SUBJECT: Chemistry YEAR: 9 MTP TITLE: Atoms HALF TERM: 6 NO. OF LESSONS (approx): 10

Deliberate and specific retrieval of expected prior knowledge (be specific)

Retrieval should occur regularly throughout the learning journey:

KS3

- Definition of an atom, element and compound
- A simple (Dalton) atomic model.
- Differences between an atom, element and compound.
- Chemical symbols and formulae for elements and compound.

Academic transformation (be specific)

Your core curriculum must do all of the following:

- Describe the structure of an atom, including the mass and charge of each sub-atomic particle.
- Draw the electron configuration of the first 20 elements.
- Define an isotopes.
- Draw and describe how an atom becomes and ion.
- Describe the history of the atom.
- Describe the observations when group 1 metals are added to water.
- Explain the trend in reactivity down group 1.
- Describe the appearance of group 7 elements and explain the trend in reactivity down group 7.
- Complete displacement reactions using group 7 elements.
- Balance chemical equations.
- Describe the history of the periodic table.

Personal transformation (2 or 3)

Can I Learning Questions

- ***Can I describe the structure of the atom?***
- ***Can I explain how an atom becomes an ion?***
- ***Can I compare the sub-atomic particles in two isotopes?***
- ***Can I describe how the atom has changed over time?***
- ***Can I describe and explain the trend in reactivity down group 7?***
- ***Can I balance a chemical equation?***

Literacy

Key vocabulary
Proton, electron, neutron, nucleus, isotopes, lose, gain, ion, trend, increase, decrease, reactivity, electrostatic, solid, liquid, gas, atom, molecule, compound.

- ***Disciplinary reading***

Classroom talk

Misconceptions (5 or 6 examples)

- When an atom loses an electron it becomes a positive ion.