vSubject Group Overview

Digital Design

Grade 6

Unit title	Key Concept	Related concept(s)	Global context	Statement of Inquiry	ATL Skills & IB Learner Profile	Content	Assessment & MYP Objectives
Unit 1 - Superhero 10 Weeks	Communication	Form, Innovation	Personal and cultural expression (*Artistry, craft, creation, beauty)*	Innovative ways can help to communicate various artistic creations and perspectives.	**Communication→** • Share ideas with audiences using digital media. • Use intercultural understanding to interpret communication • Use a variety of media to communicate with a range of audiences **THINKING→ Creative skills** • Create original work and ideas, use existing works and ideas in new way. **Thinking →Transfer skills** • Make connections between subject groups and disciplines. **Learner Profile** ● Communicator ● Principled	**Technical content:** ● Principles of graphic design and desktop publishing. ● Principles of design, layouts, formatting etc. ● DTP (Word, Publisher) and Graphic design software (3D Paint) ● MS Word editing ● Image resize, reposition, cut, crop, remove background, colour schemes etc. ● Text and font editing. ● Page layouts and margins ● Save a file in different formats ● Use of comic strips	**Formative 1:**" IB learner profile" using Word text and image formatting **Formative 2:** Based on Criteria B- group work (developing ideas for the comic and making layout of it in Word, comic about digital citizenship) **Formative 3:** Based on Criteria C – group work (creating a two page comic using Word for the above comic layout) **Summative**: Make a comic about a superhero /fairy tale character/ any famous personality/celebrity in Word. This unit will help student to explore text and image editing concepts in Word as well as learn about Digital Citizenship. They will be assessed on Criteria B,C and D. **B: Developing ideas** i. present feasible design ideas, which can be correctly interpreted by others ii. present the chosen design **C: Creating the solution** i. outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution ii. demonstrate excellent technical skills when making the solution iii. follow the plan to create the solution, which functions as intended iv. list the changes made to the chosen design and plan when making the solution **D: Evaluating** i. outline simple, relevant testing methods, which generate data, to measure the success of the solution ii. outline how the solution could be improved outline the impact of the solution on the client/target audience
Unit 2 Input Output and Storage 9 Week	Development	Resources, Sustainability	Orientation in time and space	Turning points in history have led to development in sustainable resources.	**Self-management Skills: Organization skills** Managing time and tasks effectively ● Plan short- and long-term assignments; meet deadlines ● Select and use technology effectively and productively **Thinking Skills:** **Critical thinking skills**	**Technical Content**: Input and Output devices with the basics of computers systems. Type of input and output devices, storage media and units, primary and secondary sources. History of computers. Power Point, master slide, transitions, animations, videos and audio in slides, automated presentation. Movie Maker- How to edit and create a	**Formative 1**: Research based – criteria A and PowerPoint techniques **Formative 2**: Making a 1-minute movie about "Favourite Sport" to learn movie making using IMovie or Movie Maker. Link with PE **Summative**: Create a movie for the input/output and storage devices used in a computer system for a given scenario. This unit will help students to understand the various components of a computer system in various fields of application and history

					Analysing and evaluating issues and ideas ● Practice observing carefully in order to recognise problems ● Gather and organize relevant information to formulate an argument **Learner Profile** ● Open-Minded ● Balanced	movie using Movie Maker/ IMovie, adding text, video clips, music an captions to make an interesting movie.	of computers. They will learn how to make an automated PowerPoint with transitions, animations, music and video as well as learn to create and edit a movie. They will make storyboards to plan the videos. **A: Inquiring and analysing** i. explain and justify the need for a solution to a problem ii. state and prioritize the main points of research needed to develop a solution to the problem iii. present the main findings of relevant research **C: Creating the solution** i. outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution ii. demonstrate excellent technical skills when making the solution iii. follow the plan to create the solution, which functions as intended iv. list the changes made to the chosen design and plan when making the solution **D: Evaluating** i. outline simple, relevant testing methods, which generate data, to measure the success of the solution ii. outline how the solution could be improved iii. outline the impact of the solution on the client/target audience
Unit 3: Gamification - Programming 6 Weeks	Systems	Adaptation, Function	Scientific and technical innovation	The functions of a virtual environment can be adapted to build systems in the real world	**Communication Skills** Exchanging thoughts, messages and information effectively through interaction ● Use a variety of media to communicate with a range of audiences ● Collaborate with peers and experts using a variety of digital environments and media **Thinking Skills** **Creative Thinking Skills** Generating novel ideas and considering new perspectives ● Design improvements to existing machines, media and technologies ● Apply existing knowledge to generate new ideas, products or processes **Learner Profile** ● Thinker ● Inquirer	**Technical Content:** ● Principles of programming ● LOGO programming, ● Algorithms, ● Coding using block programming.	**Formative:** **Formative 1:** Logo programming basics **Formative 2:** Algorithms- based on criteria B- group work **Formative 3:** Making a simple game using block programming - group work (the whole class makes the same game) **Summative:** Student will create a game using block programming based on varied scenarios of their choice, This unit will help student to explore the various terms used in coding Student will learn the basics of coding using block programming application and create game in it. **A: Inquiring and Analysing** i. explain and justify the need for a solution to a problem ii. state and prioritize the main points of research needed to develop a solution to the problem iii. describe the main features of an existing product that inspires a solution to the problem iv. present the main findings of relevant research **C: Creating the solution** i. outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution ii. demonstrate excellent technical skills when making the solution iii. follow the plan to create the solution, which functions as intended

Comment [1]: Please format these in the same way as my English example. Unit 1 is fine, but the other units are descriptive rather than indicating the actual strands.

							iv. list the changes made to the chosen design and plan when making the solution
Unit 4: Data Trends	Communities	Function, Market and Trends	Globalisation and Sustainability	Data decisions in communities lead to emerging markets and trends.	**Self-management Skills:** **Organization skills** ● Managing time and tasks effectively ● Make Data driven decisions **Research** **Information literacy skills** ● Finding, interpreting, judging and creating information ● Collect and analyse data to identify solutions and make informed decisions **Learner Profile** ● Caring ● Reflective	**Technical Content:** ● Spreadsheets ● Working with basic layouts ● Filters ● Functions ● Formulae ● Charts/graphs	**Formative 1**: Learning the basics of Excel (worksheets) – Animal Survey. **Formative 2**: Learning formatting and simple functions in Excel "Count your calories" **Summative**: Make a data sheet for an event at school. **C: Creating the solution** i. outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution ii. demonstrate excellent technical skills when making the solution iii. follow the plan to create the solution, which functions as intended iv. list the changes made to the chosen design and plan when making the solution

Grade 7

Unit title	Key Concept	Related concept(s)	Global context	Statement of Inquiry	ATL Skills	Content	Assessment & MYP Objectives
					●		i.
Unit 1 Internet and the Web 12 Week	Development	Innovation, Market Trends	Globalization and Sustainability	Market is sustained by global development and innovation.	**Research:** **Information Literacy skills:** Finding, interpreting, judging and creating information ● Evaluate and select information sources and digital tools based on their appropriateness to specific tasks ● Understand and use technology systems **Thinking** **Creative thinking skills** Generating novel ideas and considering new perspectives ● Use brainstorming and visual diagrams to generate new ideas and inquiries ● Design improvements to existing machines, media and technologies	**Technical Content:** ● Webpage and website ● HTML tags ● Text formatting ● Font formatting ● Marquee tags ● Background and colors ● Image formatting ● Audio /visuals ● Hyperlinks	**Formative:** Formative 1: Research technical terms related to web designing. Formative 2: Develop ideas to make a webpage using wireframes Formative 3: Create the webpage using HTML **Summative:** Student will create a webpage using HTML based on a scenario given to them **A: Inquiring and Analysing** i. explain and justify the need for a solution to a problem ii. state and prioritize the main points of research needed to develop a solution to the problem iii. describe the main features of an existing product that inspires a solution to the problem iv. present the main findings of relevant research **B: Developing ideas** i. develop a list of success criteria for the solution ii. present feasible design ideas, which can be correctly interpreted by others iii. present the chosen design

					Learner Profile ● Communicators ● Open-minded		iv. create a planning drawing/diagram, which outlines the main details for making the chosen solution **C: Creating the solution** i. outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution ii. demonstrate excellent technical skills when making the solution iii. follow the plan to create the solution, which functions as intended iv. list the changes made to the chosen design and plan when making the solution **D: Evaluating** i.outline simple, relevant testing methods, which generate data, to measure the success of the solution ii.outline the success of the solution against the design specification iii.outline how the solution could be improved outline the impact of the solution on the client/target audience
Unit 2: E-Promotions (MS Publisher) 10 Week	Communication	Adaptation Perspective	Identities and relationship	Images can communicate different perspective and adapt to build identities.	**Communication:** Exchanging thoughts, messages and information effectively through interaction ● Use a variety of media to communicate with a range of audiences ● Collaborate with peers and experts using a variety of digital environments and media **Self-management:** **Organization skills** Managing time and tasks effectively ● Plan strategies and take action to achieve personal and academic goals ● Select and use technology effectively and productively **Learner Profile** ● Communicators Reflective	Technical Content: ● Identifying fake and real images ● Evaluating the impacts of fake images on perspectives ● Image manipulation using GIMP ● (layers, filters, effects, image formats, clone stamp tool, fuzzy select tool, selection tools, text tool and other basic GIMP tools) ● Internet research skills. ● Photoshop ● DTP software	**Formative 1:** Sketch/plan/design a brochure about a landmark/event in Dubai (criteria B) **Formative 2:** Making a brochure in Photoshop. (criteria C) **Summative:** Student will use tools in DTP software to edit images and create a fake story to change the perspective of individuals. Make a movie in the end to show the image transformed. This unit will help student to understand the Photoshop tools to edit and manipulate images. It will improve the DTP skills in students. **C: Creating the solution** i. outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution ii. demonstrate excellent technical skills when making the solution iii. follow the plan to create the solution, which functions as intended iv. list the changes made to the chosen design and plan when making the solution **D: Evaluating** ii. outline simple, relevant testing methods, which generate data, to measure the success of the solution iii. outline how the solution could be improved outline the impact of the solution on the client/target audience

Unit 4: Family Time (Board games) 4 weeks	Communities	Collaboration, Ergonomic	Scientific and Technical Innovation	Communities enhance collaboration with technical innovations in the world.	**Communication Skills** Exchanging thoughts, messages and information effectively through interaction ● Use a variety of media to communicate with a range of audiences ● Collaborate with peers and experts using a variety of digital environments and media **Thinking Skills** **Creative Thinking Skills** Generating novel ideas and considering new perspectives ● Design improvements to existing machines, media and technologies ● Apply existing knowledge to generate new ideas, products or processes **Learner Profile** ● Principled ● Open-minded	**Technical Content:** DTP skills ● Image and text formatting ● Layouts and page formatting ● Online tools for games ● Design layouts and plan strategies ● Rules and instructions for the games. ● Screencast	**Formative 1:** Learn what a board game is? **Formative 2:** Layout planning and design making using computer software. **B: Developing ideas** i. develop a list of success criteria for the solution ii. present feasible design ideas, which can be correctly interpreted by others iii. present the chosen design iv. create a planning drawing/diagram, which outlines the main details for making the chosen solution **C: Creating the solution** i. outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution ii. demonstrate excellent technical skills when making the solution iii. follow the plan to create the solution, which functions as intended iv. list the changes made to the chosen design and plan when making the solution

Comment [2]: Please format these in the same way as my English example. Unit 1 is fine, but the other units are descriptive rather than indicating the actual strands.

Grade 8

Unit title	Key Concept	Related concept(s)	Global context	Statement of Inquiry	ATL Skills	Content	Assessment & MYP Objectives
Design Your Space (Sketchup) 6 weeks	Systems	Adaptation Innovation	Scientific and technical innovation	Adaptations help to innovative and create systematic models to meet the end-users requirement.	**Self-Management:** Organization skills ● Managing time and tasks effectively ● Set goals that are challenging and realistic ***Reflection skills*** ● (Re-)considering the process of learning; choosing and using ATL skills ● Develop new skills, techniques and strategies for effective learning ● Consider ATL skills development How can I share my skills to help peers who need more practice? **Thinking Skills** *Creative thinking skills* ● Generating novel ideas and considering new perspectives Use brainstorming and visual diagrams to generate new ideas and inquiries ● Create novel solutions to authentic problems ● Create original works and ideas; use existing works and ideas in new ways	**Technical Content:** ● Dimension ● Measurements ● 3D modelling software ● Lines ● Shapes ● Rotate ● Push pull ● Arc ● Drawing ● Perspectives ● Cameras ● Grouping ● Making news shapes using existing shapes.	**Formative 1:** Based on developing ideas of design cycle to design a 3D object- Criteria B **Formative 2:** Design challenge in Tinker CAD – criteria C **Summative: Students** will design a 3D structure which has to be both scientific and sustainable **B: Developing ideas** i. develop a list of success criteria for the solution ii. present feasible design ideas, which can be correctly interpreted by others iii. present the chosen design iv. create a planning drawing/diagram, which

					Learner Profile ● Knowledgeable ● Risk Taker ● Thinker		outlines the main details for making the chosen solution **C: Creating the solution** i. outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution ii. demonstrate excellent technical skills when making the solution iii. follow the plan to create the solution, which functions as intended iv. list the changes made to the chosen design and plan when making the solution **D: Evaluating** i. outline simple, relevant testing methods, which generate data, to measure the success of the solution ii. outline the success of the solution against the design specification iii. outline how the solution could be improved outline the impact of the solution on the client/target audience
Animation (Flash animation) 12 weeks	Communities	function, perspective	Personal and cultural expression	The artistry and functionality of a product depends on the communities they are made for.	**Communication** **Communication skills** ● Exchanging thoughts, messages and information effectively through interaction ● Give and receive meaningful feedback ● Collaborate with peers and experts using a variety of digital environments and media **Learner Profile** ● Caring ● Reflective ● Principled	**Technical Content:** ● Digital storytelling ● 2D animation software ● Key frames ● Timeline ● Frame rates ● Tweens ● Motion tweens ● Inverse kinematics ● Digital Citizenship	**Formative 1:** Learning to use Flash Animation **Formative 2**: Solar system in Flash **Summative :** To create an animation about digital citizenship **A: Inquiring and Analysing** i. explain and justify the need for a solution to a problem ii. state and prioritize the main points of research needed to develop a solution to the problem iii. describe the main features of an existing product that inspires a solution to the problem iv. present the main findings of relevant research **C: Creating the solution** I. outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution II. demonstrate excellent technical skills when making the solution III. follow the plan to create the solution, which functions as intended IV. list the changes made to the chosen design and plan when making

							the solution **D: Evaluating** I.outline simple, relevant testing methods, which generate data, to measure the success of the solution II.outline the success of the solution against the design specification III.outline how the solution could be improved IV.outline the impact of the solution on the client/target audience
Digital Marketing (InDesign/ Publisher) 8 weeks	Communication	Innovation , Markets and trends	Identities and Relationship	Markets use innovative perspectives to communicate and commercialize products.	**Communication** Communication skills ● Exchanging thoughts, messages and information effectively through interaction Thinking Creative thinking skills ● Generating novel ideas and considering new perspectives ● Design improvements to existing machines, media and technologies ● Create original works and ideas; use existing works and ideas in new ways **Learner Profile** ● Balanced ● Open-minded ● Thinker	**Technical Content:** ● Desktop Publishing software: InDesign / Publisher/ Photoshop. ● Image editing ● Text formatting ● Page layouts ● Columns ● File formats.	**Formative 1:** Develop the design layout of a flyer- Criteria B **Formative 2:** Make a flyer for the company with all learnt features in DTP -Criteria C **Summative:** Students will choose a product or service and create a brochure and a promotional video for its services, in order to find a better place in the market. **B: Developing ideas** I.develop a list of success criteria for the solution II.present feasible design ideas, which can be correctly interpreted by others III.present the chosen design IV.create a planning drawing/diagram, which outlines the main details for making the chosen solution **C: Creating the solution** I.outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution II.demonstrate excellent technical skills when making the solution III.follow the plan to create the solution, which functions as intended IV.list the changes made to the chosen design and plan when making the solution
On a cloud-Cloud Computing 4 weeks	Development	Collaboration, resources and sustainability	Globalisation and sustainability	Collaborative usage of resources aids development and sustainability	**Research** Information literacy skills ● Finding, interpreting, judging and creating information ● Access information to be informed and inform others ● Create references and citations, usefootnotes/endnotesandconstructabibliographyaccordingtorecognised conventions Identify primary and secondary sources **Thinking** Critical thinking skills ● Analysing and evaluating issues and ideas	**Technical Content** ● Cloud, uses of cloud computing ● Companies which provide clouds ● Types of clouds, IaaS, PaaS, SaaS models	**Formative 1:** Research based on cloud technologies, **Summative:** To create a movie explaining the research of cloud computing. **A: Inquiring and Analysing** i.explain and justify the need for a solution to a

					● Gather and organize relevant information to formulate an argument ● Revise understanding based on new information and evidence	● Private and public cloud, Advantages and disadvantages of cloud computing ● Functionality of cloud computing	problem ii. state and prioritize the main points of research needed to develop a solution to the problem iii. describe the main features of an existing product that inspires a solution to the problem iv. present the main findings of relevant research

Grade 9

Unit title	Key Concept	Related concept(s)	Global context	Statement of Inquiry	ATL Skills	Content	Assessment & MYP Objectives
Unit 1: E-Book 14 weeks	Communication	Form, Function	Personal and Cultural expression	Various forms and functions of communication drive personal design decisions.	**Communication** **Communication skills** ● Exchanging thoughts, messages and information effectively through interaction ● Give and receive meaningful feedback Use appropriate forms of writing for different purposes and audiences ● Collaborate with peers and experts using a variety of digital environments and media ● Share ideas with multiple audiences using a variety of digital environments and media **Self-management** **Organization skills** ● Managing time and tasks effectively ● Keep an organized and logical system of information files/notebooks ● Select and use technology effectively and productively **Reflection skills** ● (Re-)considering the process of learning; choosing and using ATL skills ● Develop new skills, techniques and strategies for effective learning Consider content **Learner Profile** ● Creative ● Thinker ● Open minded	Basic skills in word/publisher (or other DTP package), strategies for communicating ideas effectively Desktop publishing skills using a DTP software which includes: ● colour schemes ● text layouts and fonts ● page layout (margins, paper size, orientation) ● Publishing and printing ● File formats (pdf, etc.) ● picture layout and formatting ● image editing ● applying the design elements and principles as appropriate for a magazine cover design ● Hyperlinks	**Formative 1:** Developing ideas – ACCESS FM and design specifications **Formative 2:** Designs with annotations for cover page, index page and inside page **Formative 3:** Making a flyer/brochure with the learnt technical skills in the software used. **Summative**: Design an Online book using the DTP software used for the emerging technologies in the world today. **B: Developing ideas** i. develop a list of success criteria for the solution ii. present feasible design ideas, which can be correctly interpreted by others iii. present the chosen design iv. create a planning drawing/diagram, which outlines the main details for making the chosen solution **C: Creating the solution** i. outline a plan, which considers the use of resources and time,

							sufficient for peers to be able to follow to create the solution ii. demonstrate excellent technical skills when making the solution iii. follow the plan to create the solution, which functions as intended iv. list the changes made to the chosen design and plan when making the solution **D: Evaluating** i.outline simple, relevant testing methods, which generate data, to measure the success of the solution ii.outline the success of the solution against the design specification iii.outline how the solution could be improved iv.outline the impact of the solution on the client/target audience
Unit 2: Program -IT 14 weeks	Communities	Collaboration, Innovation	Scientific and technical Innovation	Innovative products and solutions help communities progress.	**Social** **Collaboration skills** ● Working effectively with others ● Help others to succeed ● Make fair and equitable decisions **Thinking** **Critical thinking skills** ● Analysing and evaluating issues and ideas ● Practice observing carefully in order to recognise problems ● Interpret data Test generalizations and conclusions ● Revise understanding based on new information and evidence **Creative thinking skills** Generating novel ideas and considering new perspectives ● Use brainstorming and visual diagrams to generate new ideas and inquiries ● Create original works and ideas; use existing works and ideas in new ways **Learner Profile** ● Inquirer ● Risk Taker ● Knowledgeable	Technical Content: Pseudo code Flowchart Programming concepts **Procedural knowledge** ● Strings, ● Numeric data ● Datatypes ● Type conversion ● Adding comments, ● Mathematical-operators, ● concatenation , ● variables, ● comparative operators ● user-input statements ● Output statement-(print) ● Conditional statements	**Formative 1: If Conditions** **Formative 2: Loops** **Formative 3: Functions and List** **Summative:** Create a program (calculator/quiz/game) using the programming language learnt **A: Inquiring and Analysing** i.explain and justify the need for a solution to a problem ii. state and prioritize the main points of research needed to develop a solution to the problem iii. describe the main features of an existing product that inspires a solution to the problem iv. present the main findings of relevant research **C: Creating the solution** i.outline a plan, which considers the use of resources and time, sufficient for peers to be able to follow to create the solution

						● Data types ● Loops for and while, ● Defining a function ● lists	ii.demonstrate excellent technical skills when making the solution iii.follow the plan to create the solution, which functions as intended iv.list the changes made to the chosen design and plan when making the solution **D: Evaluating** i.outline simple, relevant testing methods, which generate data, to measure the success of the solution ii.outline the success of the solution against the design specification iii.outline how the solution could be improved iv.outline the impact of the solution on the client/target audience
Unit 3: Netweb 10 weeks	Development	Adaptations, Perspectives	Globalisation and Sustainability	Modern perspectives help in adapting to emerging global development.	**Research** **Information literacy skills** ● Finding, interpreting, judging and creating information ● Understand and use technology systems ● Create references and citations, usefootnotes/endnotesandconstructabibliographyaccordingtorecognised conventions ● Identify primary and secondary sources **Thinking** **Creative thinking skills** ● Generating novel ideas and considering new perspectives ● Use brainstorming and visual diagrams to generate new ideas and inquiries ● Create novel solutions to authentic problems Create original works and ideas; use existing works and ideas in new ways **Learner Profile** ● Caring ● Balanced ● Principled	**Technical content:** Web Design- Basic skills in website designing (HTML, SharePoint or any web authoring software), creative thinking. (Also STEM to be included) **Procedural knowledge** **WEBSITE designing using a suitable software- Dreamweaver CS6/ FrontPage/ HTML . Including the following** ● **Menus** ● **Hyperlinks** ● **Text** ● **Pictures** ● Links ● Tables ● CSS files ● Uploading the website on the net ● Embedding video and music.	**A: Inquiring and Analysing** i.explain and justify the need for a solution to a problem ii. state and prioritize the main points of research needed to develop a solution to the problem iii. describe the main features of an existing product that inspires a solution to the problem iv. present the main findings of relevant research **B: Developing ideas** i.develop a list of success criteria for the solution ii.present feasible design ideas, which can be correctly interpreted by others iii.present the chosen design iv.create a planning drawing/diagram, which outlines the main details for making the chosen solution