SCIENCES (PHYSICS) MYP TERM 2 YEAR 9

TOPICS	OBJECTIVES	AREAS OF INTERACTION	ASSESSMENT CRITERIA
Topic : **Speed** **Key Questions** 1. How can speed be determined? 2.What are the units in which speed is measured? 3. Can a force produces a change in speed (an acceleration). 4.Know that in the absence of force, objects move at a steady speed, or remain stationary. 5.Know that objects can continue at steady speeds with no force acting in the direction of movement 6.Know that air resistance and water resistance are forces that oppose motion 7.How the effects of air resistance and water resistance can be reduced by streamlining. 8.Know that air and water resistance increase with increasing speed. 9. Know that the energy required to keep a moving object moving depends on air resistance. 10.Know that when the upward force of air resistance balances the downward force of weight, the speed remains constant.	**A) One world** Know how speed affects our world. Know the effect of speeding in traffic. How vehicles are designed for speed. **B) Communication in Science** Know terminology and meanings of key words. Be able to interpret data tables using correct terminology. **C) Knowledge and Understanding** Apply the formula and do calculations of speed. Apply concepts of force in different situations. Recognise types of motion. Recognise effects of forces. **D) Scientific inquiry** Write reports of experiments done. Making measurements. Using scientific method to choose variables. Use correct way of writing a report. **E) Processing Data** Recording data correctly recording data in tables with correct headings. Drawing graphs of data. **F) Attitudes in Science** Doing experiments safely Paying attention to detail and Recording accurately Correct use of apparatus.	**APPROACHES TO LEARNING** Write reports. Draw tables. Work neatly in copy book Bring all necessary equipment to class. Be prepared for every lesson. **HUMAN INGENUITY** How man has developed the vehicles we use today. How cars and vehicles are designed for effective travelling.	**MYP Languages Assessment Criteria** **A)One world /6** **B)Communication in science /6** **C)Knowledge and** **D)Understanding /6** **E)Scientific Inquiry /6** **F)Processing Data /6** **G)Attitudes in Science /6** **Each is worth 6 marks (total 36)** In this unit Criteria C will be formally assessed End of unit test (C) **March**

SCIENCES (CHEMISTRY) MYP TERM 2 YEAR 9

TOPICS	OBJECTIVES	AREAS OF INTERACTION	ASSESSMENT CRITERIA
Topic : **Patterns Of Reactivity And Environmental** **Key Questions** Why do some metals tarnish? Which metals react with water? What are the most reactive metals? How does temperature affect the reactivity of metals? When is a reactive metal not reactive? Is the order of metal reactivity the same with acids? How can we make predictions about reactivity? How can we use the Reactivity Series to make predictions? How does the R.S. help us choose the right metal? How can soils be different? How do rocks and building materials change over time? What is acid rain? What problems are caused by acid rain?	**D) Scientific inquiry** Formulate a hypothesis by using logical reasoning. Design an investigation and suggest data to be collected. Comment on the accuracy and suggest improvements. **E) Processing Data** collect and record data Organize data into different forms e.g tables , graphs and charts analyse and interpret the data. **F) Attitudes in Science** Do investigations skilfully and safely. Work effectively as a team. Show respect for self and others.	**APPROACHES TO LEARNING** Students will do reading work on this topic. Students will use interactive white board material for learning and revision. Explaining and using experiments to consolidate new knowledge. Using worksheets and home work for reading and understanding class work. Group discussions on this topic will help learning. Organise copy book **ENVIRONMENTS** Investigate different soil samples. Explore ways for preventing acid rain. Evaluate how acid rain affects soil.	**MYP Languages Assessment Criteria** **A)One world /6** **B)Communication in science /6** **C)Knowledge and** **D)Understanding /6** **E)Scientific Inquiry /6** **F)Processing Data /6** **G)Attitudes in Science /6** **Each is worth 6 marks (total 36)** **D) Scientific inquiry** formulate a hypothesis about combating acid rain. Comment on the accuracy of the hypothesis **E) Processing Data** Processing Data of Practical in reports for evaluation Practical reports to be asssessed after each experiment **F) Attitudes in Science** Be able to know about different ways of presenting data Draw conclusions from data gathered **FORMAL ASSESSMENT ACTIVITIES** Criteria D,E,F practical investigation about acids soils.

SCIENCES (BIOLOGY) MYP TERM 2 YEAR 9

TOPICS	OBJECTIVES	AREAS OF INTERACTION	ASSESSMENT CRITERIA
Topic : Photosynthesis **Key Questions** What is photosynthesis? What happens to oxygen made by photosynthesis? How are leaves adapted to their function? How is glucose used by plants? What are plant adaptations for dry conditions? Why do plants need roots? How could the atmosphere change? Why are plants important for humans as food? How do farmers provide good growing conditions for their crops? How do pests affect the growing of crops? What are the problems of using pesticides? What is biological control? What is the best environment for growing plants? How can the growth of crop plants be speeded up?	**A) One world** Describe and explain ways in which science is applied. Explain how science and technology depend on one another. Understand that science is part of the world we live in and how it affects our lives. **B) Communication in Science** Understand and use scientific language. Provide scientific information using different ways of communication. Demonstrate honesty with all data and information.	**APPROACHES TO LEARNING** Students will do reading work on this topic, Students will use interactive white board material for learning and revision. Explaining and using experiments to consolidate new knowledge. Using worksheets and home work for reading and understanding class work. Group discussions on this topic will help learning. Organise copy book. **ENVIRONMENTS** Students will investigate different foodstuffs, they will explore different ways of producing food They will evaluate their investigations and have reasonable conclusions formatted. **HEALTH & SOCIAL** How to look after myself. Design a program for healthy life style. Suggest changes to make for person with unhealthy life style. Understand dangers involved in substance abuse.	**MYP Languages Assessment Criteria** **A)One world /6** **B)Communication in science /6** **C)Knowledge and** **D)Understanding /6** **E)Scientific Inquiry /6** **F)Processing Data /6** **G)Attitudes in Science /6** **Each is worth 6 marks (total 36)** **A) One world** Worksheets to be given for class and homework Independent research on a topic of choice health relate issue resulting in an essay. Practical evaluation. **B) Communication in Science** Draw up a poster of how food is prepared for a space journey. Collect articles from the media about space travel and foods. Present findings foe poster to class. **C) Knowledge and Understanding** By Understanding of textbook learning material Using worksheets to help understand the topic. **D) Scientific inquiry** Formulate an hypothesis about growing plants on other planets Comment on the accuracy of the hypothesis **E) Processing Data** Processing Data of Practical in reports for evaluation Practical reports to be assessed after each experiment. **F) Attitudes in Science** Be able to know about different ways of presenting data. Draw conclusions from data gathered.