In this thesis the theory of general relativity is rewritten into a gauge Chern-Simons theory. The vielbein formalism is used for this purpose. It is shown that the action of such a theory corresponds to the Einstein-Hilbert action. The most important properties of the Chern-Simons theory are investigated. However the aim is to extend this description of spin-2 particles to the higher spin ones. This is done through treating Lie algebra generators and their potentials. Properties of the spin-2 solution are discussed in this context. An example of higher spin solutions, so-called conical defects, is also given.