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Grade 12 Unit 5 Description  
Term 3 2018

English (non AP)

Students will be developing their responses to Shakespeare's 'Macbeth' by branching into persuasive speech writing.

Math

Business Math- Unit 6: Accounting

In this unit students will be introduced to new terms such as Depreciation, Bonds. Students will be looking at how business calculate the depreciation of the different costs of assets as the number of years pass by. Looking at financial statements, students will be able to analyse such statement and understand the importance of it.

Calculus

Students will continue their study of Integration by combining two major branches of calculus: differential calculus (introduced with the tangent line problem) and integral calculus (introduced with the area problem). They will study this connection discovered independently by Isaac Newton and Gottfried Leibniz through the Fundamental Theorem of Calculus. Students will then extend their integration skills through integration by substitution, and finally apply their integration skills to calculate the area between two curves.

AP Calculus

Unit 6: Differential Equations

In this unit students will solve differential equations that are among the most powerful tools we have for analyzing the world mathematically. they will use the differential equations to formulate the fundamental laws of nature and to model the most diverse physical phenomena.

Arabic

الوحدة السادسة:

تشتمل الوحدة السادسة على مجموعة من الدروس التي تعمل على تطوير المهارات اللغوية للمتعلمة، وهي دروس من الشعر الحديث، ورواية الأمير الصغير، وبعض النصوص المعلوماتية مثل نص الموسيقى في العلم، ودروس مهارة الاستماع مثل وسائل التواصل الاجتماعية، أما التحدث الذي تلتزم فيه المتعلمة اللغة العربية الفصيحة السليمة، فستعمل المتعلمة على تقديم عروض عن موضوعات ورد ذكرها في درس "الموسيقا في العلم"، أما الكتابة فستكون عن كتابة سيرة غيرية وسيرة ذاتية في مجال الأعمال، أما دروس النحو فتشتمل على (المنصوبات: الحال والتمييز، ثم الجر والإضافة) وجميعها تخدم مهارة الكتابة حتى تكون حسنة الصياغة والضبط. وستكون الأنشطة التعليمية متنوعة، وذلك عن طريق استخدام التكنولوجيا، ومهارات حل المشكلات، والتحليل والتركيب والتطبيق، والمشاريع التي تخدم المادة، وتنمي الإبداع والابتكار عند المتعلمات. سيتم تقييم الطالبات من خلال اختبارات شفوية وكتابية، واستمارات التقييم التي توضح قياس معايير مهارات القراءة الجهرية والاستماع والتحدث والمهارة الكتابية ومهارة حفظ النصوص، وجميعها تخدم العملية التعليمية، وتقوي هذه المهارات لدى المتعلمة.



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#### Arabic for Non-Arab

ستدرس الطالبة عن دورة حياة الإنسان موضحة مميزات كل مرحلة ومن التدرج على استخراج الفكرة الرئيسة لكل فقرة وفي المهارات النحوية ستدرس الطالبة عن الضمائر ومن ثم تصريف الافعال مع الضمائر في الإملاء ستدرس عن مهارة كتابة الهمزة المتطرفة ثم متابعة التدرج على كتابة كلمات بخط الرقعة

#### PE

The Badminton Module helps to achieve the standards set out by SHAPE America, as it will help the students to demonstrate fundamental movement skills in a variety of contexts; cooperate with and encourage classmates; accept individual differences and demonstrate inclusive behaviors; and engage in physical activity for enjoyment and self-expression. The focus will be on developing the skills required to play Badminton, striking, serving, smash and tactical awareness. Students will also develop their leadership skills by learning how to umpire a full game and apply the game rules properly.

#### Computer Science AP

in this unit "Abstraction and Programming" students will learn about the importance of abstraction and how it helps us develop programs to solve problems. They will prepare for the official theory AP exam during the month of May, 2018. In addition to submitting their explore and create task to the digital AP portfolio during the month of April.

#### Drama

##### Unit- Exam Prep (Devising Performance)

This unit will aim to consolidate all theatre strands of acting throughout the year- from acting, writing, directing and performing. The students will be expected to apply in depth characterization to their final performance of their full length devised script, bringing to life a piece of text as an individual artist in the theatre space.

#### Advanced Chemistry

##### Unit 6: Stoichiometry - Particle and Mole Relationships

Students will learn to interpret coefficients of a balanced equation as mole ratios, use mole ratios from the balanced equation to calculate the quantity of one substance in a reaction given the quantity of another substance in the reaction. (given moles, particles, mass, or volume and ending with moles, particles, mass, or volume of the desired substance)

#### French

##### Amuse-toi bien!

Students will discuss leisure activities in general, and write about a special day in their lives, learning to discuss past events. Imagining and practicing real-life strategies, they will write a letter to a friend, and understand French handwriting.



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#### Economics

The final unit will consider the impact of Globalisation. Students will debate the effectiveness globalisation has had and consider the positives and negatives it has had on a number of economies.

#### Biology; Physiology/Anatomy

##### Unit 6: Blood

In this unit, students will identify the primary functions of blood in transportation, defense, and maintenance of homeostasis. They will name the fluid component of blood and the three major types of formed elements, and identify their relative proportions in a blood sample. We will discuss the unique physical characteristics of blood and identify the composition of blood plasma, including its most important solutes and plasma proteins.

#### Art

In this unit students will work with printmaking and mix-media techniques. They will work in both abstract and representational ways and apply previous knowledge of techniques and materials to create a rich visual outcomes. Students will respond to work of selected artists and select the most suitable one as a starting point for a final piece. They will explore selected artists and show connection to their work in drawing studies.

#### Psychology I (**Careers in Psychology**)

Students will identify careers related to psychology; in psychological science and/or practice. They will identify degree requirements for psychologists and psychology-related careers. They will discuss ways in which psychological science addresses domestic and global issues.

#### Psychology II (**Social Psychology**)

Students will apply attribution theory to explain the behavior of others with specific attention to the fundamental attribution error, self-serving bias, just-world hypothesis and differences between collectivistic and individualistic cultures. They will discuss attitude formation and how attitudes change with specific attention to schema, primacy effect, cognitive dissonance and the central and peripheral routes to persuasion. They will then predict the impact of others on individual behavior with specific attention to deindividuation, the self-fulfilling prophecy, the bystander effect and social facilitation. Students will learn how individuals respond to expectations of conformity, and explain how individuals respond to expectations of compliance. They will describe the structure and function of different kinds of group behavior with specific attention to group polarization and group-think. They will also describe processes that contribute to differential treatment of group members with specific attention to attraction, altruism, aggression, in-group/out-group dynamics, ethnocentrism, prejudice. Students will then use what they have learned about group behavior to analyse group dynamics in real world situations.

#### Advanced Biology

##### Human Populations

Students will study factors that affect human population size. The biotic potential and carrying capacity that determines a population size. The history of human population growth and carrying capacity. They will then compare and contrast the differences in developed and developing nations across the world.



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Advanced Physics

Unit 6 - Electromagnetism

Students will study the properties of magnets, magnetic fields, electromagnetism, how to solve forces on a current-carrying wire, to use a galvanometer, how to solve forces on a single charged particle, how to solve induced electromotive force in a wire and the workings of electric generators.