and Properties of Matter**

- A great variety of objects can be built up from a small set of pieces. (2-PS1-3)

*Student groups use 10 Snap Cubes to represent different atoms (4 white - hydrogen; 3 red - oxygen; 2 black - carbon; and 1 blue - nitrogen). Using pictures of molecules and an animation, teachers lead students to use the Snap Cubes to make six different common molecules.*

#### Science and Engineering Practices

##### **Planning and Carrying Out Investigations**

- Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (2-PS1-3)

*By using Snap Cubes as models for atoms, students see that the same few atoms in different arrangements make up the molecules of different substances.*

#### Crosscutting Concepts

##### **Energy and Matter**

- Objects may break into smaller pieces and be put together into larger pieces or may change shapes. (2-PS1-3)

*At the macroscopic level, students see that objects can be disassembled into smaller parts and then reassembled into different objects. At the sub-microscopic level, they can use the Snap Cubes as models of atoms and the different objects as models of molecules.*