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| **Core Knowledge Map** | | | |
| Subject: Functions | Year: 11 | | Term: 1 |
| What are we learning? | | | |
| |  |  | | --- | --- | | Unit Objective | Sparx IL Code | | Function Notation (substituting into functions) | P116 | | Domain and Range | P934 | | Composite Functions | P408 | | Inverse Functions | P442 | | Sketching quadratics and exponentials | P241, P607 | | Significant points on a graph | P557 | | | | |
| How will I be assessed | | | |
| Topic test at the end of the unit. | | | |
| Big questions: | | | |
| Given that f(x) = x3 + 7 and g(x) = x – 4, Work out f(3), gf(x) and g-1(x).  What is the domain and range of f(x)?  A function f(x) is defined as  Draw the graph of on the axes below.  f(x) = − x −4 ≤ x < 0  = x2 0 ≤ x < 2  = 10 − 3x 2 ≤ x ≤ 4 | | | |
| How does this build on previous learning? | | How will this link to my future learning? | |
| Substituting numbers into expressions.  Changing the subject.  Sketching and drawing graphs.  Simplifying expressions. | | This is covered in A level Maths where you will look at more complicated functions and graphs.  Using notation in differentiation and factor theorem. | |
| Core knowledge: | | Key vocabulary: | |
| * define the domain of a function. * work out the range of a function. * express a domain in a variety of forms, for example *x* > 2, for all *x* except *x* = 0, for all real values. * express a range in a variety of forms, for example f(*x*) ≤ 0, for all f(*x*) except f(*x*) = 1. * understand, interpret, and use composite function fg(x). * understand, interpret and use inverse function f -1(x. * draw or sketch graphs of linear, quadratic, and exponential functions with up to 3 domains. * label points of intersection of graphs with the axes. * understand that graphs should only be drawn within the given domain. * identify any symmetries on a quadratic graph and from this. * Determine the coordinates of the turning point. | | * Domain * Range * Composite * Function * Inverse * Quadratic * Significant point * Graphs | |
| Need more help? Use the Sparx Independent Learning codes. | | | |