**Linear Regression**

How it works:Linear regression is a **linear model**, e.g. a model that assumes a linear relationship between the input variables (x) and the single output variable (y). More specifically, that y can be calculated from a linear combination of the input variables (x).

**Logistic Regression**

How it works: Logistic Regression measures the relationship between the dependent variable (our label, what we want to predict) and the one or more independent variables (our features), by estimating probabilities using it’s underlying logistic function.

**Decision Trees**

How it works: Decision tree builds classification or regression models in the form of a tree structure. It breaks down a dataset into smaller and smaller subsets while at the same time an associated decision tree is incrementally developed. The final result is a tree with decision nodes and leaf nodes.

**Support Vector Machines**

How it works: Support Vectors are simply the co-ordinates of individual observation. Support Vector Machine is a frontier which best segregates the two classes (hyper-plane/ line).

**Clustering Algorithm**

How it works: the algorithm calculates the average of all the points in a cluster and moves the centroid to that average location. After the point moves, it becomes the “clustering” of data on the chart to segment different data points.

**Naïve Bayes**

How it works: Naive Bayes is a kind of classifier which uses the Bayes Theorem. It predicts membership probabilities for each class such as the probability that given record or data point belongs to a particular class.

**CNN**

How it works: A CNN will learn to recognize patterns across space. So, as you say, a CNN will learn to recognize components of an image (e.g., lines, curves, etc.) and then learn to combine these components to recognize larger structures (e.g., faces, objects, etc.).

**RNN**

How it works:  that a RNN will similarly learn to recognize patterns across time. So a RNN that is trained to translate text might learn that "dog" should be translated differently if preceded by the word "hot".

https://datascience.stackexchange.com/questions/11619/rnn-vs-cnn-at-a-high-level

**Autoencoder**

How it works: Autoencoders (AE) are a family of neural networks for which the input is the same as the output\*. It tries to reconstruct its input to produce the same output.

**https://towardsdatascience.com/deep-inside-autoencoders-7e41f319999f**