## Science Progression of Skills and Knowledge PLANTS

Key to understanding this document: Black = National Curriculum objectives Red = Knowledge/Skills to be taught Green = Resources to be used

| Area of         | <u>EYFS</u> | Year 1                       | Year 2            | Year 3              | Year 4            | Year 5   | Year 6 |
|-----------------|-------------|------------------------------|-------------------|---------------------|-------------------|--|--------|
| <u>Learning</u> |             |                              |                   |                     |                   |  |        |
| <u>Plants</u>   |             | Working                      | Working           | Working             | //)               |  |        |
|                 |             | scientifically:              | scientifically:   | scientifically:     |                   |  |        |
|                 |             | Using simple                 | Using             | Record findings     |                   |  |        |
|                 |             | observations to              | observations and  | using a labelled    |                   | No.  |        |
|                 |             | identify and                 | ideas to answer   | diagram.            |                   | p. 1   |        |
|                 |             | classify.                    | questions.        | Using               |                   | The same of the sa |        |
|                 |             | 1 Identify and               | P1 Observe and    | straightforward     |                   | /  |        |
|                 |             | name a variety of            | describe how      | scientific          | ARS I             | and the  |        |
|                 |             | common wild and              | seeds and bulbs   | evidence to         | The second second | 12:  |        |
|                 |             | garden plants                | grow into mature  | answer simple       |                   |  |        |
|                 | 4           | including                    | plants.           | questions.          |                   |  |        |
|                 |             | deciduou <mark>s a</mark> nd | Plant seeds and   | P1 Identify and     |                   | -  |        |
|                 |             | evergreen tree.              | bulbs and         | describe the        | 100               | No. of the last of |        |
|                 |             | Children to see              | observe over      | functions of        |                   | Minery .   |        |
|                 |             | examples of                  | time. Taking      | different           | 2.81              | 4.79   |        |
|                 |             | common wild and              | photographs to    | flowering plants:   |                   | and the second   |        |
|                 |             | garden plants e.g.           | see change/       | roots,              |                   |  |        |
|                 |             | through a walk.              | children could    | stem/trunk,         | 35/ . ^           | de la  |        |
|                 |             | Children to                  | create a diary to | leaves and          |                   |  |        |
|                 |             | record through               | see change over   | flowers.            |                   |  |        |
|                 |             | drawings.                    | time.             | Identify the        | ( )               |  |        |
|                 |             |                              |                   | function of each    | a particular      |  |        |
|                 |             |                              |                   | part e.g. the roots | - C / -           |  |        |
|                 |             |                              |                   | suck up the         | 11.               |  |        |
|                 |             |                              |                   | water, the stem     |                   |  |        |
|                 |             |                              |                   | transports the      | No.               |  |        |
|                 |             |                              |                   | water, the leaves   |                   |  |        |

| N/ 1:              | 147 11             |                     | _      |     |
|--------------------|--------------------|---------------------|--------|-----|
| Working            | Working            | catch the sun       |        |     |
| scientifically:    | scientifically:    | light etc.          |        |     |
| Observing closely. |                    |                     |        |     |
|                    | simple test        | Working             |        |     |
|                    | choosing one       | scientifically:     |        |     |
| P2 identify and    | variable.          | Gathering,          |        |     |
| describe the basic |                    | recording,          |        |     |
| structure of a     | Observing closely  | classifying and     |        |     |
| variety of         | using simple       | presenting data in  |        |     |
| common             | equipment.         | a variety of ways.  |        |     |
| flowering plants,  | P2 Find out and    |                     |        |     |
| including trees.   | describe how       | Setting up simple   |        |     |
| Label - Stem,      | plants need        | practical           |        |     |
| petal, flower,     | water, light and a | enquiries.          |        |     |
| leaf, root         | suitable           | (variables given    |        |     |
| Trees, branches    | temperature to     | to children)        |        |     |
| trunk leaf.        | grow healthy.      |                     |        |     |
| 171                | Plant cress in     | Using results to    |        |     |
| 41 300000          | different          | draw simple         |        |     |
| 175                | conditions e.g.    | conclusions         |        |     |
| 100                | dark, cold,        | through pictures    |        |     |
| 0.7                | without water.     | and simple          |        |     |
|                    | Children to know   | sentences.          |        | 100 |
| 24 100             | the difference     |                     |        |     |
|                    | between growth     | P2 explore the      |        |     |
| 62                 | and germination.   | requirements of     |        |     |
| (0)                | E.g. seed needs    | plants for life and |        |     |
| 0.00               | light to grow but  | growth (air, light, |        |     |
|                    | not to germinate.  | water, nutrients    |        |     |
|                    | not to Berminater  | from soil and       | $\neg$ | 1   |
|                    |                    | room to grow.)      |        |     |
|                    |                    | and how they        |        |     |

|  | vary from plant to   |
|--|--|
|  | plant.   |
|  | Observe the life   |
|  | cycle of a plant   |
|  | and how each   |
|  | function supports  |
| (I) a transfer to the contract of the contract | the growth of the  |
| The second secon | plant. E.g.  |
|  | Sunflower and  |
|  | dandelion.   |
|  |  |
|  | Compare large  |
| ~ DOM:   | trees with small   |
|  | plants ( e.g. which  |
|  | will need more   |
|  | water and why?)  |
|  |  |
|  | Children to have a   |
|  | seedling and test  |
|  | in different   |
| - 100  | conditions e.g.  |
| 03   | dark, light, cold,   |
| 7 100  | warm, with   |
|  | fertiliser, without  |
|  | fertiliser, water,   |
| C-   | without water.   |
|  |  |
|  | and the second s |
|  |  |
|  |  |
|  | - 0  |
|  | The Contract of the Contract o |

|  | Working scientifically:           |
|--|-----------------------------------|
|  | Setting up simple                 |
|  | practical                         |
|  | enquires.                         |
|  | Record findings                   |
| (4)  | using simple                      |
| 197  | scientific                        |
|  | language.                         |
|  | P3 Investigate the                |
| 19 100   | way in which                      |
| - AUGUS 1000   | water is                          |
|  | transported                       |
| 0 //   | within plants.                    |
| C- // (100 or 100 or 10 | Carnations in                     |
|  | coloured water                    |
| 100  | investigation to see how water is |
|  | transported in                    |
| 142.00   | plants.                           |
| 100  | piants.                           |
| The state of the s | Working                           |
|  | scientifically: To                |
| S. W.  | make systematic                   |
|  | and careful                       |
| CALL TO SERVICE STATE OF THE PARTY OF THE PA | observations.                     |
|  |                                   |
|  | P4 Explore the                    |
|  | parts flowers play                |
|  | in the life cycle of              |
|  | flowering plants                  |
|  | including                         |
|  | pollination, seed                 |

|                  |  | formation and  |  |   |   |
|------------------|--|--|--|---|---|
|                  |  | seed dispersal.  |  |   |   |
|                  | - 1  | Look at seed   |  |   |   |
|                  |  | dispersion of a  |  |   |   |
|                  |  | Sunflower or   |  |   |   |
| 1.00             |  | dandelion e.g  | 1  |   |   |
| (2)              | And in case of   | through video  | 110  |   |   |
| 100              |  | clips.   |  |   |   |
| 100              |  | Discover how   |  |   |   |
| 100              |  | seeds are formed   |  |   |   |
| 10 00            |  | by observing the   |  |   |   |
| -                |  | stages of a plant  |  | The second second   |   |
| 7 /              |  | life cycle over a  |  |   |   |
| ~ B              |  | period of time.  | ARS I  | Price Contract  |   |
| 11000            |  | 25 111   | Charles C  | 5 8   |   |
|                  |  |  |  |   |   |
| - 17             |  |  |  |   |   |
| 1                |  | from plants.   |  | -   |   |
|                  |  | 17.7   |  |   |   |
| 1.00             |  |  | A PROPERTY OF  | Miggy   |   |
| 1000             |  |  |  | 7.3   |   |
| 25.              |  |  |  | April 1   |   |
| C 100            |  |  |  |   |   |
| 1                |  |  |  |   |   |
| 41               |  | _  |  |   |   |
| 23               | No. of the last  | dispersed.   | The same of the sa | 21  |   |
| Leaves, flowers. | Seeds, bulbs,  | Flowering plants.  |  |   |   |
|                  |  |  | the same of  |   |   |
|                  |  |  | 11-  |   |   |
|                  | ·  |  | . 7  |   |   |
|                  |  |  | Seattle Control  |   |   |
| stem.            | survival.  | 1110   |  |   |   |
|                  | Leaves, flowers,<br>blossom, petals,<br>fruit, roots, bulb,<br>seed, trunk,<br>branches and<br>stem. | blossom, petals, fruit, roots, bulb, seed, trunk, branches and temperature, mature plants, germination, growth and | seed dispersal. Look at seed dispersion of a Sunflower or dandelion e.g through video clips. Discover how seeds are formed by observing the stages of a plant life cycle over a period of time.  Children could dissect pollen from plants.  Children investigate different types of fruit seeds and consider how these might be dispersed.  Leaves, flowers, blossom, petals, fruit, roots, bulb, seed, trunk, branches and  seed dispersal.  Flowering plants, nutrients, air, pollination, seed formation, seed formation, seed dispersal, life   | seed dispersal. Look at seed dispersion of a Sunflower or dandelion e.g through video clips. Discover how seeds are formed by observing the stages of a plant life cycle over a period of time.  Children could dissect pollen from plants.  Children investigate different types of fruit seeds and consider how these might be dispersed.  Leaves, flowers, blossom, petals, fruit, roots, bulb, seed, trunk, pranches and  seed dispersal.  Look at seed dispersal.  Look at seed dispersal.  Look at seed dispersal.  Flowering plants, nutrients, air, pollination, seed formation, seed dispersal, life | seed dispersal. Look at seed dispersion of a Sunflower or dandelion e.g through video clips. Discover how seeds are formed by observing the stages of a plant life cycle over a period of time.  Children could dissect pollen from plants.  Children investigate different types of fruit seeds and consider how these might be dispersed.  Leaves, flowers, blossom, petals, fruit, roots, bullb, seed, trunk, branches and seed dispersal. Look at seed dispersol.  Children investigate different types of fruit seeds and consider how these might be dispersed. |

|           |                   |                    | cycle and          |
|-----------|-------------------|--------------------|--------------------|
|           | Deciduous trees   |                    | transported.       |
|           | Evergreen trees   |                    | MA.                |
| Key       | Examples of       | Seeds, cress,      | Seedlings          |
| Resources | plants (could be  | bulbs, cotton      | Carnations         |
|           | pictures)         | wool, trays, soil. | Map of discovery   |
|           | Discovery walk to |                    | walk               |
|           | study trees/      | Discovery walk     | Food colouring     |
|           | plants.           |                    | Seeds from fruits  |
|           | Labelled Map of   |                    | e.g. apples,       |
|           | Discovery walk.   |                    | tomatoes,          |
|           | Magnifying        |                    | sunflower seeds    |
|           | glasses.          |                    | etc.               |
|           | i-pad/ camera     |                    | Flowers to dissect |

