 Trigonometric ratios

| Content | Teaching strategies and activities | Resources |
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|  | Trigonometry review  <http://www.mathsisfun.com/algebra/trigonometry.html>  The unit circle  <http://www.mathsisfun.com/geometry/unit-circle.html> |  |
| Exact ratios for 0, 30, 45, 60, 90 degrees. | Exact ratios- Woo tube  <https://www.youtube.com/watch?v=wzHorwUAe7w>  Exact Ratios  <http://www.mathsisfun.com/geometry/unit-circle.html> | Exact Values for 30 and 60 Degrees  <https://www.youtube.com/watch?v=73eNYjKlTd8>  Exact Values for 45 Degrees  <https://www.youtube.com/watch?v=lBEXdR4WwEk> |
| Curve Sketching. | Desmos Exercises  <https://docs.google.com/document/d/1vPZorWAdCRvlCPzAuVNgnM4I2Iz7IEws0hil04dwddw/edit>  Desmos/6 Trig Graphs by Quadrant  [https://www.desmos.com/calculator/fgwqouziu2](https://www.desmos.com/calculator/q02tsdydbv) |  |
| Sine rule: the ambiguous case (obtuse angles). |  | Mathematics Online Sine Rule  <https://www.youtube.com/watch?v=3jBMymLI8ls>  Sine Rule (Finding a Length)  <https://www.youtube.com/watch?v=RL2F49BwQTA>  Sine Rule (Finding an Angle)  <https://www.youtube.com/watch?v=l1iUXL4fcjs> |
| Cosine rule. | The Sine and Cosine Song  <https://www.youtube.com/watch?v=-BIfuehcXAE&feature=youtu.be> | Cosine Rule (Finding a Length)  <https://www.youtube.com/watch?v=g83T16WK68k>  Cosine Rule (Finding an Angle)  <https://www.youtube.com/watch?v=ozcnr76kXio> |
| Sine area rule. |  | Area of a Triangle  <https://www.youtube.com/watch?v=48Ze5Lc7vNo> |
| Unit circle concepts. | Unit Circle and Graphs Demonstration  <http://www.geogebra.org/m/1525>  Unit Circle Exercises  <http://tlf.dlr.det.nsw.edu.au/learningobjects/Content/L9180/object/index.html> | Khan Academy Introduction to the Unit Circle <https://www.youtube.com/watch?v=1m9p9iubMLU> |
| Solving equations in form 3sin2x = 1 -360°≤x≤360°. |  |  |
| Pythagorean trig identities. | Geogebra demonstration  <http://tube.geogebra.org/material/simple/id/736669> |  |
| Proving trig identities. | Learning Trig Identities  <http://www.mathsisfun.com/algebra/trigonometric-identities.html>  Remembering Trig identities <http://www.mathsisfun.com/algebra/trig-magic-hexagon.html> |  |
| Resources |  | Trig Cheat Sheet  <http://tutorial.math.lamar.edu/pdf/Trig_Cheat_Sheet.pdf> |
|  |  | Bearings versus the Unit Circle (MANSW)  <https://drive.google.com/a/education.nsw.gov.au/file/d/0B9hzfac53d3tbVlkOGF6d0FDZE0/view?usp=sharing> |
|  |  | Why study trigonometry?  <http://www.clarku.edu/~djoyce/trig/apps.html> |
|  |  | Desmos for demonstrating Trigonometric functions  <https://www.desmos.com/calculator> |
|  |  | 2u Resources for Trigonometry (including a revision booklet) <http://mathslinks.net/faculty/2u-trigonometry-notes> |
|  |  | Revision Checklist  <http://mathslinks.net/faculty/revision-checklist-for-nsw-stage-6-mathematics-2-unit> |