



# Unit 4: Chemical Reactions

Lesson 16: Some things never change

**Guiding Question:** How can we demonstrate that matter cannot be created or destroyed in a chemical reaction?

**Do Now:** Fill in each chemical name in the tables on pages 7 & 8.

- Recall that ionic bonds are metals+nonmetals and covalent compounds are nonmetals+nonmetals
- Include the state of matter in the name
- Example: #1 – NaCl(s) = solid sodium chloride

#9 – C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>(aq) = aqueous acetic acid

**Polyatomic Ions you will need**



Carbonate



Acetate

# Notes

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- Law of Conservation of Matter: Matter cannot be created or destroyed. In a chemical reaction atoms do not come in and out of existence, they are simply rearranged. Because these atoms have mass, the mass does not change.
- The only time that it may look like the mass has changed is when a gas is produced and leaves the system. If the reaction was done in a closed container, the mass would remain the same

# Closure

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- Complete pages 7 & 8
  - I will stamp if you are complete.
- Achieve 3000: “The Missouri gets a Makeover” due Friday 3/23 at 11:59pm
- Benchmark #3 on 3/28 & 3/29
- Homework #5 due Friday, 3/23