Dzyaloshinsky-Moriya spin-orbit interactions arise in systems breaking mirror symmetry. Examples include three-dimensional compounds, multilayers and surfaces. In recent years Dzyaloshinskii-Moriya interactions receive increasing scientific interest, because they may stabilize magnetic properties with a unique chirality. This is of great interest for a variety of applications including, for instance, multiferroic and spintronic devices. On a more fundamental level it has been predicted that DM interactions may stabilize quantum order in chiral magnets, notably novel spin textures that share certain similarities with liquid crystals. I will give a basic introduction to DM interactions and the rich physics they may produce. Our own interest in this field has been largely inspired by experimental studies of the cubic itinerant-electron helimagnet MnSi. I will review the mysteries related to this material and present recent experimental progress in our understanding of this compound.