CC4a Elements and the periodic table

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| Word | Pronunciation | Meaning |
| **chemical property** | **kem**-ik-al | How a substance reacts with other substances. |
| **periodic table** |  | An ordered list of all known elements. |
| **physical property** | fi-**zi-kal** | A description of how a material behaves and responds to forces and energy. Hardness is a physical property. |
| **prediction** | pred-**ik**-shun | What you think will happen in an experiment and why you think this. |
| **relative atomic mass, *A*r** |  | The mean mass of an atom relative to the mass of one-twelfth of an atom of carbon-12, which is assigned a mass of 12. The *A*r of an element is the mean relative mass of the isotopes in the element. |

CC4b Atomic number and the periodic table

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| Word | Pronunciation | Meaning |
| **atomic number** |  | The number of protons in the nucleus of an atom (symbol *Z*). Also known as the proton number. |
| **group** |  | A vertical column of elements in the periodic table. Elements in the same group generally have similar properties. |
| **inert** |  | Does not react. |
| **period** |  | A horizontal row in the periodic table. |
| **relative atomic mass** |  | The mean mass of an atom compared to 1/12th the mass of an atom of carbon-12. (One atom of carbon-12 has been assigned a mass of 12.) |
| **X-ray** |  | Electromagnetic radiation that has a shorter wavelength than UV but longer than gamma rays. |

CC4c Electronic configurations and the periodic table

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| Word | Pronunciation | Meaning |
| **electron** |  | Tiny particle with a negative charge that is found in shells around the nucleus of an atom. |
| **electron shell** |  | Areas around a nucleus that can be occupied by electrons, usually drawn as circles. Also called an electron energy level. |
| **electronic configuration** |  | The arrangement of electrons in shells around the nucleus of an atom. |