• Account for why solid metals can conduct an electric current, but solid ionic compounds cannot.	**Marks 3**

The crystal structure of a metal consists of a lattice of positively charged nuclei surrounded by a "sea of electrons". These electrons are free to move under the influence of an electric field so can conduct the current.

An ionic solid consists of a lattice of positive and negative ions, packed together to minimise repulsion and maximise attraction. The atomic nuclei are fixed in place and all the electrons are localised around them so they are unable to conduct the current (They can conduct current when molten as the ions are then free to move.)