| arx Maths | Foundation Skills List |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Number |  |  |  |  |
| Topic | Topic code | R | A | G |
| Ordering positive integers | U600 |  |  |  |
| Ordering decimals | U435 |  |  |  |
| Ordering negative numbers | U947 |  |  |  |
| Adding and subtracting positive integers | U417 |  |  |  |
| Multiplying and dividing positive integers | U127, U453 |  |  |  |
| Adding and subtracting negative numbers | U742 |  |  |  |
| Multiplying and dividing negative numbers | U548 |  |  |  |
| Adding and subtracting decimals | U478 |  |  |  |
| Multiplying and dividing with place value | U735 |  |  |  |
| Multiplying and dividing with decimals | U293, U868 |  |  |  |
| Order of operations | U976 |  |  |  |
| Prime numbers, prime factorisation | U236, U739 |  |  |  |
| Factors, multiples, HCF and LCM | U211, U751, U529 |  |  |  |
| Powers and roots | U851 |  |  |  |
| Using standard form | U330, U534 |  |  |  |
| Calculating with standard form | U264, U290, U161 |  |  |  |
| Equivalent fractions and simplifying fractions | U704, U646 |  |  |  |
| Mixed numbers and improper fractions | U692 |  |  |  |
| Ordering fractions | U746 |  |  |  |
| Addition and subtraction of fractions | U736, U793 |  |  |  |
| Multiplication and division of fractions | U475, U544 |  |  |  |
| Converting and ordering fractions, decimals and percentages | U888, U594 |  |  |  |
| Fractions of amounts | U881, U916 |  |  |  |
| Percentages of amounts | U554, U349 |  |  |  |
| Percentage change | U773, U671 |  |  |  |
| Reverse percentages | U286, U278 |  |  |  |
| Simple interest | U533 |  |  |  |
| Rounding | U480, U298 |  |  |  |
| Rounding to significant figures | U731, U965 |  |  |  |
| Estimating answers | U225 |  |  |  |
| Value for money | M681 |  |  |  |

Sparx Maths
Foundation Skills List
Algebra

| Topic | Topic code | R | A | G |
| :--- | :---: | :---: | :---: | :---: |
| Algebraic expressions | U613 |  |  |  |
| Collecting like terms | U105 |  |  |  |
| Substitution | U201, U585, U144 |  |  |  |
| Expanding brackets | U179, U768 |  |  |  |
| Factorising expressions | U365 |  |  |  |
| Index laws | U235, U694, U662, U103 |  |  |  |
| Changing the subject | U556 |  |  |  |
| Coordinates | U789, U889 |  |  |  |
| Midpoints | U933 |  |  |  |
| Plotting straight line graphs | U741 |  |  |  |
| Equations of straight line graphs | U315, U669 |  |  |  |
| Parallel lines | U377 |  |  |  |
| Distance-time graphs | U403, U914, U462, U966 |  |  |  |
| Quadratic graphs | U755, U325, U6670, U505, |  |  |  |
| Linear equations | U599 |  |  |  |
| Quadratic expressions and equations | U178, U228 |  |  |  |
| Linear sequences | U213, U530, U498, U978 |  |  |  |
| Other sequences | U958, U680 |  |  |  |

## Ratio and proportion

| Topic | Topic code | R | A | G |
| :--- | :---: | :---: | :---: | :---: |
| Simplifying ratios | U687 |  |  |  |
| Sharing amounts in a ratio | U753, U577 |  |  |  |
| Converting between ratios, fractions and <br> percentages | U176 |  |  |  |
| Direct proportion | U721, U640 |  |  |  |
| Inverse proportion | U357, U364 |  |  |  |
| Proportion graphs | U238 |  |  |  |
| Units of measure: Length, Mass and Capacity | U102, U388 |  |  |  |
| Units of measure: Time | U902 |  |  |  |
| Units of measure: Area | U248 |  |  |  |
| Currency conversion | U610 |  |  |  |
| Conversion graphs | U652, U638, U862 |  |  |  |
| Compound units: Speed | U151 |  |  |  |

Sparx Maths

## Geometry

| Topic | Topic code | R | A | G |
| :--- | :---: | :---: | :---: | :--- |
| Properties of 2D shapes | U121, U849 |  |  |  |
| Properties of 3D shapes | U719 |  |  |  |
| Nets of 3D shapes | U761 |  |  |  |
| Angles: Measuring, Drawing and Estimating | U447 |  |  |  |
| Angle on a line and about a point | U390 |  |  |  |
| Vertically opposite angles | U730 |  |  |  |
| Angles on parallel lines | U826 |  |  |  |
| Angles in a triangle | U628 |  |  |  |
| Combining angle facts | U655 |  |  |  |
| Angles in a quadrilateral | U732, U329 |  |  |  |
| Angles in polygons | U427 |  |  |  |
| Bearings | U525, U107 |  |  |  |
| Translations | U799 |  |  |  |
| Reflections | U519 |  |  |  |
| Enlargements | U696 |  |  |  |
| Rotations | U790, U866 |  |  |  |
| Congruence | U993, U970, U351, U226 |  |  |  |
| Area and perimeter of simple shapes | U945, U575, U424, U265, |  |  |  |
| Area of triangles, parallelograms and |  |  |  |  |
| trapeziums | U343 |  |  |  |
| Circles | U767 |  |  |  |
| Circumference | U604, U221 |  |  |  |
| Circle area | U950, U373 |  |  |  |
| Surface area | U929, U259, U871 |  |  |  |
| Volume of cuboids | U786 |  |  |  |
| Volume of prisms and cylinders | U174, U915 |  |  |  |
| Similar shapes | U551, U578 |  |  |  |
| Scale diagrams | U257 |  |  |  |

Sparx Maths
Probability

| Topic | Topic code | R | A | G |
| :--- | :---: | :---: | :---: | :---: |
| Probability scale | U803 |  |  |  |
| Probability of single events | U408, U510, U683 |  |  |  |
| Experimental probability | U580 |  |  |  |
| Expected outcomes | U166 |  |  |  |
| Listing elements in a set | U748, U296 |  |  |  |
| Probability from Venn diagrams | U476 |  |  |  |
| Frequency trees | U280 |  |  |  |
| Sample space diagrams | U104 |  |  |  |
| Tree diagrams | U558, U729 |  |  |  |

## Statistics

| Topic | Topic code | R | A | G |
| :--- | :---: | :---: | :---: | :---: |
| Collecting data, frequency tables | U322, U120 |  |  |  |
| Two-way tables | U981 |  |  |  |
| Bar charts | U363, U557 |  |  |  |
| Pictograms | U506 |  |  |  |
| Pie charts | U508, U172 |  |  |  |
| Stem and leaf diagrams | U200, U909 |  |  |  |
| Mode | U260 |  |  |  |
| Mean | U291 |  |  |  |
| Median | U456 |  |  |  |
| Range | U526 |  |  |  |
| Choosing averages | U717 |  |  |  |
| Scatter graphs | U199, U277, U128 |  |  |  |

