## Year 8 Objective List - Foundation

## Expressions, Equations and Sequences:

| Objective | Sparx Task |  |
| :---: | :---: | :---: |
| Simplify expressions by collecting like terms with positives coefficients | U105 |  |
| Simplify terms by collecting like terms with negative coefficients | U105 |  |
| Find the output of a two step function machine | M175 |  |
| Find the input of a function machine given the output | M175 |  |
| Multiply terms | M608 |  |
| Divide terms | M608 |  |
| Expand single brackets by an integer | M237 |  |
| Expand single brackets by an integer term | M237 |  |
| Do the same to both sides of any equation to maintain balance | M707 |  |
| Solve one step equations by balancing | M707 |  |
| Solve one step equations with fractions | M707 |  |
| Solve two step equations with positive, negative and fractional solutions | M509 |  |
| Write simple equations from area or perimeter of shapes | M957 |  |
| Continue number sequences by add, subtract multiply or divide | M381 |  |
| Describe the term rule and find missing values in sequences | M381 |  |
| Plot coordinates in all 4 quadrants | M618 |  |


| Generate coordinates from a number machine | M932 |  |
| :--- | :--- | :--- |
| Find the midpoint of a line segment | M622 |  |
| Recognise and describe an arithmetic sequence | M381 |  |
| Continue arithmetic sequences from patterns | M241 |  |
| Generate terms of a sequence using the position to <br> term rule | M991 |  |
| Find the nth term of simple sequences from diagrams | M991 |  |
| Describe the nth term of simple sequences e.g. 2n, <br> $5 n, 2 n+1$ | M991 |  |

