**Ways of Teaching – Technologies Transcript**

...‘Music’...

Narrator: Technologies is comprised of two subjects; Design and Technologies and Digital Technologies. The content is presented through the interrelated strands of *Knowledge and Understanding* and *Processes and Production Skills*. The strands are different in each subject, with common threads to allow for integration between the Technologies subjects.

In Design and Technologies, students learn about technologies and societies through different Technology contexts. In each year, students will be given opportunities to create Design solutions in at least one of the Technology contents.

Engineering principles and systems. In this context the focus is on how forces can be used to create light, sound, heat, movement, control or support in systems.

Teacher 1: We’re gonna design our buildings and we’re gonna make sure, we’re gonna replicate what would happen if an earthquake happens and we’re gonna see if your building can stand up to an earthquake.

Narrator: Food and fibre production. In this context the focus is on the process of producing food or fibre as natural materials for the design and development of a range of products.

Student 1: We have kale, and rhubarb, and they grow here because it’s good climate in this area so it will grow fast and it will grow good.

Narrator: Food specialisations. In this context, the focus is on the application of nutrition principles and knowledge about the characteristics and properties of food to food selection, preparation and contemporary technology-related food issues.

Teacher 2: In terms of nutrition, what we’re aiming to do is provide our students with a life-long knowledge of making excellent choices in terms of their health.

Teacher 3: Who’s cracked an egg before? Who … who thinks they can show me?

Student 2: Me.

Teacher 3: Yep, go ahead, go for it.

Student 2: So.

Teacher 3: Beautiful.

Student 2: Thanks.

Teacher 3: So you see how he did that? He tapped it, it cracked and then in … he put his thumbs in the crack to pull the shell apart to go straight into the bowl.

Narrator: Materials and technologies specialisations. In this context, the focus is on a broad range of traditional, contemporary and emerging materials, and specialist areas, that typically involve extensive use of technologies. This includes materials such as: textiles, metal, wood and plastics.

Teacher 4: What are some of the things that we need to make sure of before we start cutting out our, um, pattern? What do we need to do?

Student 3: Um make sure it’s all flat.

Teacher 4: Yep.

Student 3: And there’s no bumps and bubbles in it.

Teacher 4: Yeah, so we need to make sure our material is flat.

Teacher 5: Here’s the jarrah that we have from Western Australia. Can you tell me where are the situations where we would use jarrah?

Student 4: For boats and for floors.

Teacher 5: What would we use it in boats, do you think?

Student 4: Ah, so it, ‘cause the wood doesn’t swell when it gets wet.

Teacher 5: That’s excellent.

Narrator: In Digital Technologies, students develop an understanding of the characteristics of data, digital systems, audiences, procedures and develop computational thinking. They apply this when they investigate, communicate and create digital solutions.

Student 5: We have groups and we work together. We do the algorithms and then so like the directions and all that, we get that right and then we put it on to the iPad and then it programs to the Sphero. So, yeah, it’s really cool.

Narrator: Under the umbrella of project management, students develop their design, computational and system thinking. Within the Technologies curriculum, teachers can develop their programs so that students are moving between evaluating, designing, investigating and defining, producing and implementing, and collaborating and managing. The students can move between all these elements, without boundaries, in order to create an effective solution to a problem.

Teacher 4: So, what sort of fabric do we have here?

Student 6: Ah, rayon.

Teacher 4: So why did you choose that?

Student 6: Um, it just moves really well and it fits well.

Teacher 4: Yep.

Teacher 5: It’s that evaluation stage that then allows them to say ‘okay if I was to ask you to do this again within the constraints of the same brief, what would you do differently now knowing the resources that are available, the materials that you have available to you, the machinery and your ability to … to use that machinery well, how would you make that different?’ So it … it sort of stacks up … it is a … it is a cyclical process but it … it’s almost a helical cyclical process.

Teacher 1: Okay, who enjoyed it?

Students: Me.

Teacher 1: Beautiful. Okay, more to the point instead of ‘who enjoyed it’, who learnt something from today?

Student 7: We shouldn’t use too much of it, because as it gets higher and higher it gets more less strong.

Teacher 1: Beautiful.

Teacher 7: Technologies is not just about happening in a classroom, it can happen in … in other curriculum areas and it can enhance other areas as well.

… ‘Music’…

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