


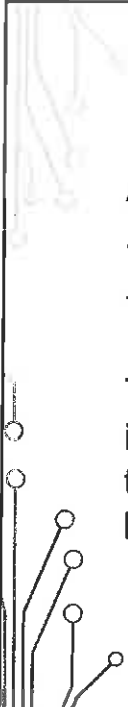
Digital Learning and Teaching
Victoria

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**16OL210 Modifying Digital Technologies for
students with learning disabilities**

Tuesday, 24 May – 4:00pm – 5:00pm

Presenter: Clark Burt



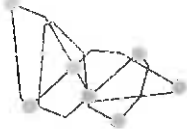
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ABSTRACT:

The new Technologies learning area is truly a dedicated focus to teaching 21st century digital thinking skills in students.

This webinar will explain the new Technologies learning area as it relates to levels A-D and F-3 and how a teacher can modify the Victorian Curriculum to accommodate students who are learning at these levels.

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INTENDED AUDIENCE:

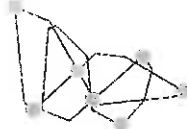
Primary and Special School educators who need to modify their curriculum to accommodate students with special needs.

LEARNING GOALS:

Brief review of...

- the new Digital Technologies Curriculum
- levels A – D
- modifying the curriculum for students with special needs
- classroom examples

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THE PRESENTER:

Clark Burt:

- is a teacher at Ashwood School
- is working with the department in the area of Digital Technologies
- is also a committee member of the Australian Association of Special Education Victorian Chapter
- is undertaking his PhD in games-based learning for students with intellectual difficulties
- is contactable at <http://www.clarkburt.com> and you can follow him via twitter @clarkburt

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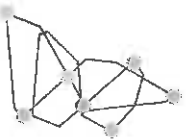


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DIGITAL TECHNOLOGIES CURRICULUM:

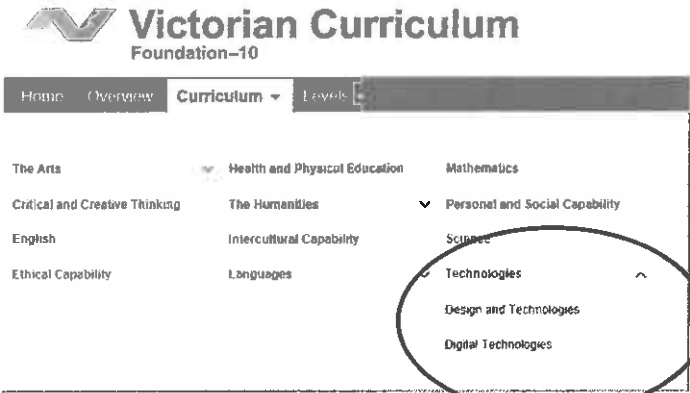
- The Victorian Curriculum: Digital Technologies will need to be implemented into all Victorian schools by 2017
- ICT general capabilities is now integrated with the other learning areas and teachers need to be aware of the new teaching expectations
- The new Technologies curriculum is focused on digital thinking and solutions
- Up to 50 per cent of the curriculum can be learned 'unplugged' (no digital device)

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THE TECHNOLOGIES CURRICULUM:



Victorian Curriculum
Foundation–10

Home Overview **Curriculum** Levels

The Arts	Health and Physical Education	Mathematics
Critical and Creative Thinking	The Humanities	Personal and Social Capability
English	Intercultural Capability	Science
Ethical Capability	Languages	Technologies
		Design and Technologies
		Digital Technologies

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Victorian Curriculum
Foundation-10

VICTORIAN CURRICULUM AND ASSESSMENT AUTHORITY

home Overview Curriculum Levels Download

Technologies

About the Technologies [Print this page](#)

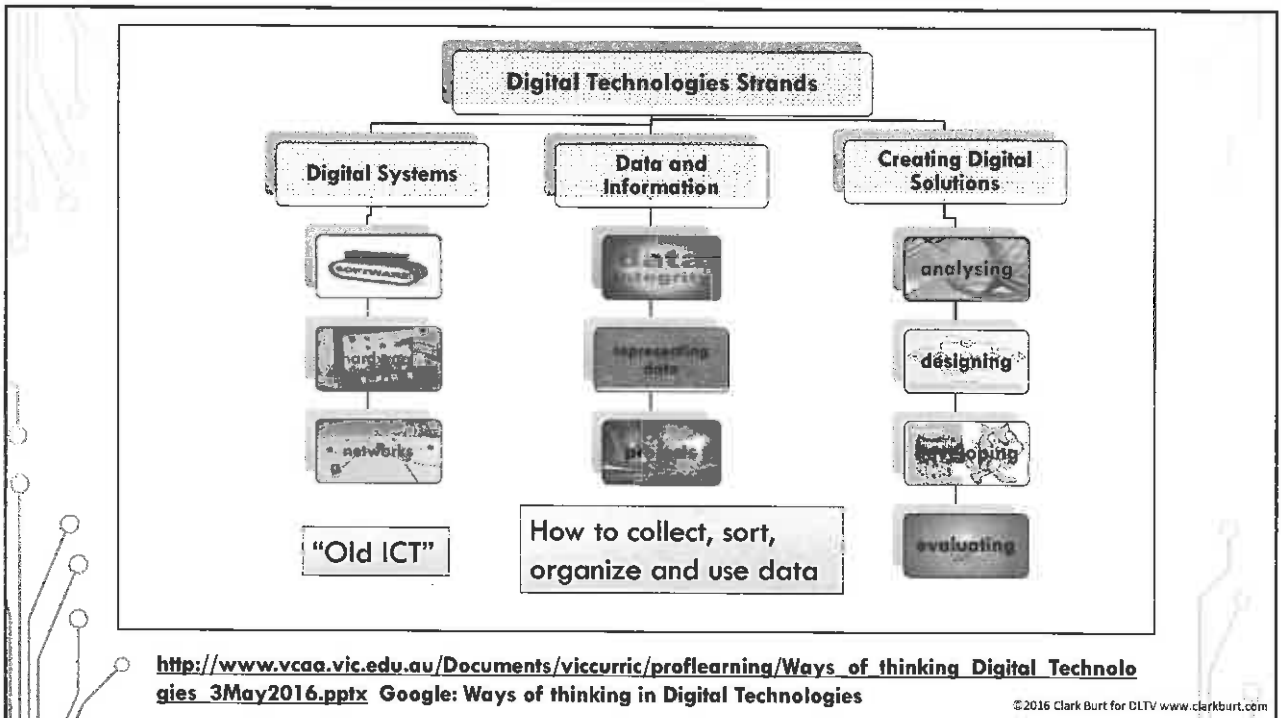
Design and Technologies
In the Victorian Curriculum F-10, the Technologies includes Design and Technology and Digital Technologies

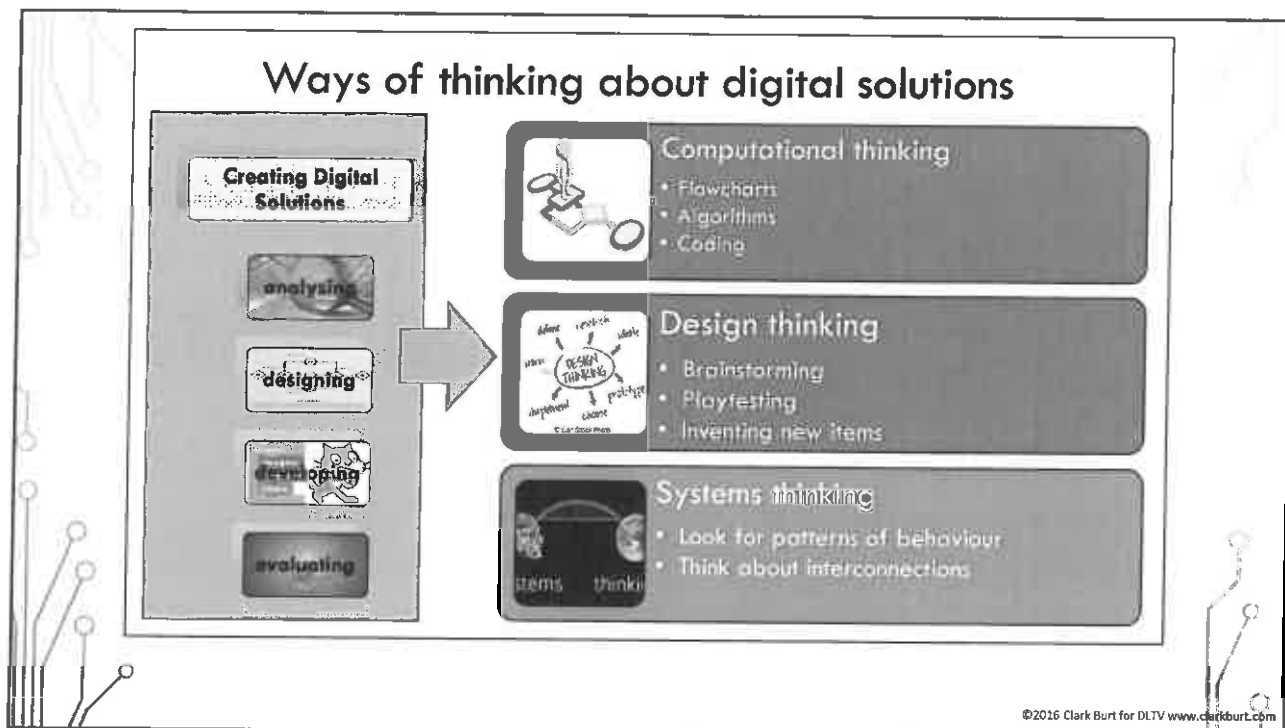
Digital Technologies
The Technologies provide a framework for students to learn how to use technologies to create innovative solutions that meet current and future needs. Students are encouraged to make decisions about the development and use of technologies, considering the impacts of technological change and how technologies may contribute to a sustainable future. The curriculum provides practical opportunities for students to be users, designers and producers of new technologies

In Design and Technologies, students use design thinking and technologies to generate and produce designed solutions. In Digital Technologies, students use computational thinking and information systems to analyse, design and develop digital solutions

<http://www.vcaa.vic.edu.au/>

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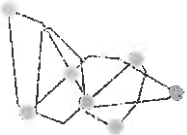
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LEVELS A – D (PRE-FOUNDATION)

Level A	Level B	Level C	Level D
Pre-intentional (Reaction)	Cause and effect activities	First signs of independence	Cooperate in a group
Choice making usually from a field of two	Choice making from a field of three	Choice making from four	Express feelings and Recount Experiences
Intrinsic motivation	Matching real objects	Participate with others	Start reflecting on own behaviour
Gaze, touch hit, pat, smile	Matching, scan, manipulate	Use, identify, sequence	Collect, sort, represent

https://www.eduweb.vic.gov.au/edulibrary/public/stuman/wellbeing/ABLES/ABLES_Introductory_Guide.pdf or Google: What is ABLES?

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Levels 9 and 10

Levels 9 and 10 Description
In Levels 9 and 10, students apply systems thinking skills when considering how human interaction with networked systems introduces complexities surrounding access to, and the security of, data.

Show more

Levels 9 and 10 Content Descriptions

Digital Systems
Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems (VCDTDS045)

Data and Information

Analyze simple compression of data and how content data are separated from presentation (VCDTDS046)

Develop techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, considering privacy and security requirements (VCDTDS047)

Analyze and visualize data to create information and address complex problems, and model processes, entities and their relationships using structured data (VCDTDS048)

Manage and collaboratively create interactive solutions for sharing ideas and information online, taking into account social contexts and legal responsibilities (VCDTDS049)

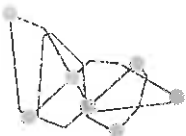
Creating Digital Solutions

Define and decompose real-world problems, generate

MODIFYING THE CURRICULUM:

Use content from their age level but modify it to use tasks from their academic level

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MODIFYING THE CURRICULUM EXAMPLE:

Year 9 Students working at ABLES level D

Digital Systems
Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems (VCDTDS045)

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The screenshot shows a web page from vcaa.vic.edu.au with a navigation menu and filters. The main content is split into two columns for Level C and Level D. Level C is for students with disabilities and includes descriptions for Digital Systems, Data and Information, and Creating Digital Solutions. Level D is also for students with disabilities and includes similar descriptions. The page includes a copyright notice for Clark Burt for DLTV.

Level C (students with disabilities)
Level C Description
 In Level C, students intentionally participate in learning experiences and respond more consistently to prompts and simple clear directions from the teacher to support them to learn. They will...
 Show more

Level C Content Descriptions

Digital Systems
 Initiate some basic functions on common digital systems (hardware and software components) to meet a purpose (VCDTDS010)

Data and Information
 Collect, sort and recognise simple patterns in data, and assist with the use of digital systems to represent data as pictures and symbols (VCDTDS011)

Creating Digital Solutions
 Follow, and with assistance, represent a sequence of steps and decisions (algorithms) needed to solve simple problems (VCDTDS012)

Level D (students with disabilities)
Level D Description
 In Level D, students are building their independence and participating cooperatively in group learning activities. They combine and sequence key words and images to communicate personal interest...
 Show more

Level D Content Descriptions

Digital Systems
 Carry out some key functions on digital systems (hardware and software components) to meet a purpose (VCDTDS010)

Data and Information
 Collect, sort, and recognise, with assistance, different types of patterns in data, and use digital systems to represent data as pictures, symbols and diagrams (VCDTDS011)

Creating Digital Solutions
 Follow and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (VCDTDS012)

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This box summarizes the Year 9 Digital Systems unit, the Level D Content Descriptions for Digital Systems, and a lesson plan. It includes a copyright notice for Clark Burt for DLTV.

Year 9 Digital Systems
 Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems (VCDTDS045)

Level D Content Descriptions
Digital Systems
 Carry out some key functions on digital systems (hardware and software components) to meet a purpose (VCDTDS010)

My lesson: Discuss “Why we have passwords”, “What is a strong password?” and “Passphrases”
 Then students create their own passphrase: (e.g. 18pizza@home)

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Levels 9 and 10


Levels 9 and 10 Description
 In Levels 9 and 10, students apply systems thinking skills when considering how human interaction with networked systems introduces complexities, interconnects access in, and the security.

Levels 9 and 10 Content Descriptions

Digital Systems
 Investigate the role of hardware and software in managing, organising and securing the movement of and access to data in networked digital systems.

Data and Information
 Analyse simple compression of data and how content data are separated from presentation (VCDTD1011)
 Develop techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, considering privacy and security requirements (VCDTD1012)
 Analyse and summarise data to create diagrams and address complex problems, and model processes, entities and their relationships using structured data (VCDTD1013)
 Manage and collaboratively create iterative solutions for sharing ideas and information online, taking into account social contexts and legal responsibilities (VCDTD1014)

Creating Digital Solutions
 Design and develop processes to solve problems creatively.



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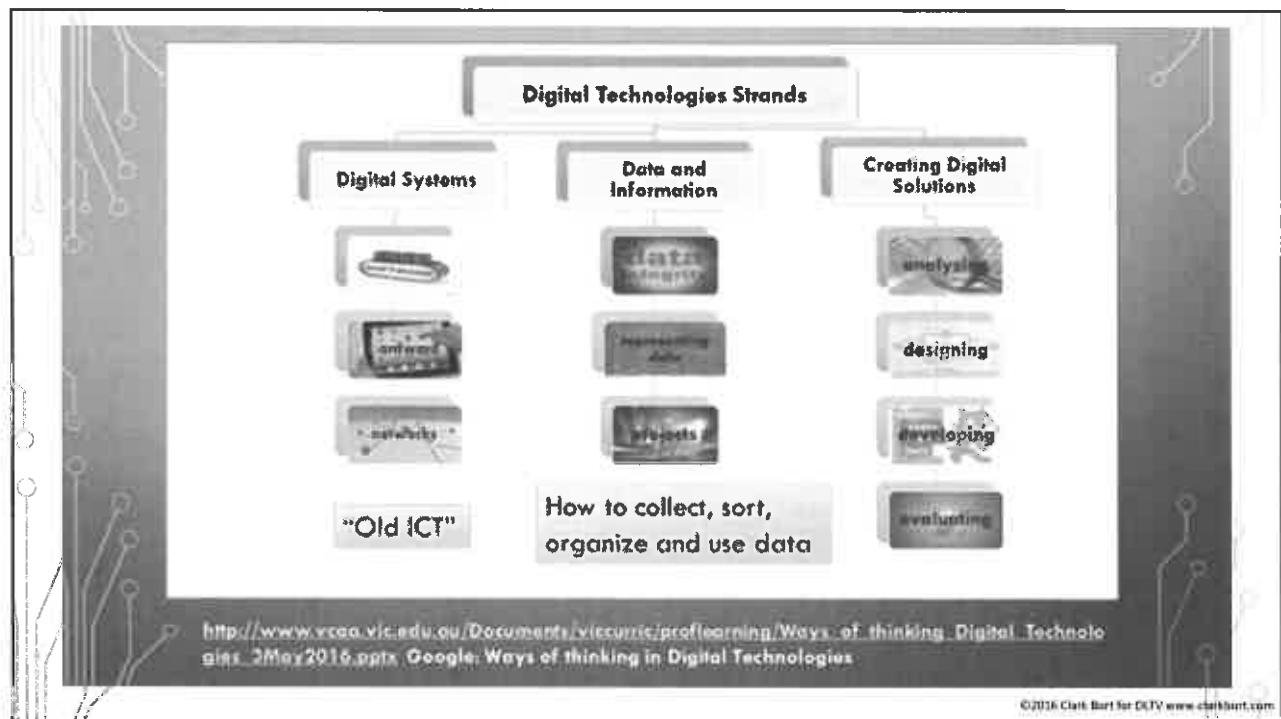
MODIFYING THE CURRICULUM:

If you cannot use any of the content descriptors, then just use the A-D curriculum

Data and information

Collect, sort, and recognise, with assistance, different types of patterns in data, and use digital systems to represent data as pictures, symbols and diagrams (VCDTD1011)

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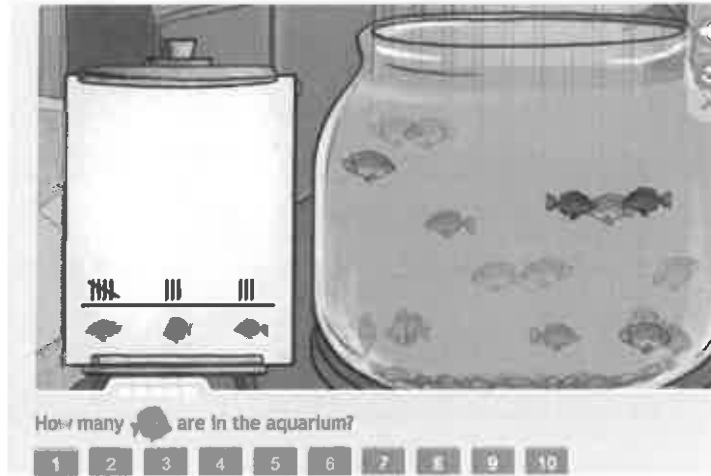


Data and Information

Level D:

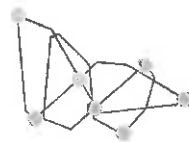
Collect, sort, and recognise, with assistance, different types of patterns in data, and use digital systems to represent data as pictures, symbols and diagrams (VCDTDI011)

Maths game: Graph and Release - Tally Marks



<https://www.matific.com/au/en-au/activity/FishTankGraphingTally>

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CREATING DIGITAL SOLUTIONS

How do we teach 21st century thinking?

Example 1:

Creating Digital Solutions

Level D:

Follow and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (VCDTCD012)

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Lower ability activity: Sequencing worksheets

PSQJ

Directions: Read the sentences, which are out of order. Cut out the sentences and glue them into the correct order so the story makes sense.

- Next, spread jelly on the other slice.
- First, take two pieces of bread.
- Finally, take a big bite out of your sandwich!
- Then, spread peanut butter on one slice.
- Then, put the two pieces of bread together.



<https://www.havefunteaching.com/tag/free-sequencing-worksheets/>

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Example 2: higher ability activity: Cartwright Reading-specific flexibility of categorisation among multiple dimensions



Data and Information Foundation – Level 2
Recognise and explore patterns in data and represent data as pictures, symbols and diagrams
(VCDTDI014)

Cartwright, K. B. (2002). Cognitive development and reading: The relation of reading-specific multiple classification skill to reading comprehension in elementary school children. *Journal of Educational Psychology*, 94(1), 56.

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IN REVIEW:

- the new Digital Technologies Curriculum
- levels A – D
- modifying the curriculum for students with special needs
- classroom examples

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RESOURCES:

- VCAA Website Digital Technologies Curriculum
- <http://victoriancurriculum.vcaa.vic.edu.au/technologies/digital-technologies/introduction/rationale-and-aims>
- VCAA Website Digital Technologies More Information
- <http://www.vcaa.vic.edu.au/Pages/foundation10/viccurriculum/digitech/digitech.aspx>
- PowerPoint on Digital Technologies
<http://www.vcaa.vic.edu.au/Documents/viccurric/digitech/DigitalTechnologies.pptx>

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RESOURCES:

- VCAA Website on Digital Technologies Scope & Sequence
<http://victoriancurriculum.vcaa.vic.edu.au/technologies/digital-technologies/introduction/scope-and-sequence>
- Introductory Guide to ABLES A-D Curriculum
[https://www.eduweb.vic.gov.au/edulibrary/public/stuman/wellbeing/ABLES/ABLES Introductory Guide.pdf](https://www.eduweb.vic.gov.au/edulibrary/public/stuman/wellbeing/ABLES/ABLES%20Introductory%20Guide.pdf)
- VCAA Website on Digital Technologies Scope & Sequence Level A
<http://victoriancurriculum.vcaa.vic.edu.au/technologies/digital-technologies/curriculum/f-10#level=A>

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DIGITAL LITERACY

Kerry Woods & Emily White from The University of Melbourne are working on ABLES Digital Literacy assessment.



Education and Training



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AUSTRALIAN ASSOCIATION OF SPECIAL EDUCATION




AUSTRALIAN ASSOCIATION OF SPECIAL EDUCATION
AND PRINCIPALS' ASSOCIATION OF SPECIALIST SCHOOLS
2016 JOINT NATIONAL CONFERENCE

8th - 10th JUNE 2016 | CROWN PROMENADE MELBOURNE, VICTORIA

MAASE, PASC2016

<http://www.aaseconference.com.au/>

DIGICON16 BY DLTV




DIGICON
The annual conference of Digital Learning and Teaching Victoria
JULY 19 & 20
MELBOURNE - SWINBURNE UNIVERSITY OF TECHNOLOGY

<http://digicon.vic.edu.au/>

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What's coming up at DLTV?



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16OL209 VCE Computing – On the go!
Thursday, 26 May – 5:30pm – 7:00pm

16OL204 Starting points for the first term of DigiTech activities (Secondary)
Thursday, 2 June – 5:30pm – 7:00pm

16OL207 Everybody Dance NAO Choreographe Workshop
Thursday, 9 June – 5:30pm – 7:00pm

16OL206 Coding in the Classroom
Thursday, 16 June – 5:30pm – 7:00pm

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**16OL208 Understanding the Achievement Standards of
Digital Technologies and Quick Wins 9-10**

Thursday, 23 June – 5:30pm – 7:00pm

Everybody Dance NAO robot dance competition starts 11 July
for teams of students to create a dance program for a NAO
robot. Submission are due by 5pm on 12 August

DigiCon 2016

The annual DLTV conference at Swinburne University
Hawthorn Campus
Tuesday, 19 & Wednesday, 20 July

**16F2F301 Making the most of the Adobe Creative Cloud in
your classroom**

Tuesday, 26 July – 2:00pm – 6:00pm
Adobe HQ, St Kilda Rd, Melbourne

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Contact DLTV

If you would like to be a presenter for DLTV about implementing the Digi
Tech curriculum, contact the office:

E: office@dltv.vic.edu.au

P: 9349 3733

<https://docs.google.com/a/dltv.vic.edu.au/forms/d/12MS0THCpfCnpo9ExFzkSc-zLs-1vp66ooVN6KkOnZzs/viewform>

If DLTV Members would like the presentation recording or certificate of
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