And unconditioned response (UR) is a reflexive, unlearned reaction to an unconditioned stimulus. eg. blinking when someone blows in your eye.

A neutral stimulus (NS) is a stimulus that does not elicit a response.

A conditioned stimulus (CS) is a once neutral stimulus that elicits a conditioned response because it has a history of being paired with an unconditioned stimulus.

A conditioned response (CR) is the learned response that occurs to the conditioned stimulus.

eg.

Before conditioning

US (food) ————> UR (salivation)
NS (metronome) ————> No salivation

During conditioning

NS (metronome) —> US (food) -> UR (salivation)

After conditioning

CS (metronome) ————> CR (salivation)

Acquisition, extinction, spontaneous recovery and excitatory/inhibitory conditioning

Acquisition is the initial phase of learning in which a response is established; so in classical conditioning, acquisition is the phase in which a neutral stimulus is repeatedly paired with the US. The consistency of how often the CS and the US occur together is very important. Even once a response is fully acquired, there is no guarantee that it will persist forever.

Extinction is the loss of weakening of a conditioned response when a conditioned stimulus (eg. metronome) and unconditioned stimulus (eg. food) no longer occur together. If an excitation occurs, a once established conditioned response can return.

(Standard extinction - present CS without US. Random extinction - present the CS an US at random times)

Spontaneous recovery is the reoccurrence of a previously extinguished response, typically after some time has passed since extinction. Extinction does not seem to result in ‘forgetting’, but instead seems to involve learning something new.

Excitatory conditioning - the CS is associated with the presentation of the US