



# Chem!stry

Name: ..... ( )

Class: .....

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## Dot-and-Cross Diagrams to Represent the Structures of Compounds – Advanced – Answers

Draw dot-and-cross (• and ×) diagrams to show the arrangement of the electrons, and hence the bonding, in the following compounds. There is no need to draw the inner electron shells – draw the valence electron shells only. Remember to include a key in your answer.

<p><b>Germanium Tetrachloride – Formula: <math>GeCl_4</math></b></p> <p>Key: • = electron of Cl × = electron of Ge</p>	<p><b>Ethene – Formula: <math>C_2H_4</math></b></p> <p>Key: • = electron of left-hand C and right-hand H × = electron of right-hand C and left-hand H</p>
<p><b>Ethyne – Formula: <math>C_2H_2</math></b></p> <p>Key: • = electron of left-hand C and right-hand H × = electron of right-hand C and left-hand H</p>	<p><b>Calcium Hydroxide – Formula: <math>Ca(OH)_2</math></b></p> <p>Key: • = electron of O × = electron of Ca and H</p>
<p><b>Ammonium Chloride – Formula: <math>NH_4Cl</math></b></p> <p>Key: • = electron of N and Cl × = electron of H</p>	<p><b>Sodium Ethanoate – Formula: <math>NaCH_3COO</math></b></p> <p>Key: • = electron of left-hand C and O × = electron of right-hand C, H and Na</p>