Unit 2 Applied computing – Introduction

Slide 1:

* Welcome to the Unit 2 Applied computing presentation as part of the VCE Applied Computing Study Design for 2020–2023.
* The purpose of this presentation is to introduce you to Unit 2 Applied computing and to provide you with a brief overview of the outcomes.

Slide 2:

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Slide 3:

* We will now have a look at Unit 2 Applied computing.

Slide 4:

* In Unit 2 Applied computing there are now two outcomes.
* These outcomes are:
* Outcome 1 – Innovative solutions
* Outcome 2 – Network security

Slide 5:

* We will now have a look at Unit 2 Outcome 1 Innovative solutions.

Slide 6:

* This table gives you an overview of the relationship between the:
* Key concepts
* Problem-solving methodology stages
* and the key knowledge within the outcome
* In Unit 2 Outcome 1 Innovative solutions we are dealing with:
* Digital systems
* Data and information
* Problem-solving with the stages of analysis, design, development and evaluation involving project management and documenting the project
* and Interactions and impact
* The key knowledge is briefly listed on the right of the table.

Slide 7:

* The purpose of this new outcome is for students to investigate the use of digital devices and emerging technologies and their applications within their innovative solution.
* Students can develop an innovative solution that takes the form of a proof of concept, prototype or product. Students choose one of the following topics to explore in greater detail:
* artificial intelligence, machine learning or neural networks
* assistive and wearable technologies or Internet of Things (IoT)
* creating with digital systems such as drones, microcontrollers, nanosatellites and robotic devices
* games development, multimedia programming or web authoring
* mixed realities such as augmented and virtual reality
* investigation/research project on innovative uses for emerging technologies such as blockchain
* any other innovative digital solution.

Slide 8:

* In Unit 2 Outcome 1 Innovative solutions, students should be able to:
* in collaboration with other students
* analyse, design, develop and evaluate an innovative solution to a need or opportunity
* involving a digital system
* The innovative solution can be in the form of a proof of concept, prototype or product.
* This will be completed as a collaborative project.

Slide 9:

* Suitable assessment tasks could involve:
* oral presentations to present a proof of concept, prototype or product
* multimedia presentations to present a proof of concept, prototype or product
* visual presentations to present a proof of concept, prototype or product
* a written report for documenting the project, and
* an annotated visual report for documenting the project

Slide 10:

* We will now have a look at Unit 2 Outcome 2 Network security.

Slide 11:

* This table gives you an overview of the relationship between the:
* Key concepts
* and the key knowledge within the outcome
* In Unit 2 Outcome 2 Network security we are dealing with:
* Digital systems
* and Interactions and impact
* The key knowledge is briefly listed on the right of the table.

Slide 12:

* In Unit 2 Outcome 2 Network security, students should be able to:
* respond to a teacher-provided case study
* examine the capabilities and vulnerabilities of a network
* design a network solution
* discuss the threats to data and information, and
* propose strategies to protect the security of data and information
* Students will also design a network using an appropriate software tool.

Slide 13:

* Suitable assessment tasks could involve:
* a case study with structured questions
* a written report
* an annotated visual report
* the design of a wireless network, and
* a working model of a wireless network

Slide 14:

* For further information please contact:
* The Curriculum Manager of Digital Technologies at the Victorian Curriculum and Assessment Authority.
* Thank you for watching this video.