**11 Maths Methods – Circular Functions (Work Plan) 2020**

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| **Skill** | **Practice** | **Resources** | **Learning Focus** | **Success Criteria** |
| Angles in degrees and radian  Define : Sine, Cosine, Tangent  Symmetry properties | **Ex 14A Page 486**  1-7 parts a, c, e  **Ex 14B Page 488**  1-3 parts a, c, e  **Ex 14C Page 489**  1 a c e, 2a c e  **Ex 14E Page 492**  1 a b f, 2, 3 a b e, 5, 6 a c e g h | <https://www.youtube.com/watch?v=wcfkDuFpbiM>  <https://www.youtube.com/watch?v=IREakTy50J4>  <https://www.youtube.com/watch?v=25NuDwXAja0>  <https://www.youtube.com/watch?v=I-36SsQ9KgQ>  <https://www.youtube.com/watch?v=Ribl5-_C0OQ>  <https://www.youtube.com/watch?v=aRHRueLVkLE> | Understand the Radian measure of angles  Know the relationship between Degrees and Radian  Be able to convert from Degrees to Radian and vice versa  Understand how sine, cosine are defined in relation to the unit circle  Understand the quadrants of the Cartesian plane in relation to the unit circle  Know the symmetry properties of both positive and negative angles in the quadrants  Know the relationship between angles in the first quadrant (reference angle) and the other quadrants  Be able to use the reference angle to find trigonometric values in all quadrants | Correctly convert from Degrees to Radian and vice versa  Correctly find sine, cosine values  Correctly use the reference angle to find trigonometric values in all quadrants |
| Exact Values | **Ex 14F Page 495**  All Questions | <https://www.youtube.com/watch?v=qTbDQ9gkKJg> | Understand what an exact values  Know that for some angles there are exact values for the trigonometric values  Be able to use exact values | Correctly use exact values |
| Trig Equations | **Ex 14H Page 507**  1 a c, 2 a b d f, 3 a c e, 4 a c, 5 a b, 7 a b d | <https://www.youtube.com/watch?v=IWeuFrtwXkY> | Be able to solve equations of the form and over a given domain  Know how to solve by hand and using the calculator | Correctly solve equations of the form and  Give the correct number of solutions for the given domain  Correctly use the calculator  Give the solution in the correct units - degree or radian |

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| Graphs of Sin, Cos | **Ex 14G Page 502**  1 – 3 parts a c e, 4, 5 a c, 7 a c e | <https://www.youtube.com/watch?v=u4RcBdMNyCQ>  <https://www.youtube.com/watch?v=OjHgoZOdRKM> | Recognise the graphs of and  Know the features of sin and cos graphs  Be able to determine the features of sin and cos graphs  Be able to determine the transformations for graphs of the form and | Correctly determine the features of sin and cos graphs  Correctly sketch sin and cos graphs |
| Transformations | **Ex 14I Page 509**  1 a e f, 2, 4, 5 a c  **Ex 14J Page 512**  1 a c, 2 a b | <https://www.youtube.com/watch?v=ijTIr-aykUk>  <https://www.youtube.com/watch?v=CuvO9-Zk2Xc>  <https://www.youtube.com/watch?v=80c_F0-7ZxE>  <https://www.youtube.com/watch?v=BQ4QzTcG90g> | Be able to determine the transformations for graphs of the form and  Be able to sketch the graphs of the form and | Correctly sketch the graphs of the form and  Over a suitable or specified domain |
| Revision | **Page 529 🡪**  **TF -** Q1-6 every 2nd part  **MC** – Q2-6 |  |  |  |