GET MORE FROM CODE.ORG

DIGICON 2019

FEEDBACK

- https://forms.gle/GUkrqHXmL4ziR7Q97

COMPUTER SCIENCE IS CHANGING EVERYTHING

- https://www.youtube.com/watch?v=xJqSu1IbcHg&list=PLzdnOPI1iJNfpD8i4Sx7U0y2MccnrNZuP&index=2&disable_polymer=true
- Get Inspired playlist

SESSION GOAL

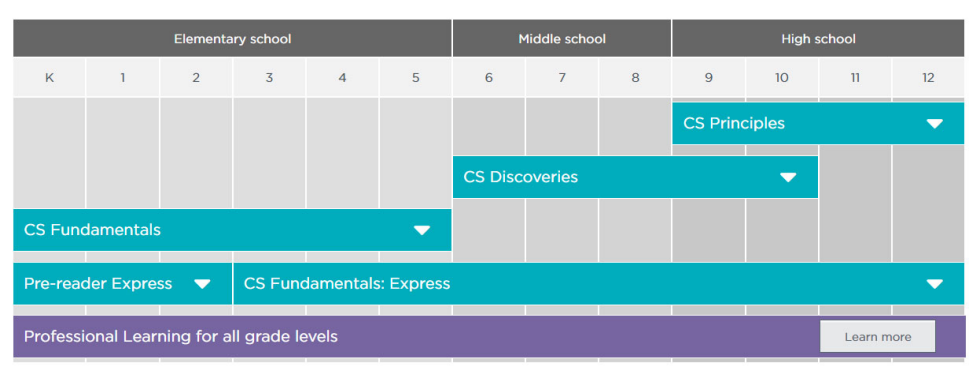
- Take a tour through some key parts of the code.org offering
- Get more value from existing usage or find ways to add-in to existing programs
- Share case studies, ideas, etc.
- => Demo

- Who is current using?
- Who is (not) considering using?
- For which grades?

NICE TO MEET YOU

- myuan@Fintona.vic.edu.au
- Core DigiTech program years 5-8, with electives year 9-10
- A bit about me ….

TEACH



CODING

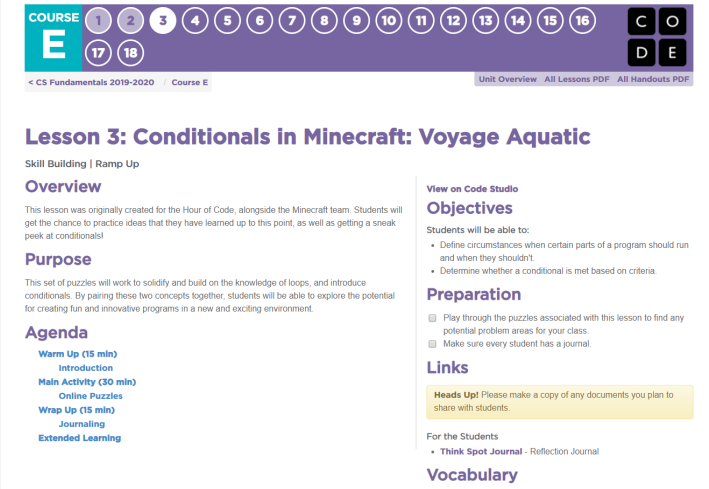
COURSES

- CS Fundamentals
  - Courses A-F
  - Courses 1-4
- CS Discoveries
  - Web Development
  - Animation & Games
  - Physical Computing
- CS Principles
  - Intro to Programming
  - Building Apps

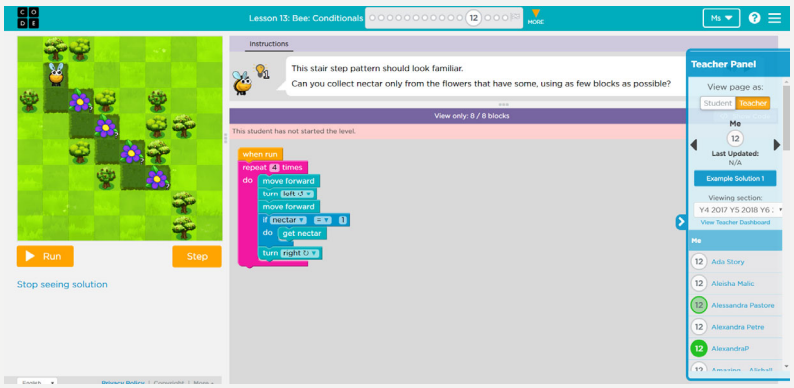
ADMIN FEATURES

Y7 2017 Y8 2018 Y9 COD1A 2019	9	Computer Science Principles ('18-'19) Current unit: CSP Unit 3 - Intro to Programming ('18-'19)	64	YCNDQL	⌄
Y6 2017 Y7 2018 Y8 2019	8	Computer Science Discoveries ('17-'18) Current unit: CSD Unit 3 - Animations and Games ('17-'18)	79	DRMHNL	⌄
Y5 2017 Y6 2018 Y7 2019	7	Computer Science Discoveries ('17-'18) Current unit: CSD Unit 3 - Animations and Games ('17-'18)	62	MPMNTZ	⌄
Y4 2017 Y5 2018 Y6 2019	6	Course 2	50	QTRRZP	⌄

CURRICULUM MATERIALS

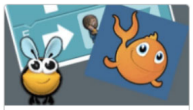


SOLUTIONS



CS FUNDAMENTALS (K-5)

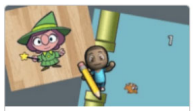
Kindergarten	1st Grade	2nd Grade	3rd Grade	4th Grade	5th Grade
Course A	Course B	Course C	Course D	Course E	Course F
Pre-Reader Express Course		Express Course			



Course 1

Introduction to computer science for early readers.

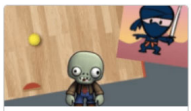
Ages 4-6



Course 2

Introduction to computer science for students who can read.

Ages 6+ (reading required)



Course 3

Delve even deeper into programming while building games and interactive stories. This is a follow-up to Course 2.

Ages 8-18

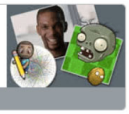
Course 4

Build more complex programs with concepts such as for loops and functions with parameters. This is a follow-up to Course 3.

Ages 9-18

Accelerated Course

Learn basic computer science in an accelerated version of courses 2-4.



Ages 10-18

KEY POINTS

- Videos
- "Ask 3 then me"
- "Rubber ducking"

CS DISCOVERIES (6-8)

- Web Development
  - Khan Academy Intro to HTML/ CSS Making webpages
- Animation & Games – pathway direct from CSF (GameLab)
  - Khan Academy Intro to JS Drawing & Animation; Advanced JS
- Physical Computing
  - Adafruit Circuit Playground

CS PRINCIPLES (9-12)

- Intro to Programming
- Building Apps (AppLab)

- AP course https://apcentral.collegeboard.org/about-ap/ap-a-glance
  - The Advanced Placement Program® (AP) enables willing and academically prepared students to pursue college-level studies while still in high school. The program consists of college-level courses developed by the AP Program that high schools can choose to offer, and corresponding exams that are administered once a year.

DIGITAL SYSTEMS

THROUGHLINES

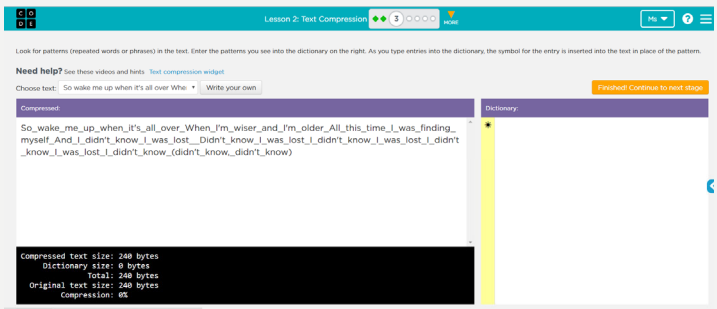
CS Fundamentals	CS Discoveries	CS Principles
Binary Bracelets (3) Binary Images (4)	Data & Society (5) - ASCII - Binary - Images - Numbers - Encryption	The Internet (1) - Representing and Transmitting Information Digital Information (2) - Bytes & File sizes - Text compression - BW Images - Colour Images - Lossy vs Lossless compression
Internet (3)	Problem Solving & Computing (1) - What is a Computer - Input and Output - Processing - Apps and Storage	The Internet (1) - Inventing the Internet

VIDEOS

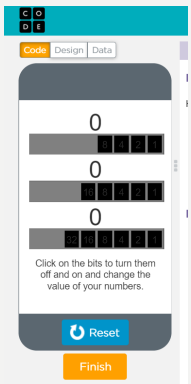
- How Computers Work
  - https://www.youtube.com/playlist?list=PLzdnOPI1iJNcsRwJhvksEo1tJqjlqWbN-
- How the Internet Works
  - https://www.youtube.com/playlist?list=PLzdnOPI1iJNfMRZm5DDxco3UdsFegvuB7

WIDGETS

TEXT COMPRESSION



BINARY

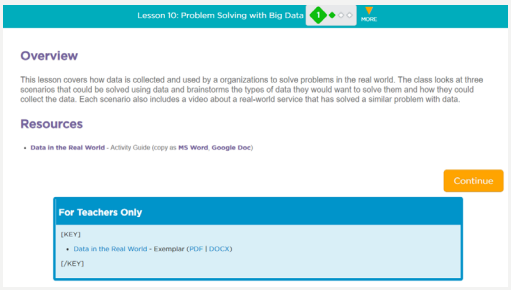


DATA

THROUGHLINES

CS Discoveries	CS Principles
Data & Society (5) - Problem Solving & Data - Big Data - Structuring Data - Making Decisions with Data - Interpreting Data - Automating Data Decisions	Big Data & Privacy (4) - Big Data - Vizualisations - Data Innovations - Identifying People - The Cost of Free - Encryption - Cybercrime

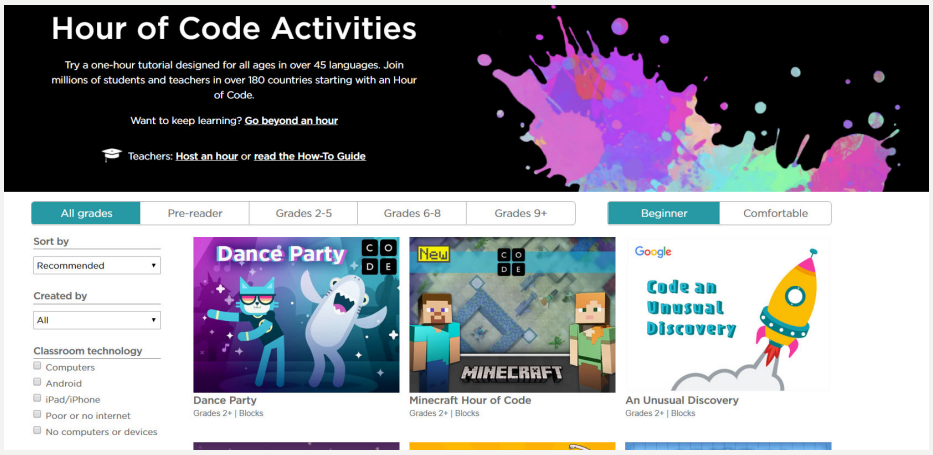
RESOURCES



BUT ALSO

HOUR OF CODE

https://code.org/hourofcode/overview
https://hourofcode.com/au



THE END