Tornadoes are dangerous rotating vortex's of air that are in contact with the surface of the earth and a cumulonimbus cloud or in some cases a cumulus cloud. A Cumulonimbus cloud is a tall vertical cloud that is dense and is often involved in thunder storms. It originates from the Latin language and Cumulus mean 'accumulated' and Nimbus means 'rain'. A cumulus cloud are a type of cloud that are also noticeably vertical.

Tornadoes come in various shapes and forms but the most common type is a visible funnel which narrows the closer it gets to the earth’s surface. Most funnels have a wind speed of less than 110 mph and are approximately 80m in diameter. They can travel up to a few miles before dissipating. However the more dangerous and extreme tornadoes have reaches up to 300mph in wind speed and have been as big as 2 miles and have travelled over 100km.

Tornadoes are found all over the world apart from in Antarctica. The majority of Tornadoes are found in Tornado Alley in the United States. The main scale used to measure a tornado is the Fujita scale which rates a tornado by the damage caused not by its speed or strength. This may lead to misinterpretations as if the area is less populated then it would be at the low end of the scale no matter how large the tornado. And if it is a highly populated then it may be a small tornado but the factor will be high.

The scale works like this:

F0 - Light damage: some damage to chimneys, branches broken from trees and some blown over. Speed 0-73 Mph.
F1 - Moderate Damage: Moving cars blown off roads, mobile homes overturned or pushed of foundations. Speed 73-112 Mph.
F2 - Considerable damage: Mobile homes demolished, large trees snapped or uprooted, cars lifted off the ground. Speed 113-157 Mph.
F3 - severe damage: Trains overturned, most trees uprooted, heavy cars thrown, walls of homes destroyed. Speed 158-206 Mph
F4 - devastating damage: well constructed buildings destroyed, large objects thrown. Speed 207-260 Mph.
F5 - Incredible damage: Cars thrown more than 100 metres, strong buildings swept away. Speed 261-318 Mph.

Tornadoes are not necessarily always visible but the water vapour may make it as a visible funnel cloud or condensation funnel. They can be narrow funnel of a few hundred yards or can be a wedge tornado which are large single vortex tornadoes. Rope tornadoes are thinner and a twist in complex shapes. Tornadoes normally rotate cyclonically (counterclockwise in northern hemisphere, clockwise in the southern). Only 1% of tornadoes rotate in an anticyclonical direction and these are usually weaker tornadoes.
They can come in a few different colours, usually dependant on the environment or area in which they are formed. Also it depends on the debris that is picked up during its travel.

Tornadoes often develop from supercells. These are formed when there is intense or unseasonable heat in an area. This causes the ground temperatures to increase and causes moist air to heat and rise. When the moist warm air meets the cold dry air, it explodes upwards and a thunder cloud begins to build. A storm then quickly develops. The upward movement of air causes air from surrounding areas to rush in to replace it. Air coming from two different directions can coincide and cause the centre air mass to rotate. A visible funnel then drops from the cloud and descends towards the ground.

Supercells are thunderstorms that have a mesocyclonic, rotating updraft which can also inadvertently lead to the formation of tornadoes. Supercells are often put into two different classifications: Low precipitation and High precipitation.

Supercells get their rotation through tilting of horizontal rotation caused by wind shear. Strong updrafts cause this air to turn vertically. A cap is usually required to form the updraft of sufficient strength and prevents it from dissipating.

The Vertical rotation can form a tornado as it is believed that the rotating mass of air can descend slightly from the cloud and form the funnel. This is a tornado.

Not only are supercells common around tornadoes but lightning is often also seen around tornadoes. This is due to the fact that tornadoes are usually formed from thunder storms, from which lightening is also from. Lightning is a simply discharge of potential difference between the cloud and the ground, or the cloud and another cloud. There will be a stepladder of negative charge that forms between the ground and the cloud which when it connects the two the lightening will in fact move upwards to meet the cloud. The following thunder noise is the compression of the air due to the intense heat that is given off by the strike. You see the lightning before hearing the thunder due to the difference in the speed of light and the speed of sound. After many lightening strikes from a storm cloud it will eventually remove the potential difference and the lightening will cease.

Tornadoes are mostly found in America and in different areas at different times of the year. This means it is usually a hot topic for their country and they have developed some methods of damage management and tornado predicting to help the people prepare for the storms that may be occurring.

They have a storm prediction centre which issues daily outlooks for storms in the area. They are meteorologists who work on careful observations of the storms development. If they see certain things that may indicate rotational winds then they can issue a warning over radio, television and most towns also have an alarm which can sound to warn people that a storm/tornado may be approaching. This will give people the much needed time to get to safety before it strikes.

In 24 hours the highest outbreak of tornadoes from a single spawn was 148 confirmed. This lead to a death toll of 319 for the united states. It produced 6 F5 and 24 F4 tornadoes. The deadliest single
tornado was in 1925 and was the tri state tornados which killed 695 people. The death toll for tornadoes can be quite high and low, depending on the type of tornado, severity and the area in which it strikes.

The dictionary says that a tornado is 'a localized, violently destructive windstorm occurring over land and characterized by a long funnel shaped cloud extending toward the ground made visible by condensation and debris'. However I think it can be much more than this in size, shape and form and how its destructive potential can be truly massive.