NEUTRALIZATION

The reaction of an acid with a base is called a "neutralization" reaction. There are two types that are emphasized here.

TYPE 1.	Acid	+	Basic Hydroxide	\rightarrow	H ₂ O +	Salt (ionic compound)
	EXAMPLES (balance these equations:)					
	HCl	+	NaOH	\rightarrow	H_2O +	NaCl
	HCl	+	Ca(OH) ₂	→	H_2O +	$CaCl_2$
	$\mathrm{H_2SO_4}$	+	КОН	→	H ₂ O +	$\mathrm{K_{2}SO_{4}}$
	H_2SO_4	+	Ba(OH) ₂	→	H_2O +	$\mathrm{BaSO_4}$
	H_3PO_4	+	NaOH	\rightarrow	H_2O +	Na_3PO_4
	H_3PO_4	+	Ca(OH) ₂	→	H ₂ O +	$Ca_{3}(PO_4)_2$
TYPE 2.	Acid	+	Ammonia	\rightarrow	Ammoniu	ım Salt (ionic compound)
	EXAMPLES (balance these equations:)					
	HCl	+	NH_3	→	NH ₄ Cl	
	H_2SO_4	+	NH_3	→	$(NH_4)_2SO_4$	
	H_3PO_4	+	NH_3	→	(NH ₄) ₃ PO	4