

Chapter 1: Chemical reactions and equations

Experiential Learning

Activity 1: Card Sort

Design a template for students to place their cards on as they sorted.
Template should be on five different types of chemical reactions.

Combination reaction	Decomposition reaction	Displacement reaction	Double Displacement reaction	Redox reaction

Students cut the card and paste in relevant slot.

Cards:

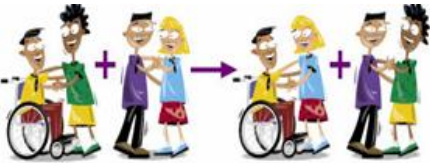
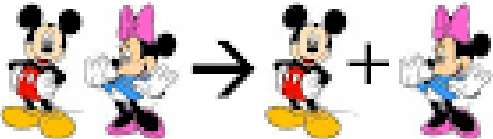
$\text{MgSO}_4 + 2\text{NaCl} \rightarrow \text{Na}_2\text{SO}_4 + \text{MgCl}_2$	$\text{ZnO} + \text{C} \rightarrow \text{Zn} + \text{CO}$	$\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
$\text{Cu} + 2\text{AgNO}_3 \rightarrow \text{Cu}(\text{NO}_3)_2 + 2\text{Ag}$	$\text{C} + \text{O}_2 \rightarrow \text{CO}_2$	$2\text{AgBr} \rightarrow 2\text{Ag} + \text{Cl}_2$

Activity 2

Cartoon Chemistry:

Observe the cartoon given in the box and identify the type of reaction

Write 3 balanced chemical equations in the respective boxes:

Activity 3:

Science doodle notes for types of reactions

- Science doodle notes are a great way to help the students learn science concepts
- Students are engaged as they take creative notes and decorate the doodle to make them their own doodles
- Doodling help content retention
- Doodle notes are a visual aid that will increase student concept retention, focus, creativity and engagement.
- Students will create their own tangible connection in their notes

Curiosity Questions:

Question:

What happens if the chemical reaction does not take place in this world?

Answer guide: (Think about)

- What happens if photosynthesis does not take place in plants?
- Can the food chain exist without plants?

Chemical reactions & equations: (Rancidity)

Curiosity Question:

Why should food containing oil/fat be stored in air tight container?

Answer guide: (Think about)

- Why does the taste and smell of the oil/fat containing food materials change if we keep it in the open air?
- What kind of chemical reaction is responsible for this?
- What can be done to preserve such food materials?