

Weblinks

Chapter 1

Page 11

How a CPU is made

Watch the video 'How a CPU is made'.

On YouTube:

<https://youtu.be/qm67wbB5Gml>

Or without ads or public comments:

<https://archive.org/details/SandToSilicon>

Chapter 2

Page 31

Activity: Colouring by numbers

Watch the code.org videos and then use the widgets to complete the activity.

Intro to the B & W Pixelation Widget

<https://www.youtube.com/watch?v=rJOa5Q5a1WM>

Intro to the Color Pixelation Widget – Part 1

https://www.youtube.com/watch?v=763E3_Z6Hng

Intro to the Color Pixelation Widget – Part 2

<https://www.youtube.com/watch?v=xK9z51Tin4E>

Intro to the Color Pixelation Widget – Part 3

<https://www.youtube.com/watch?v=Xhqz3ffGm74>

Widgets:

<https://studio.code.org/s/pixelation>

Chapter 3

Page 47

Code.org

<https://code.org/>

Codecademy

<https://www.codecademy.com/>

Grok Learning

<https://groklearning.com/>

Python

<https://www.python.org/downloads/>

Chapter 4

Page 54

Code.org

Watch the video ‘Wires, cables and WiFi’ produced by code.org.

<https://code.org/educate/resources/videos>

Page 60

Code.org

Watch the code.org videos ‘The Internet: Packets, routing and reliability’ and ‘The Internet: IP addresses and DNS’.

<https://code.org/educate/resources/videos>

Page 64

Web probe: Tracing a packet around the world

Use the visual trace from YouGetSignal to complete this activity.

<https://www.yougetsignal.com/tools/visual-tracert/>

Page 64

Class activity: Using an Internet simulator

Use the Internet Simulator from code.org to complete this activity.

<https://studio.code.org/s/netsim>

Chapter 10

Page 90

Arduino IDE website

www.arduino.cc

Pages 91, 97

Arduino online emulator (part of TinkerCAD)

AutoCAD has moved this excellent emulator from circuits.io to TinkerCAD and added features!

<https://www.tinkercad.com/circuits>

The following three URLs are for circuit simulations on the TinkerCad website for the Blink, pushButton and Digital_Dice projects.

Page 91

Blink

<https://www.tinkercad.com/things/g6kroeH62eK-blink/>

Page 94

pushButton

<https://www.tinkercad.com/things/cf1Dcri9RwZ-pushbutton/>

Page 95

Digital_Dice

<https://www.tinkercad.com/things/IIUbMSV1Fbx-digitaldice/>

Chapter 17

Page 126

Grok Learning

<https://groklearning.com/>

Codecademy

<https://www.codecademy.com/>

W3Schools

<https://www.w3schools.com/>

Chapter 21

Page 140

Web probe: ConCensus (ABC Splash)

<http://concensus.splash.abc.net.au/concensus-game/>

Chapter 22

Page 142

Task A:

Wordle

<http://www.wordle.net>

WordItOut

<https://worditout.com>

TagCrowd

<https://tagcrowd.com>

Tagzedo

<http://www.tagxedo.com>

Page 144

Task B:

easel.ly

<https://www.easel.ly>

infogr.am

<https://infogram.com>

piktochart

<https://create.piktochart.com>

Page 144

Task C:

Run that town

<http://runthattown.abs.gov.au>

Page 145

Task D:

20Q

<http://www.20q.net>

Page 145

Task E:

Quick, Draw!

<https://quickdraw.withgoogle.com>

Chapter 23

Page 149

Knowledge probe: Ozobot

Step 5: <http://games.ozoblockly.com/shapetracer-advanced>

Step 6: <https://blockly-games.appspot.com/maze>

Step 7: <http://ozoblockly.com/editor>

Page 149 (base)

Blockly Games

<https://blockly-games.appspot.com/>

Page 150

Skill builder: Lego Mindstorms

The 'Learn to program' section of the Lego Mindstorms website has tutorials you can watch.

<https://www.lego.com/en-us/mindstorms/learn-to-program>

Page 150

Infobit: Bricksmith (Mac only)

<http://bricksmith.sourceforge.net>

Lego Digital designer

<http://ldd.lego.com/en-au/>

Page 151

NSW University RoboCup

<https://www.engineering.unsw.edu.au/computer-science-engineering/help-resources/students/student-projects/robocup>

Chapter 25

Page 155

'Industrial' Lego washing machine

https://www.youtube.com/watch?v=jvE_JH6U-UA

Page 155

Vending machine (requires NXT 2.0 software)

Video:

<https://www.youtube.com/watch?v=CDCU-5cMijU>

Building instructions and programming:

http://ovtech.dobmeierweb.net/NXT_Projects/NXT2/vending_machine/steps.html

Highly recommended!

The EV3 creations by Jason Allemann of JKBrickworks. Check out his version of a useless box along with build and programming instructions.

<http://jkbrickworks.com/luuma-ev3/>