## IGCSE Mathematics Module 6

## Graphs

By the end of this unit we will have covered the following areas.

| Objective |  | ñ 0 U |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Demonstrate familiarity with Cartesian coordinates in two dimensions |  |  |  |  |
| Calculate gradient, length and midpoint of a line segment given two points | 19 |  | 213-214 |  |
| Obtain the equation of a straight line graph in the form $y=m x+c$ | 19 |  | 215-216 |  |
| Determine the equation of parallel lines | 19 |  |  |  |
| Construct tables of values and draw graphs for different functions of the form $y=a x^{n}$ (quadratics, cubics and reciprocals) where $n=-2,-1,0,1,2,3$ and $y=a^{x}$ | 18 |  | $\begin{aligned} & \text { 211-213 } \\ & 217-224 \end{aligned}$ |  |
| Estimate gradients of curves by drawing tangents | 18 |  | 218-221 |  |
| Interpret and use graphs in practical situations in conversion graphs | 17 |  | 224-225 |  |
| Solve equations using graphical methods | 18 |  | 225-229 |  |
| Interpret and use travel graphs | 17 |  | 229-235 |  |
| Calculate speed, acceleration, deceleration and distance traveled from distance and speed-time graphs | 17 |  | 229-235 |  |
| Represent inequalities graphically and use this in the solution of simple linear programming problems | 25 |  | 172-177 |  |

## Vocabulary:

