**Phil Feain** - Hello and welcome to the VCE Algorithmics Unit 3 School-based Assessment on-demand video for the Unit 3 Outcome 2 SAC for 2023. The purpose of Video 5 is to support teachers with understanding how to plan the Unit 3 Outcome 2 SAC task for Algorithmics (HESS). My name is Phil Feain and I'm the Curriculum Manager for Digital Technologies with the VCAA.

The purpose of this session is to build the capacity of teachers to develop compliant, rigorous and engaging VCE assessment tasks in line with the VCE assessment principles and to provide an overview of how to plan for the Unit 3 Outcome 2 School-assessed Coursework task. This presentation will cover: the Unit 3 Outcome 2 statement, key knowledge, key skills the assessment task and planning the task.

Over the next few slides, we'll go through Unit 3 Outcome 2. Looking at the outcome statement: On completion of this unit the student should be able to define and explain algorithmic design principles, design algorithms to solve information problems using basic algorithm design patterns and implement the algorithms. You need to ensure the SAC task meets this.

Here's the key knowledge. These can be used to help you to develop the task or tasks. The scenario for the tasks should only reference these bullet points. And here are the key skills. You develop your assessment task to enable students to meet these. You want students to be able to: interpret pseudocode and execute it manually on given input, write pseudocode, identify and describe recursive, iterative, brute-force search and greedy design patterns within algorithms, design recursive and iterative algorithms, design algorithms by applying the brute-force search or greedy algorithm design pattern, write modular algorithms using ADTs and functional abstractions, select appropriate graph algorithms and justify the choice based on their properties and limitations, explain the correctness of the specified graph algorithms, use search methods on decision trees and graphs to solve planning problems, implement algorithms, including graph algorithms, as computer programmes in a very high-level programming language that directly supports a graph ADT, demonstrate the correctness of simple iterative or recursive algorithms using structured arguments that apply the methods of induction or contradiction.

Next is the assessment task itself. In response to given stimulus material: create one or more designs of algorithms that apply algorithm design patterns or select appropriate graph algorithms to solve information problems and implement an algorithm. The total marks allocated must be out of 50 marks. Over the remaining slides we'll look at planning the Unit 3 Outcome 2 SAC task. This slide shows three useful VCAA resources that will help you with planning the assessment task. On the left we have the Algorithmics Study Design that includes the Unit 3 Outcome 2. Then we have the support material with Sample approaches to developing an assessment task.

And finally, we have the Unit 3 Outcome 2 Performance descriptors. The study design is the first resource to follow when planning to develop the Unit 3 Outcome 2 assessment task. It details the background to the outcome in the area of study statement. It then provides the outcome statement, lists the key knowledge, which needs to be taught to students and then lists the key skills, which is how the outcome is to be assessed. It also provides details regarding the assessment task, the number of marks that it is out of and its contribution to the study score. The Sample approaches to developing an assessment task can be found in the support material.

The purpose of this resource is to assist you with understanding some of the considerations when planning a task, such as: the requirements of the outcome, determining the teaching and learning activities, designing the assessment task, conditions of the assessment task and marking the assessment task. The performance descriptors assist you to develop your assessment of the Unit 3 Outcome 2 SAC task. The performance descriptors are based on the key skills. These can be used to develop the assessment criteria or the marking scheme for the task. Total marks are to be out of 50.

This presentation covered: the Unit 3 Outcome 2 statement, looked at the key knowledge, looked at the key skills, looked at the assessment task and looked at how to plan for the assessment task. Thank you for following this presentation. If you have any questions regarding this presentation, you can contact Phil Feain, the Digital Technologies Curriculum Manager, at the contact details below.

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