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| **Core Knowledge Map** |
| Subject: **Mathematics** | Year: 10 | Term: Summer 1 |
| What are we learning? |
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|  **Unit 10: Non-Linear graphs** | **Sparx IL Codes** | Sad face outline with solid fill | Nervous face outline with solid fill | Smiling face outline with solid fill |
| Recognise a linear, quadratic, cubic, reciprocal, exponential and circle graph from its shape | U980,U593,U229 |  |  |  |
| Recognise graphs representing direct and inverse proportion |  |  |  |  |
| Plot non-linear graphs from a table of values | U989 |  |  |  |
| Find approximate solutions of a quadratic equation from the graph of its function | U601U875 |  |  |  |
| Sketch a quadratic graph to include turning point and x-intercepts | U769 |  |  |  |
| Using one graph to solve another | U875 |  |  |  |

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| How will I be assessed  |
| Retrieval Tasks, Exit tickets, end of half-term test. |
| Big questions: |
| Can you….? |
| How does this build on previous learning? | How will this link to my future learning? |
| * Plotting and sketching straight line graphs.
* Write a quadratic expression in complete the square form
* Solving a quadratic equation to find the roots of the function.
* Using the table function on the calculator efficiently to generate a table of values.
 | * Transformation of graphs
* Solving linear and non-linear simultaneous equations both algebraically and graphically
* GCSE synoptic and multi-step problem solving questions.
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| Core knowledge: | Key vocabulary: |
|  | QuadraticCubicExponentialReciprocalDirect proportionInverse proportion |
| Need more help? Use the Sparx Independent Learning Codes above |