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| Science 9 | Unit B  |
| Section 2.2 – 2.3: Organizing the Elements | 84 Mins |

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| **Organizing the Elements**All Elements have a different mass (Atomic Mass)**Finding a Pattern**Using the Atomic Mass and other known properties, the 63 known elements were organizedThis organization predicted new elementsFuture elements were able to be placed in the gaps in the later years**Periodic Table** Periods – Horizontal RowsNumbered 1 - 7Left side are Metals, Right Side are non-metalsThe period number tells you how many electron shells the element hasGroups (Family) – Vertical ColumnsNumbers 1-18Elements in the same group have similar propertiesElement SymbolsOne or two (Second always lowercase) letters representing the elementSame for all languagesAtomic NumberNumber of Protons(Same number of Electrons)Atomic Mass Total mass of all Protons and NeutronsMetalsShiny, Malleable, and conduct electricityNon-MetalsDull, Brittle, usually don’t conduct electricityMetalliodsBoth metal and non-metal propertiesStateSolid liquid or gas at 20oC | Atomic Mass – the mass of one atom of an elementMendeleev1. Has 2 Elements

2-3) Have 84-5) Have 186-7) Have 32 Hydrogen Period 1: 1 Electron ShellDrawChlorine Period 3: 3 Electron ShellsDraw (2 8 7)1. Alkali Metals (Highly Reactive to Air or Water)
2. Alkali Earth Metals (Reactive to Air or water)

3-12) Transition Metals17) Halogens Most Reactive Non-Metals18) Noble Gases (Stable.. unreactive)Carbon = CChlorine = ClIron = Fe (Ferrum) |