## Science Long-Term Plan



<u>Long-term planning (LTPs)</u> - Planning how the key concepts, knowledge, skills identified in the Progression map will be delivered termly per year group

Ensuring that end points & NC/spec are covered

Identifying what assessments are planned and when

Ensuring whole school intent priorities to be planned for

This plan is based on a single teacher at Newport

A group which has a 2:1 teacher split has a slightly different map but identical content

Olney have a 3 unit rotation due to 5 science groups being on at the same time

| ( <mark>Year 8</mark> ) |                        |                       |                        |                        |                      |                        |  |  |  |  |
|-------------------------|------------------------|-----------------------|------------------------|------------------------|----------------------|------------------------|--|--|--|--|
|                         | Autumn 1               | Autumn 2              | Spring 1               | Spring 2               | Summer 1             | Summer 2               |  |  |  |  |
| Unit title:             | Organisation           | Electricity &         | Chemical reactions 2   | Light & sound          | Evolution            | Photosynthesis         |  |  |  |  |
|                         |                        | magnetism             |                        | Respiration            |                      | Earth's resources      |  |  |  |  |
|                         |                        | Periodic table        |                        |                        |                      |                        |  |  |  |  |
| Unit length:            | 15 lessons             | 18 lessons            | 18 lessons             | 13 lessons             | 10 lessons           | 7 lessons              |  |  |  |  |
|                         |                        | 11 lessons            |                        | 7 lessons              |                      | 13 lessons             |  |  |  |  |
| Key concepts:           | Digestion              | Electricity magnetism | Reactions of metals    | Properties of waves    | What causes          | How do plants make     |  |  |  |  |
|                         | Movement               | and their connection  |                        | Properties of light &  | organisms to change  | food                   |  |  |  |  |
|                         | Breathing              |                       | Manufacture of salts   | sound                  |                      |                        |  |  |  |  |
|                         |                        | How the periodic      | and the naming of      | Colour                 | Charles Darwin       | Structure of the Earth |  |  |  |  |
|                         |                        | table evolved         | compounds made         | How animals produce    |                      | and its finite         |  |  |  |  |
|                         |                        | Dalton                |                        | their energy           | What causes          | resources              |  |  |  |  |
|                         |                        | Lavoisier             |                        |                        | Extinction           |                        |  |  |  |  |
|                         |                        | Mendeleev             |                        |                        |                      |                        |  |  |  |  |
| Knowledge/              | Practical skills       | Graph plotting        | Practical skills       | Practical skills       |                      | Microscopes            |  |  |  |  |
| Skills:                 | Working scientifically | numeracy              | Working scientifically | Working scientifically |                      | Practical skills       |  |  |  |  |
|                         |                        |                       |                        |                        |                      | Working scientifically |  |  |  |  |
|                         |                        |                       |                        | Graph plotting         |                      |                        |  |  |  |  |
|                         |                        |                       |                        | numeracy               |                      |                        |  |  |  |  |
| End points              | Digestion              | Currents              | Reactions and          | Reflection             | Variation            | Photosynthesis         |  |  |  |  |
| covered:                | Movement               | Resistance            | reactivity of metals   | Refraction             | Chromosomes          | Leaf structure         |  |  |  |  |
|                         | Breathing              | Circuits and symbols  | Salts                  |                        | Natural selection    |                        |  |  |  |  |
|                         |                        | Magnetism             |                        | Aerobic & anaerobic    | Artificial selection | Earthquakes/volcanos   |  |  |  |  |
|                         |                        |                       |                        | respiration/           | Extinction           | Rocks & rock cycle     |  |  |  |  |

|                         |                               | Electromagnets and uses  |                                       | Fermentation and its importance                                      |                  | Extraction of metals from ores  |
|-------------------------|-------------------------------|--|---------------------------------------|--|------------------|---|
| NC/Spec<br>coverage:    |                               |  |                                       |  |                  |   |
| Cross-curricular links: |                               |  |                                       |  |                  |   |
| Assessments:            | Organisation end of unit test | Electricity & magnetism end of unit test Periodic table end of unit test | Chemical reactions 2 end of unit test | Light & sound<br>end of unit test<br>Respiration end of<br>unit test | End of Year exam | Photosynthesis<br>end of unit test<br>Earth's resources end<br>of unit test |
| Other school inte       | ent priorities                |  |                                       |  |                  |   |
| New                     |                               |  |                                       |  |                  |   |
| experiences –           |                               |  |                                       |  |                  |   |
| broadening              |                               |  |                                       |  |                  |   |
| horizons                |                               |  |                                       |  |                  |   |
| Developing              |                               |  |                                       |  |                  |   |
| character –             |                               |  |                                       |  |                  |   |
| Kind, Hard              |                               |  |                                       |  |                  |   |
| Working,                |                               |  |                                       |  |                  |   |
| Successful              |                               |  |                                       |  |                  |   |
| Context specific        |                               |  |                                       |  |                  |   |
| need –                  |                               |  |                                       |  |                  |   |
| diversity,              |                               |  |                                       |  |                  |   |
| inclusion;              |                               |  |                                       |  |                  |   |
| reading,                |                               |  |                                       |  |                  |   |
| literacy; mental        |                               |  |                                       |  |                  |   |
| health                  |                               |  |                                       |  |                  |   |
| Curriculum              |                               |  |                                       |  |                  |   |
| Careers -               |                               |  |                                       |  |                  |   |
| Gatsby 4                |                               |  |                                       |  |                  |   |