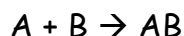


Types of Chemical Reactions

- all chemical reactions involve a change in substances and an change in energy
- can be classified into 5 types:

1) Synthesis Reaction

- = 2 or more substances combine to make a more complex substance
- this could be **elements, compounds or an elements & a compounds**



: example-



2) Decomposition Reaction

- = 1 complex substance is broken down into 2 or more simpler substances
- is the **reverse** of a synthesis reaction



: example-



3) Single Displacement Reaction

- = a single element replaces one element in a compound (**steals its partner**)

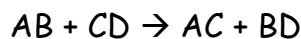


: example-



4) Double Displacement Reaction

- = cation of 1 compound replaces the cation of the 2nd compound (**switch partners**)
- always involves 2 **ionic** compounds in aqueous solution
- usually results in the formation of a precipitate, a gas, or water

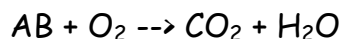


:example-



5) Combustion Reaction

- = O_2 is added to an organic substance (contains C) producing CO_2 and H_2O
- combustion = **burning which requires oxygen gas**



:example-



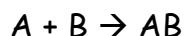
Types of Chemical Reactions

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- this could be _____



: example-

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: example-

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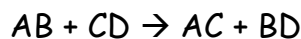
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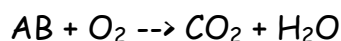


:example-

5) Combustion Reaction

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- combustion = _____



:example-