## شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية

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## الخطة الفصلية المسار العام - ريفيل



## التواصل الاجتماعي بحسب الصف التاسع العام




## روابط مواد الصف التاسع العام على تلغرام

| التربية الاسلامية | اللغة العربية | اللغة الانجليزية | الرياضيات |
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## المزيد من الملفات بحسب الصف التاسع العام والمادة رياضيات في الفصل الثالث

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| 1 | حل أسئلة الامتحان النهائي الالكتروني ريفيل |
| 2 | حل أسئلة الامتحان النهائي الورقي بريدج |
| 3 | أسئلة الامتحان النهائي الالكتروني بريدج |
| 4 | أسئلة الامتحان النهائي الورقي بريدج |
| 5 | حل أسئلة الامتحان النهائي |

UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

الإمارات العربية المتحدة
وزارة التربية والتعليم

# Grade 9 General Stream Mathematics (Reveal)
# Scheme of Work, Term 3, Academic Year 2022-2023

**Purpose**

- to define the **required** General Stream Mathematics Student Learning Outcomes to be covered during the term for this grade
- to **recommend** the pace at which the Student Learning Outcomes are to be covered. The term's content is broken down into eight teaching weeks, allowing the coverage of topics within each week to be flexible.

**Assessment**

- Assessment details for Term 3 will be communicated separately.

Teachers should incorporate the Standards for Mathematical Practice (SMPs) in their instruction when and where appropriate. The Standards for Mathematical Practice are

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

**Why are the Standards for Mathematical Practice important?**
The Standards for Mathematical Practice set expectations for using mathematical language and representations to reason, solve problems, and model in preparation for careers and a wide range of college majors.

| Week 1: April 17 – 21, 2023 (Ramadan ends ~April 20; Eid al-Fitr ~April 20 – 23) | | |
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| **Integrated I Module 12 – Logical Arguments and Line Relationships** | | |
| **Lessons** | **Student Learning Outcomes** | **Common Core State Standards** |
| M12L5 – Proving Segment Relationships | • Prove theorems about line segments by using the Segment Addition Postulate.<br>• Prove theorems about line segments by using properties of segment congruence. | **G.CO.9** Prove theorems about lines and angles.<br>**G.CO.12** Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). |

| Week 2: April 24 – 28, 2023 | | |
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| **Lessons** | **Student Learning Outcomes** | **Common Core State Standards** |
| M12L6 – Proving Angle Relationships | • Prove theorems about angles by using the Angle Addition Postulate.<br>• Prove theorems about angles by using properties and theorems of angle congruence.<br>• Prove theorems about right angles. | **G.CO.9** Prove theorems about lines and angles. |
| M12L7 – Parallel Lines and Transversals | • Identify special angle pairs, parallel and skew lines, and transversals.<br>• Find values by applying theorems about parallel lines and transversals. | **G.CO.1** Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.<br>**G.CO.9** Prove theorems about lines and angles. |
| M12L8 – Slope and Equations of Lines | • Classify lines as parallel, perpendicular, or neither by comparing the slopes of the lines.<br>• Classify lines as parallel, perpendicular, or neither by comparing the equations of the lines. | **G.GPE.5** Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point). |

| Week 3: May 1 – 5, 2023 | | |
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| **Lessons** | **Student Learning Outcomes** | **Common Core State Standards** |
| M12L9 – Proving Lines Parallel | • Apply angle relationship theorems to identify parallel lines and find missing values. | **G.CO.9** Prove theorems about lines and angles.<br>**G.CO.12** Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). |
| M12L10 – Perpendiculars and Distance | • Use perpendicular lines to find the distance between a point and a line.<br>• Find the distance between parallel lines by using perpendicular distance. | **G.CO.12** Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.).<br>**G.MG.3** Apply geometric methods to solve problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios). |

| Week 4: May 8 – 12, 2023 | | |
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| **Integrated I Module 13 – Transformations and Symmetry** | | |
| **Lessons** | **Student Learning Outcomes** | **Common Core State Standards** |
| M13L1 – Reflections | • Use rigid motions to reflect figures on the coordinate plane and describe the effects of the reflections. | **G.CO.4** Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.<br>**G.CO.5** Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.<br>**G.CO.6** Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent. |
| M13L2 – Translations | • Determine the translation vector. | |

| Week 5: May 15 – 19, 2023 | | |
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| **Lessons** | **Student Learning Outcomes** | **Common Core State Standards** |
| M13L3 – Rotations | • Use rigid motions to rotate figures about points that are not the origin and describe the effects of the rotations. | **G.CO.4** Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.<br>**G.CO.5** Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.<br>**G.CO.6** Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent. |
| M13L6 – Symmetry | • Use symmetry to describe the reflections that carry a figure onto itself.<br>• Use rotational symmetry to describe the rotations that carry a figure onto itself. | **G.CO.3** Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.<br>**G.CO.5** Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another. |

| Week 6: May 22 – 26, 2023 | | |
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| **Integrated I Module 14 – Triangles and Congruence** | | |
| **Lessons** | **Student Learning Outcomes** | **Common Core State Standards** |
| M14L1 – Angles of Triangles | • Prove the Triangle Angle-Sum Theorem and apply the theorem to solve problems.<br>• Prove the Exterior Angle Theorem and apply the theorem to solve problems.<br>• Prove the corollaries to the Triangle Angle-Sum Theorem and apply the corollaries to solve problems. | **G.CO.10** Prove theorems about triangles. |
| M14L2 – Congruent Triangles | • Use congruence criterion of corresponding congruent parts of triangles to solve problems.<br>• Use the Third Angles Theorem and the properties of triangle congruence to solve problems and to prove relationships in geometric figures. | **G.CO.7** Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.<br>**G.SRT.5** Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. |

| Week 7: May 29 – June 2, 2023 | | |
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| **Lessons** | **Student Learning Outcomes** | **Common Core State Standards** |
| M14L3 – Proving Triangles Congruent – SSS, SAS | • Use the SSS congruence criterion for triangles to solve problems and prove relationships in geometric figures.<br>• Use the SAS congruence criterion for triangles to solve problems and prove relationships in geometric figures. | **G.CO.8** Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.<br>**G.CO.10** Prove theorems about triangles.<br>**G.SRT.5** Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. |
| M14L4 – Proving Triangles Congruent – ASA, AAS | • Use the ASA congruence criterion for triangles to solve problems and prove relationships in geometric figures.<br>• Use the AAS congruence criterion for triangles to prove relationships in geometric figures. | |
| M14L5 – Proving Right Triangles Congruent | • Use the right triangle congruence theorems to prove relationships in geometric figures. | |

| Week 8: June 5 – 9, 2023 | | |
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| **Lessons** | **Student Learning Outcomes** | **Common Core State Standards** |
| M14L6 – Isosceles and Equilateral Triangles | • Solve problems involving isosceles triangles.<br>• Solve problems involving equilateral triangles. | **G.CO.10** Prove theorems about triangles.<br>**G.SRT.5** Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. |

| Week 9: June 12 – 16, 2023<br>Week 10: June 19 – 23, 2023<br>Week 11: June 26 – 30, 2023 |
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| **Term 3 Revision and End-of-Term Exam**<br>**Exam date to be determined by the Assessment Directorate** |