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| **Topic heading** | **Syllabus Ref** | **Idea cluster** | **Question 1** | **Question 2** | **Question 3** | **Question 4** |
| **KS3 Atoms and the Periodic Table** | **KS3 C2** | **Atoms and Elements** | **Atoms consist of:****A A dense nucleus with electrons orbiting close to the nucleus****B A low density nucleus with electrons orbiting close to the nucleus****C A dense nucleus with electrons orbiting at a great distance from the nucleus****D A low density nucleus with electrons orbiting at a great distance from the nucleus** | **Electrons:****A are positively charged****B are negatively charged****C have no charge****D can be positively and negatively charged** | **Elements are substances:****A made from two or more different types of atoms****B made from only one type of electron****C made from compounds****D made from only one type of atom**  | **Atoms of different elements can bond together to form:****A Mixtures****B Compounds****C Atoms****D Molecules** |
|  |  |  | **C** | **B** | **D** | **B** |
|  |  | **Periodic Table** | **Metal elements are found:****A on the right of the Periodic Table****B in the centre and on the right of the Periodic Table****C on the left of the Periodic Table****D in the centre and on the left of the Periodic Table** | **Elements in the same group have:****A similar chemical properties****B the same chemical properties****C different chemical properties****D the same physical properties** | **Non-metal elements are found:****A on the right of the Periodic Table****B in the centre and on the right of the Periodic Table****C on the left of the Periodic Table****D in the centre and on the left of the Periodic Table** | **In the Periodic Table:****A Elements are listed in alphabetical order****B Elements are organised in groups according to their properties****C Elements are randomly arranged****D Elements with similar properties form rows** |
|  |  |  | **D** | **A** | **A** | **B** |
|  |  | **Reactions** | **A more reactive metal element:****A Cannot displace a less reactive metal element in a compound****B Can displace a less reactive metal element in a compound****C Cannot displace a less reactive non-metal element in a compound****D Can displace a less reactive non-metal element in a compound** | **Metals often react and bond with:****A Other metals to form compounds****B Other metals to form molecules****C Non-metals to form compounds****D Non-metals to form molecules** | **Metal oxides react with:****A Alkalis to form a salt and carbon dioxide****B Acids to form a salt and oxygen****C Alkalis to form a salt and hydrogen****D Acids to form a salt and water** | **Non-metal elements react with oxygen to form:****A Alkaline oxides****B Alkaline hydroxides****C Acidic Hydroxides****D Acidic oxides** |
|  |  |  | **B** | **C** | **D** | **D** |
|  |  | **Conductors & Insulators** | **An electric current is****A The movement of atoms****B The movement of compounds****C The movement of electrons****The movement of molecules** | **Materials can be statically charged by rubbing due to:****A Electrons moving from one insulator onto another****B Atoms moving from one insulator onto another****C Electrons moving from one conductor onto another****D Atoms moving from one insulator onto another** | **Metals are electrical conductors because:****A Their atoms move when connected in a complete circuit****B They have electrons in fixed positions throughout the metal****C They become charged****D They have electrons that are free to move through the metal** | **An insulator becomes positively charged when:****A Electrons are transferred onto the material****B Electrons stay where they are****C Electrons are lost from the material****D They gain positive charges** |
|  |  |  | **C** | **A** | **D** | **C** |
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