Hello and welcome to this on–demand video on Curriculum planning for Digital Technologies 7–10.

In this video we'll be discussing how to plan for teaching and assessing the Digital Technologies Curriculum.

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In this session we'll look at the background to teaching for Digital Technologies Curriculum. Here we'll look at: Planning a lesson, Scope and sequence 7–10, Content descriptions, Elaborations, Unpacking the content descriptions, Plugged and unplugged activities, Unit plan ideas and Lesson planning. Then we'll look at the background to assessing the Digital Technologies Curriculum. This will include the: Achievement standards, Assessing student work and Connections between the content descriptions and the achievement standards.

Now we'll look at the background to teaching the Digital Technologies Curriculum at 7–10.

Planning a lesson.

In planning a lesson, the best place to start is the Digital Technologies Curriculum. You need to determine what needs to be taught using the content descriptions. You can develop ideas for activities by referring to the: Elaborations, Unpacking the content descriptions resources and Unit plan ideas. You should also plan for assessing student learning using the achievement standards.

The Digital Technologies Curriculum is outlined in the scope and sequence chart. The scope and sequence chart shows the learning continuum from Foundation to Level 10. It displays the content descriptions in their bands. Below the strands with the content descriptions are the achievement standards.

Content descriptions state the content that should be taught to students. They can be taught individually or they can be taught as part of a wider unit with other content descriptions.

Linked to the content descriptions are the elaborations. Elaborations include a list of statements. These can be used as a guide towards teaching content within the content descriptions. They are not meant to be prescriptive and teachers don't have to use any of them.

The first resource to look at when considering developing teaching and learning activities is the Unpacking the Content Descriptions resource. The purpose of this resource is: to unpack the content descriptions by showing how they relate to achievement standards, suggestions as to what lessons could focus on and some sample activities. These are available for half the content descriptions and are across all bands and strands.

The next resource to look at is Plugged activities and Unplugged activities.

Plugged activities require students to use digital systems including hardware and software or the internet. Unplugged activities do not require students to use digital systems or the internet.

Here we have an example of some unplugged activities for the Creating Digital Solutions strand at Levels 7 and 8. Suggested activities could involve students using pencil and paper when designing a user interface and storyboards for a computer game or designing algorithms by hand that include decisions and repetition. These algorithms could be written using pencil and paper.

Here we have an example of some plugged activities for the Digital Systems strand at Levels 9 and 10. Suggested activities could involve using software tools such as Visio to create a network diagram or conducting research online to compare the similarities and differences between two operating systems.

The next resource to look at is the Unit plan ideas. The purpose of this resource is to show what a unit of work could look like. This resource includes units of work across all strands and bands. They provide a sequence of lessons and assessment ideas.

Each unit plan idea includes an extract from the relevant achievement standard. They state the strand and list the relevant content descriptions. And they provide ideas for the delivery of the unit. In this case, the unit plan idea is based on 3 by 45 minute lessons per week over 9 weeks. Then we have activities for Week 1 whereby students will be decomposing problems. In Week 2 students design the user experience and in Week 3 students will design algorithms. In Weeks 4 to 8 students will develop modular programmes. And in Week 9 students will evaluate their solutions.

The next section of the Unit plan idea involves ideas for assessment activities. This section provides a range of possible assessment activities for different types of assessment. On this slide we have a pretest and activities for decomposing problems. Here we have assessment activities for designing the user experience and designing algorithms. And finally here we have assessment activities for developing modular programmes and evaluating student developed solutions.

Another consideration is lesson planning. When planning a lesson it is important to understand where the lesson fits with the sequence of lessons for the unit. In this example we have a lesson on control structures as part of a wider unit on algorithms. The lesson intention is fairly straightforward. By the end of the lesson we want students to explain how control structures are used in algorithms and programming.

Lesson planning could involve several activities such as a warm up activity, an introduction and activities for students to work on.

Now we'll look at the background to assessing the Digital Technologies Curriculum at 7–10.

These are the achievement standards for Levels 7–10. The first paragraph represents what students need to achieve in the Digital Systems strand. The second paragraph represents what students need to achieve in the Data and Information strand. And the third paragraph represents what students need to achieve in the Creating Digital Solutions strand.

This diagram shows the connection between the Levels 9 and 10 content descriptions and the related achievement standard. Sometimes one content description links to one part of the achievement standard and sometimes a group of content descriptions link to the same part of the achievement standard.

Achievement standards. Represent the student's level of achievement, are what the students should be able to demonstrate, are an indication of where the student should be on the learning continuum. It is important to note that the achievement standards are not the same as the content descriptions.

A couple of points to consider when assessing student work: assessment tasks need to relate to the content taught, assessment tasks need to account for the different levels of achievement, achievement standards should be considered above and below the target level, assessment tasks should be written in a language that the students can understand and an assessment rubric or marking scheme should be shared with students.

In wrapping up this video it is worthwhile to review what we have covered. We have looked at the background to teaching the Digital Technologies Curriculum. We have covered: Planning a lesson, Scope and sequence 7–10, Content descriptions, Elaborations, Unpacking the content descriptions, Plugged and unplugged activities, Unit plan ideas and Lesson planning. We've also explored assessing the Digital Technologies Curriculum by looking at the: Achievement standards, Assessing student work and the Connections between the content descriptions and the achievement standards.

Thank you for watching this video today. If you have any questions regarding the Digital Technologies Curriculum, you can contact the Curriculum Manager for Digital Technologies, Phil Feain, at the email address and phone number shown.

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