



ARAB UNITY SCHOOL

CURRICULUM OVERVIEW

COMPUTING

YEAR 8

2019 – 2020

A guide for Parents and Students

SUBJECT: Computing

Year: 8

Overview of the year:

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyze problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Topic	Objectives	Assessment/Activity	Skills(SECRET)
<p>TERM ONE</p> <p>Main topic, skills and content:</p> <ul style="list-style-type: none"> • Communication and networks • Digital literacy • Programming and development 	<p>Networking and e-commerce -</p> <ul style="list-style-type: none"> • Explain the different types of networking. • Understand the difference between e-commerce and e-learning. • Identify the importance of computer networking. • Explain the hardware requirements of networking. <p>Introduction to digital literacy -</p> <ul style="list-style-type: none"> • Explain the benefits of digital literacy. • Understand the advantages of using web camera. • Explain the disadvantages of using web camera. • Define digital literacy. <p>Introduction to Photoshop -</p> <ul style="list-style-type: none"> • Use color replacement tool and marquee tool in Photoshop effectively. • Give the importance of lasso tool and brush tool in Photoshop. • Describe image editing using Adobe Photoshop. • Explain how to add an image using Adobe Photoshop <p>Tools used in Photoshop -</p> <ul style="list-style-type: none"> • Explain the importance of filters in Photoshop. • Use filters in Photoshop. 	<p>ASSESSMENTS:</p> <p>1. Dell organization has shown a drastic change in doing its product business in UAE region. For the past years direct selling has potentially improved from traditional marketing. Give reasons. Identify the networks being used and list any three facts of using them.</p> <p>2. Photo edit your image and make it creative. Use retouching tools and lighten the dark areas. At last, you need to insert a text "HAPPY BIRTHDAY" at the end. Also, apply stained Glass Effect Texture to this text. Then, insert one more text: "Done By: Your Name & Class" & also give Flag style to this text. This text will come at the bottom right corner of the image.</p>	<p>Reflective learning involves students thinking about what they have read, done, or learned, relating the lesson at hand to their own lives and making meaning out of the material.</p> <p>Creative thinker – Students create the ability to devise new ways to carry out tasks, solve problems, and meet challenges.</p>

	<ul style="list-style-type: none"> Describe how to use retouching tools in Photoshop Describe retouching tool used in Photoshop 		
<p>TERM TWO</p> <p>Main topic, skills and content:</p> <ul style="list-style-type: none"> Algorithms Data & Data Representation Programming and development 	<p>Algorithms and Flowchart -</p> <ul style="list-style-type: none"> Solve complex problems using algorithm and flowchart. Design a flowchart efficiently. Identify how problem solving is being done using algorithm and flowchart. Explain the importance of algorithm and flowchart <p>Digital system Identify what is a logic gate.</p> <ul style="list-style-type: none"> Explain the differences between the logic gates. Identify logic gates and simple bitwise operations. Identify complex logic circuits. <p>Introduction to Dreamweaver CS3 -</p> <ul style="list-style-type: none"> Identify the different types of lists used in Dreamweaver. Describe how to add lists using Dreamweaver. Explain how to format text using Dreamweaver. Identify the various elements used in Dreamweaver CS3. <p>Images and framesets in Dreamweaver CS3-</p> <ul style="list-style-type: none"> Use framesets, named anchor and hyperlink efficiently. Describe how to create framesets in Dreamweaver. Identify the importance of hyperlink in Dreamweaver. Explain how to add image and resize the image in Dreamweaver. 	<p>ASSESSMENTS:</p> <p>1. An Algorithm is defined as a finite set of instructions. Explain the steps to create an algorithm and write an algorithm that computes the average of three input quizzes, and then display the result.</p> <p>2. You have to design a webpage using Dream Weaver on the topic Guinness book of records. Insert an image related to the topic, the content should have bullet list and a table showing a maximum of 5 records with its detail.</p>	<p>Self manager- Students create skills in managing and looking at problems or situations from a fresh perspective.</p> <p>Enquirers- Students perform systematic investigation and study of materials and sources in order to establish facts and reach new conclusions about programming languages.</p>
<p>TERM THREE</p> <p>Main topic, skills and content:</p> <ul style="list-style-type: none"> Hardware & Processing 	<p>Binary computing -</p> <ul style="list-style-type: none"> Use decimal number and binary number efficiently. Identify binary conversion Identify decimal number system Understand binary addition and subtraction <p>Hardware -</p> <ul style="list-style-type: none"> Identify the importance of smart cards. 	<p>ASSESSMENTS:</p> <p>1. Consider a banker who has to process cheques, processes cash request and provide new cards to customers. List the direct data entry devices a bank</p>	<p>Self Organizer- Students organize the content in chronological order and prepare a report on it.</p>

<ul style="list-style-type: none"> Programming and development 	<ul style="list-style-type: none"> Explain about smart card. Describe the importance of direct entry devices. Identify direct entry devices. <p>Creating lists, table and inserting images in HTML</p> <ul style="list-style-type: none"> Use the list, table and image tags effectively. Identify the different list tags in HTML. Explain how to insert and resize an image in HTML. Understand the basic HTML tags. <p>Introduction to MS access -</p> <ul style="list-style-type: none"> Add data to a table in Datasheet view. Identify the data types available in Microsoft access. Identify the elements of Microsoft access. Define the term database. <p>Microsoft access design view, queries, forms and reports</p> <ul style="list-style-type: none"> Explain the uses of a report. Create a query in Query design, save and run it Define the term query. Explain the need for a primary key. 	<p>may use and describe how they would be used.</p> <p>2. Students will be assessed on their knowledge and understanding of the essential core content of the discipline of Computing, and demonstrate the ability to apply content knowledge in the specification, analysis, design, implementation and testing of a software solution. Practical experience of using MS Access, creating query and a report as well doing calculations will guide them to improve their programming and development skills.</p>	<p>Reflective learning involves students thinking about what they have read, done, or learned, relating the lesson at hand to their own lives and making meaning out of the material.</p>
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