**Gulf English School**

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| TOPIC: Practical: Data Structures:Theory: Data Representation – Data Storage |
| Theme: Practical Data StructuresTheory: Data Representation  | Level: Year 10Computer Science Term 3 |
| Objectives:Pratical To be able to create and use Data Structues in programming using One-Dimensional Liosts/Arrays.Theory: To be able to understand hoe data is captured and stored on a computer.. |
| Focussing Questions | Key Words |
| **Practical**1. **What are Data structures;**
2. **How are Data Structures used in Programming?**
3. **How can the use of one-dimensional arrays help with storing related/common datatypes**

**Theory*** What are Analog and digital.
* What is Multimedia and how can Multimedia files be stored on a computer.
* How does a operating system stored MultiMedia files in a digital format?
* What are Musical Instrument Digital Interface (MIDI) files, JPEG files, MP3 and MP4 files
* What is data compression (lossless and lossy) as applied to music/video, photos and text files

Resources:* PowerPoint
* Past Papers
* Google Gloo (QR Codes)
* Worksheets

Revision of work done previous year inpreparation for exam | **Practical**Data StructuresConstructs,Indexing IterationFOR LoopsVariablesCountMaxMinSlicing**Theory**ASCIITextCompressionRARPDFImagesPixelColour DepthResolutionBitrateSoundSamplingQuantisation | Explaining WordsIt is more efficient because….Explain the difference….Sampling Rate is ……Compression is the process of……..Lossy is when …. by compressing ……..Midi Files are formats ….that….. |