 **Name of teacher: Mr. Saad Idrees**

**Grade: MYP3 2020-2021**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Unit Title** | **Key concept** | **Related concept(s)** | **Global context** | **Statement of inquiry** | **MYP objectives** | **ATL skills** | **Content**  **(topics, knowledge, skills)** |
| **Number**  **One** | Form | Measurement, Justification | **Identity and relationships** | Firstly, humans observed phenomena and relationships. Then they measured quantities. Soon they could create general rules and formulae which could be justified. All these ways of knowing come together to give us our mathematical body of knowledge. | **Criterion A:** Knowing and understanding  **Criterion B:** Investigating patterns  **Criterion C:** Communicating  **Criterion D:** Applying mathematics in real-life contexts | Creative-thinking skills  Critical-thinking skills  Information literacy skills  Communication skills | * Divisibility rules * Prime and composite numbers, multiples, factors and prime factors * Divisability rules * GCF and LCM * Operations with integers * Classifying real numbers * Operations with rational numbers * Algebraic products and quotients * in index notation * Index laws * Zero and negative indices * Scientific notation (Standard form) * Significant figures |
| **Unit Title** | **Key concept** | **Related concept(s)** | **Global context** | **Statement of inquiry** | **MYP objectives** | **ATL skills** | **Content**  **(topics, knowledge, skills)** |
| **Solving equations**  **Two** | Form | Measurement, Justification | **Identity and relationships** | **Logical reasoning skills are needed to represent complex information in a simplified way.** | **Criterion A:** Knowing and understanding  **Criterion B:** Investigating patterns  **Criterion C:** Communicating  **Criterion D:** Applying mathematics in real-life contexts | Creative-thinking skills  Critical-thinking skills  Information literacy skills  Communication skills | * The solution of an equation * Maintaining balance * Formal solution of linear equations * Equations with repeated unknowns * Fractional equations * Unknown in the denominator * Plotting points * Linear relationships * Plotting linear graphs * The equation of a line * Gradient or slope * Graphing lines from equations * Other line forms * Finding equations from graphs * Points on lines |
| **Unit Title** | **Key concept** | **Related concept(s)** | **Global context** | **Statement of inquiry** | **MYP objectives** | **ATL skills** | **Content**  **(topics, knowledge, skills)** |
| **Solving system of linear Equations Three** | Form | Measurement, Justification | **Identity and relationships** | **Modeling the relationship between different qualities and quantities can prompt an opportunity for changes.** | **Criterion A:** Knowing and understanding  **Criterion B:** Investigating patterns  **Criterion C:** Communicating  **Criterion D:** Applying mathematics in real-life contexts | Creative-thinking skills  Critical-thinking skills  Information literacy skills  Communication skills | * Solving systems of equations by graphing * Solving simultaneous equations using elimination * Solving simultaneous equations using substitution * Solving systems of equations – word problems |
| **Unit Title** | **Key concept** | **Related concept(s)** | **Global context** | **Statement of inquiry** | **MYP objectives** | **ATL skills** | **Content**  **(topics, knowledge, skills)** |
| **Probability Four** | **Relation ships** | **Generalization, patterns** | **Personal and Cultural expression.** | **Patterns found in relationships can be generalized to help us make predictions for personal gain.** | **Criterion A:** Knowing and understanding  **Criterion B:** Investigating patterns  **Criterion C:** Communicating  **Criterion D:** Applying mathematics in real-life contexts | Creative-thinking skills  Critical-thinking skills  Information literacy skills  Communication skills  **.** | * Sample space * Theoretical probability * Using grids to find probabilities * Multiplying probabilities * Using tree diagrams * Expectation * Grouped discrete data * Measuring the center * Factorials * Permutations * Counting principle * Combination and permutation |
| **Unit Title** | **Key concept** | **Related concept(s)** | **Global context** | **Statement of inquiry** | **MYP objectives** | **ATL skills** | **Content**  **(topics, knowledge, skills)** |
| **Radicals and**  **PythagorasFive** | **Form** | **Patterns**  **Space** | **Personal and cultural expression** | **Patterns, in different forms, are tied to your emotional experiences.** | **Criterion A:** Knowing and understanding  **Criterion B:** Investigating patterns  **Criterion C:** Communicating  **Criterion D:** Applying mathematics in real-life contexts | Creative-thinking skills  Critical-thinking skills  Information literacy skills  Communication skills  **.** | * Square roots * Rules for square roots * Solving equations of the form * x2 = k * The theorem of Pythagoras * The converse of Pythagoras’   Theorem   * Pythagorean triples * G Problem solving using Pythagoras |
| **Unit Title** | **Key concept** | **Related concept(s)** | **Global context** | **Statement of inquiry** | **MYP objectives** | **ATL skills** | **Content**  **(topics, knowledge, skills)** |
| Trigonometry **Six** | Form | Measurement and Models | **Identity and relationships** | There is an accurate relationship between the measurement of a drawing or model and the measurements of the real object. | **Criterion A:** Knowing and understanding  **Criterion B:** Investigating patterns  **Criterion C:** Communicating  **Criterion D:** Applying mathematics in real-life contexts | **Social**  **Collaboration skills: Help others to succeed**  **Thinking**  **Transfer skills: Apply skills and knowledge in unfamiliar situations**. | * Using scale diagrams in geometry * Trigonometry * The trigonometric ratios * Problem solving with trigonometry |