



Dear Parents and Guardians,

KS4 –

All Grade 9 students are doing ICT as a double lesson each week. Student who have selected Computing as an optional subject are attending an additional 5 lessons a week to cover the Computing course.

KS3 –

Grade 6, 7 and 8 are attending a double lesson every week. In each lesson, students are learning theory topics along with practical skills.

The Core Topics:

This term

Grade 6

Students will cover the topics of E-safety, Security and Ethics. Students will build programming logic during practical sessions using www.codecombat.com

Grade 7

Students will learn about; components and types of computers, application of computational thinking and basic Programming skills.

Grade 8

Students will be focusing on document production and computer architecture during their Computing lessons.

Grade 9

In ICT lessons Grade 9 students will be learning the basics of computational thinking and will also work on Algorithms and Flowcharts during the term along with some project work on the basic components of a computer and generations of computers.

In Computing lessons Grade 9 students who have chosen this option will be covering theory topics on data representation in computers and practical topics like computational thinking and programming. Students will learn and apply the fundamental principles and concepts of computer science, including decomposition (breaking a problem into smaller components), abstraction (removing unnecessary

details), logic building, algorithms (flowchart and Pseudocode) and data representation.

How Can You Help? Encourage your child to enjoy working on their Scratch accounts to build their logic skills and their skill in programming.

Homework: All assigned homework will be available on the BRIC system as well as being explained to students in class.

Useful Website:

Grade 6: <https://codecombat.com/>

Grade 7: <https://scratch.mit.edu/>

www.bbc.co.uk/education/subjects/zvc9q6f

Grade 8: www.bbc.co.uk/education/subjects/z8mtsbk

Grade 9 (ICT): <http://www.bbc.co.uk/education/subjects/zqmtsbk>

Grade 9 (Computing): <http://www.bbc.co.uk/education/subjects/z34k7ty>

Curriculum Content for Sep/Oct 2016:

Grade 6: E-Safety

Session Name	Description	Learning Intention
E-safety, Security and Ethics	E-Safety	<ul style="list-style-type: none">• To understand which kinds of websites have privacy policies, and why.• To practice checking websites they visit for privacy policies and privacy seals of approvals• To learn which information they should avoid sharing online because it is private.• To learn that they have a digital footprint and that information from it can be searched; copied and passed
	Secure Websites- How to check	
	Cyber Footprint	

Cyber Ethics

on; seen by a large, invisible audience, and can be persistent.

- To recognize that people's online information can be helpful or harmful to their reputation and image.
- To consider their own digital footprints and what they want those footprints to be like in the future.

Grade 7: Computing

Session Name	Description	Learning Intention
Knowing Computers	Benefits and limitations of computers.	<ul style="list-style-type: none"> •To understand the function and purpose of a computer.
	Types of Computers	<ul style="list-style-type: none"> •To understand that not every computer looks like a PC and that many everyday devices contain computers
	Generations of Computers.	<ul style="list-style-type: none"> •To be able to identify the first electronic computer
	Components of Computers	<ul style="list-style-type: none"> •To be able to identify the main component/parts of a computer
	Input, Output and Storage devices	<ul style="list-style-type: none"> •To be able to explain the role of the main components within a computer •To be able to define the term 'software' •To understand that software provides instructions for the computer •To be able to identify different types of software •To be able to distinguish between system software and application software
Programming Skills	Introducing Scratch	<ul style="list-style-type: none"> •To explain the interface of Scratch •To explain difference between bitmap image and vector image.
	Project 1: Monster's feeling	<ul style="list-style-type: none"> •To explain using Sprites, applying backgrounds, adding and deleting sprites.
	Project 2: Introducing to Story boards	<ul style="list-style-type: none"> •To learn and practice switching between costumes and customizing costumes.
	Project 3: Side Scroller	<ul style="list-style-type: none"> •To learn about events and different control structures.
	Project 4: Parallax	<ul style="list-style-type: none"> •To apply techniques learned in different assigned projects.

Grade 8: Document Production

Session Name	Description	Learning Intention
Document Production	Students will learn about importance of document production, different software available, and its application	To learn and practice following skills: <ul style="list-style-type: none"> •Set page size, orientation, margins, gutter margins •Set number of columns in a page. •Set column width and spacing between columns •Defining the term widow and orphan •Explaining why it is necessary to use page, section and column break to adjust pagination and avoid widows and orphans •Set and remove page section and column break. •Set line spacing, paragraph indentation, hanging paragraphs •Formatting text: bold, italic, bulleted, lists •Inserting, formatting and editing a table structure •Mail merge a document with a data source.
Page Layout	Students will learn methods to create basic document and will learn difference between different layouts.	
Formatting documents	Students will learn different formatting techniques for document production	
Header/ Footer	Students will learn to insert automated header footer and benefits.	
Inserting and formatting Table	Students will learn to insert table, formatting the tables, applying design, merging cells and adding images in the table.	
Mail Merge	Students will learn mail merging a document with a data source.	

Grade 9 ICT:

Session Name	Description	Learning Intention
Components of Computer	Basic Components of Computer	<ul style="list-style-type: none"> • To understand basic internal and external hardware of Computers • To understand the purpose, benefits and limitations of different types of peripheral devices. • To learn about classification/types of ..
	Peripheral devices: benefits and limitations	

	Types of Software: benefits and limitations	<p>software.</p> <ul style="list-style-type: none"> • To understand and be able to identify different types of system or application software. • To understand the purpose, benefits and limitations of different types of software. • To discuss and analyse effects of emerging technologies
	Effects of emerging technologies	
Computational Thinking	To apply computational skills to solve a problem.	<ul style="list-style-type: none"> • Understanding concept of computational thinking. • Applying computational thinking to overcome simple problems. • To learn and apply decomposition (breaking problem into smaller components), abstraction (removing unnecessary details), logic building, algorithms (flowchart and Pseudocode) for finding an effective solution. • Writing Algorithm for problem, drawing flowchart and writing Pseudocode for given problem. • Programming for the problem.
	Decomposition	
	Abstraction	
	Generalization	
	Algorithm and Flow Charts	
	Evaluating the solution	

Grade 9 Computing: Data and Data Representation:

Session Name	Description	Learning Intention
Data and data representation	Data and Information	<ul style="list-style-type: none"> • To define the terms bit, nibble, byte, kilobyte, megabyte, gigabyte, terabyte • To understand that data needs to be converted into a binary format to be processed by a computer. • To be able to explain why data is represented in computer systems in
	Why Binary in Computers?	

<p>Converting between Binary and Denary Data</p>	<p>represented in computer systems in binary form.</p> <ul style="list-style-type: none"> ● To learn converting data from denary to binary and from binary to denary.
<p>Hexadecimal Conversions</p>	<ul style="list-style-type: none"> ● To learn converting data from denary to hexadecimal and from hexadecimal to denary. ● To learn converting data from hexadecimal to binary and from binary to hexadecimal.
<p>Encoding Images, Audio and Video Files</p>	<ul style="list-style-type: none"> ● To learn about how images, audio and video files are being encoded.

Best Regards

Ms. Samia Zaigham

samia.z@albasmachool.ae Grade 7, 8 and 9

Ms Manal Albetar

manal@albasmachool.ae Grade 6

ICT & Computing Specialist Teachers