Lesson 7 - Neutralisation

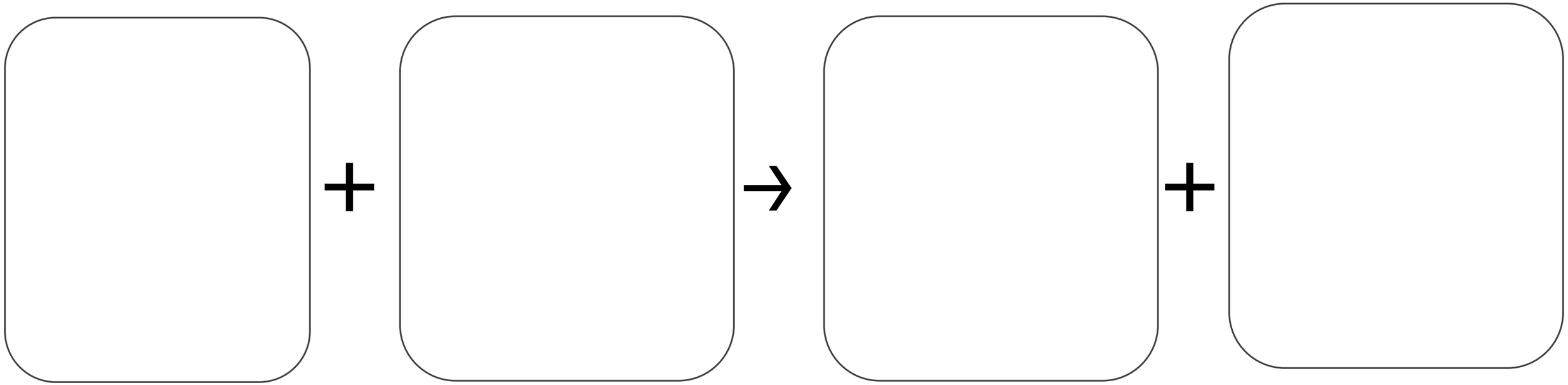
Chemistry - Key Stage 3

Chemical Reactions

Mrs Walsh

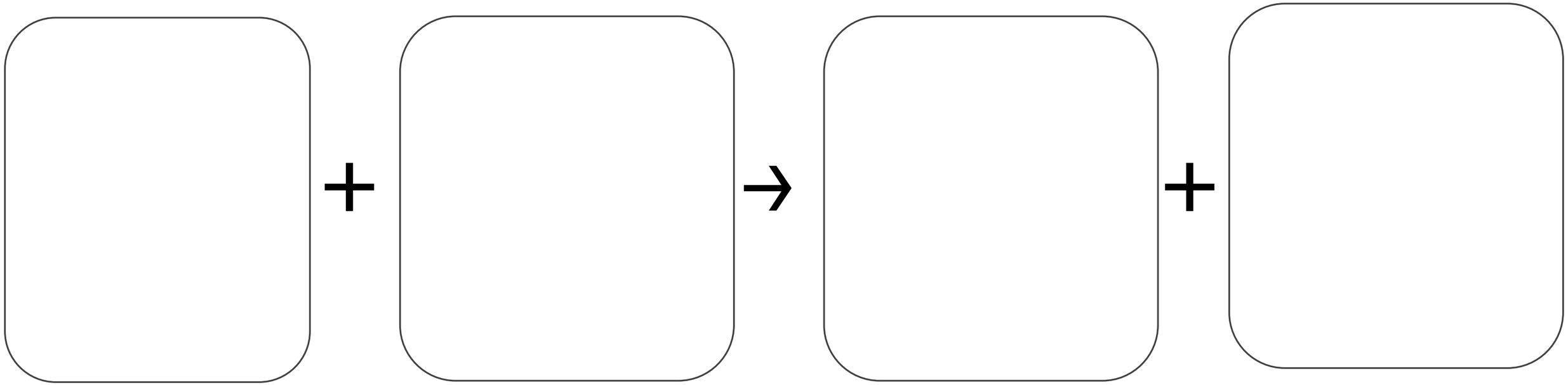
Acid and alkali reactions

Sodium hydroxide and hydrochloric acid



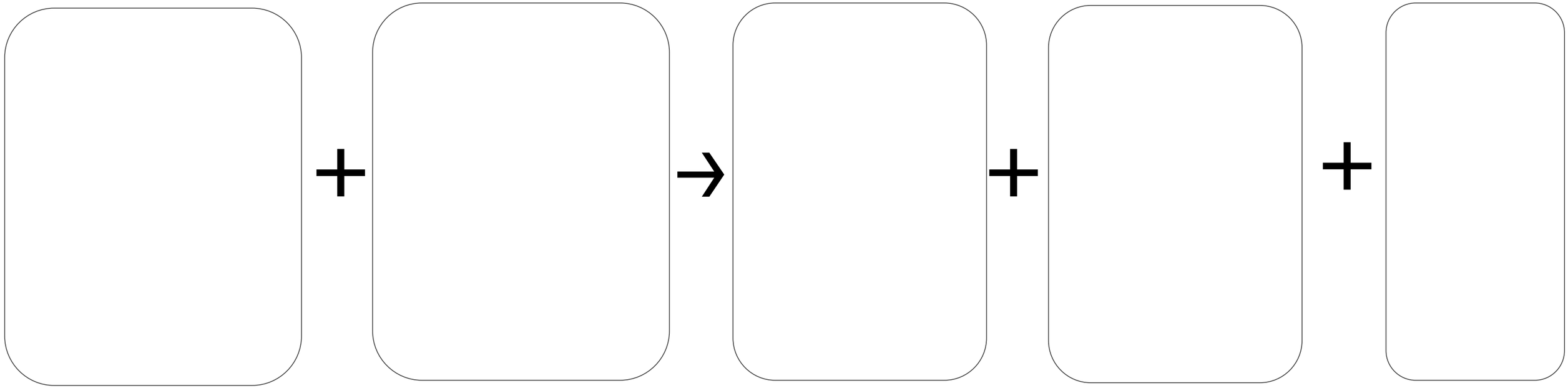
Sodium hydroxide + **Hydrochloric acid** → **Sodium chloride** + **Water**

Lithium hydroxide and hydrochloric acid



Lithium hydroxide + **Hydrochloric acid** → **Lithium chloride** + **Water**

Magnesium carbonate and hydrochloric acid



Magnesium carbonate + Hydrochloric acid → Magnesium chloride + Carbon dioxide + Water

Predicting names of salts

Naming salts - Rules

- First name: **metal** from the alkali used
- Surname:
- **Hydrochloric acid** gives a **chloride** surname
- **Sulfuric acid** gives a **sulfate** surname
- **Nitric acid** gives a **nitrate** surname

Acid + alkali (metal oxide) → salt + water

Acid + alkali (metal hydroxide) → salt + water

Acid + alkali (metal carbonate) → salt + water + carbon dioxide

Naming salts - independent practice

Magnesium oxide	+	Nitric acid	→			+		water
Iron oxide	+	Hydrochloric acid	→			+		
Zinc hydroxide	+	Sulfuric acid	→			+		
Magnesium carbonate	+	Hydrochloric acid	→	Magnesium chloride	+	+		
Calcium carbonate	+		→	Calcium sulfate	+	+		
	+		→	Zinc nitrate		+		water
	+		→	Sodium sulfate	+	+		water

“Bicarb for bees, vinegar for vasps (wasps)”
Explain the science behind this common saying.

A bee sting is .....

Therefore.....

.....

A wasp sting is .....

Therefore.....

.....

Extra information:

Bee sting = pH 4.5 - 5.5
Wasp sting = pH 8

- Bicarbonate of soda is a weak alkali
- Vinegar is weak acid