



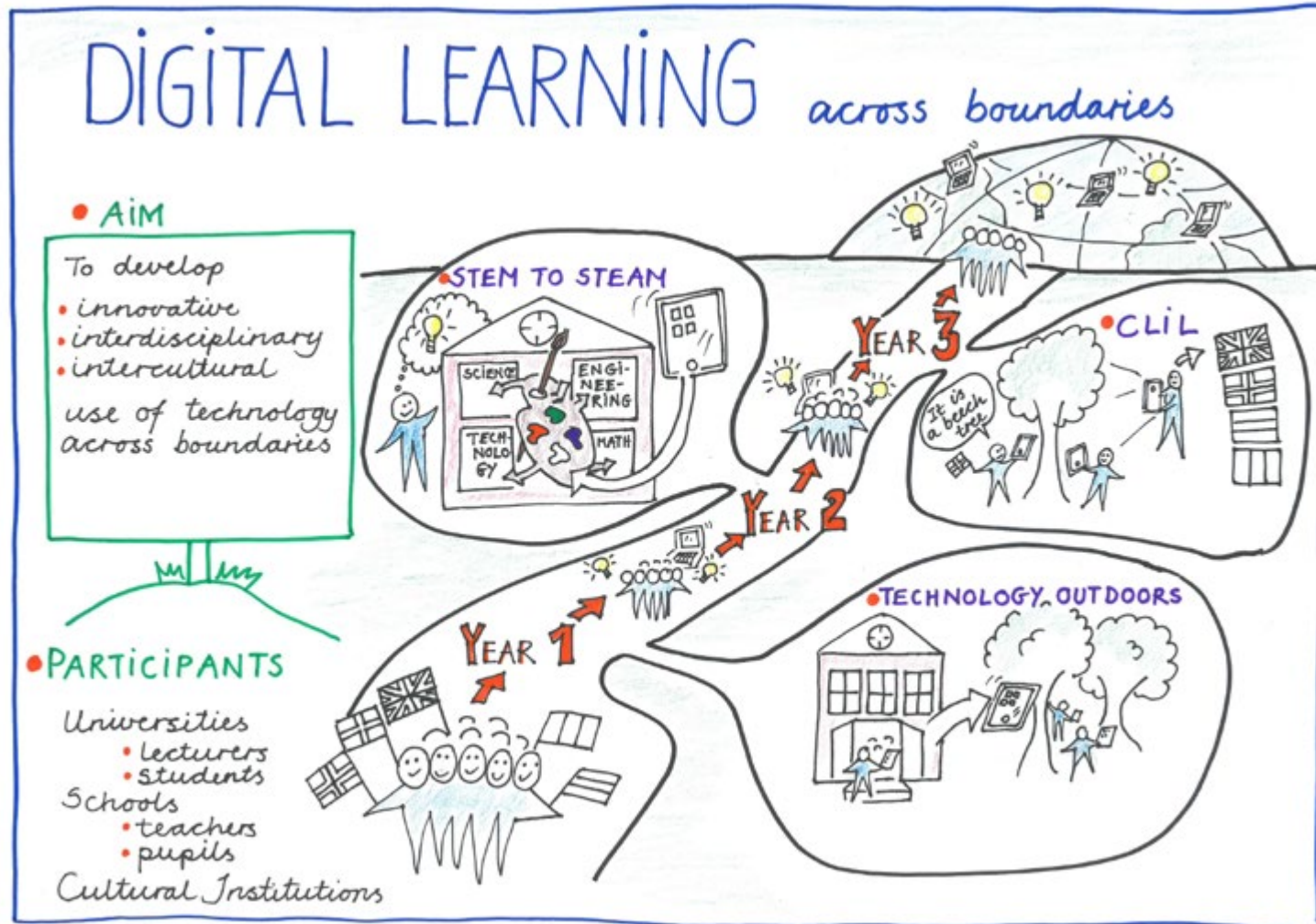
Inclusive approaches to STEAM

Technology supporting special educational needs and inclusion through Science, Technology, Engineering, Art and Maths





DLaB project



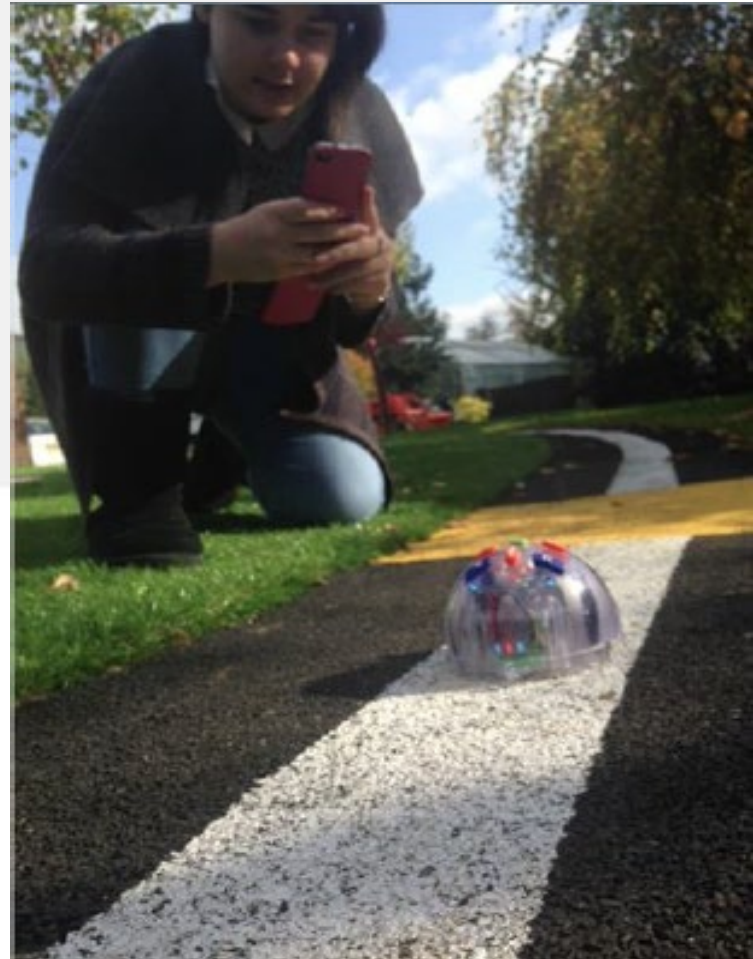


Forest School





STEM garden





Mobile learning outdoors: Wild writing





Mobile learning outdoors: Wild writing






Wild writing




My Books Pages Undo Page 2 (of 3) + ⓘ 📄



The tree fuels the air
The tree fills our body
and mind
with the soul of the
earth
the soil where we live
from

< >

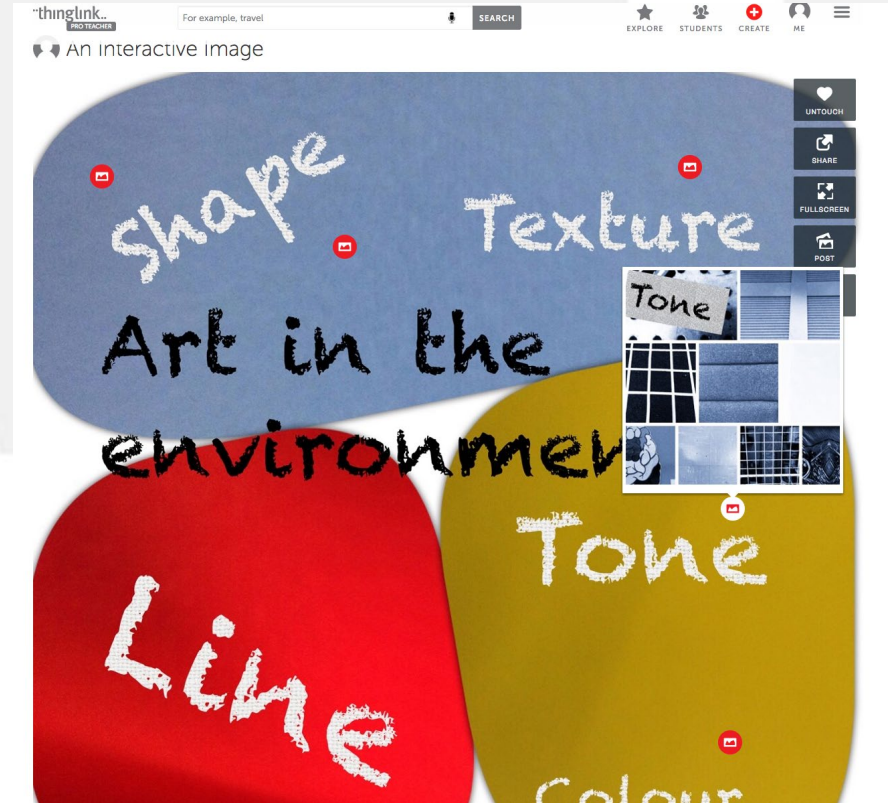
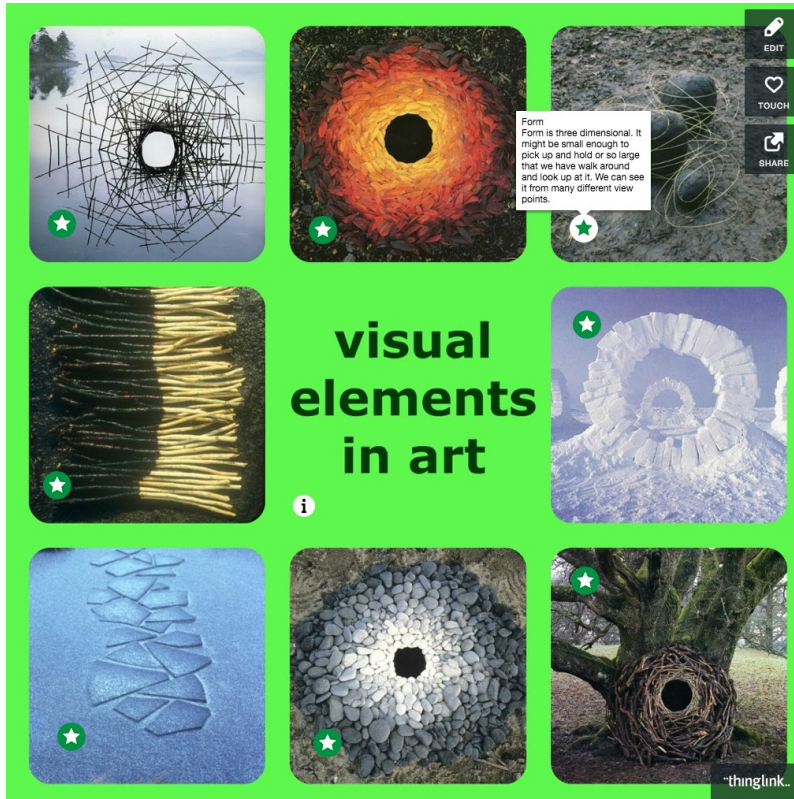
Swirling pine



...manipulating images and viewpoints



Art in the environment



<https://www.thinglink.com/scene/838166724078469121>
<https://www.thinglink.com/scene/893192555754160128>





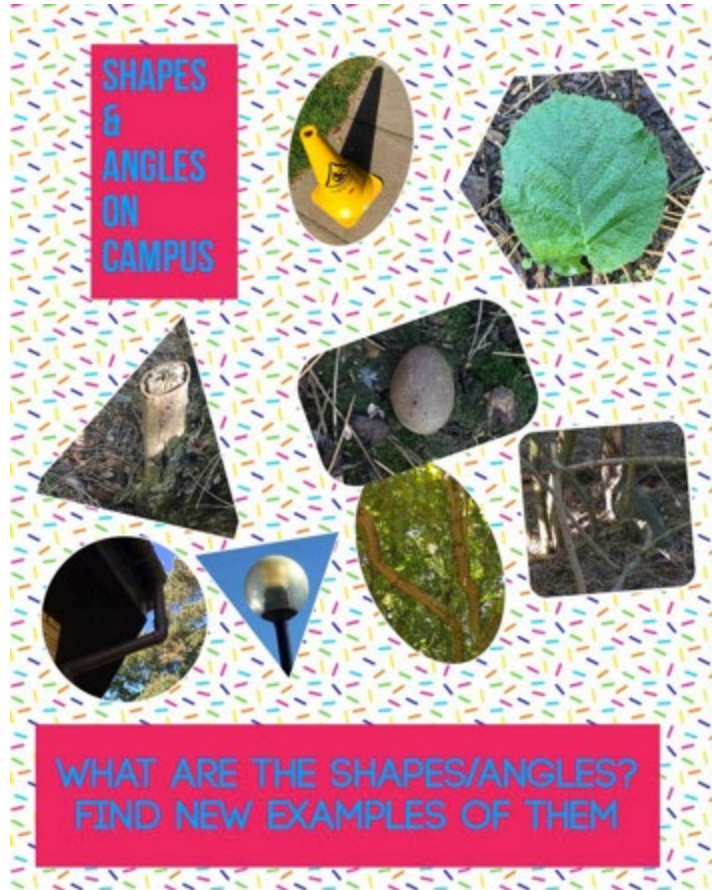
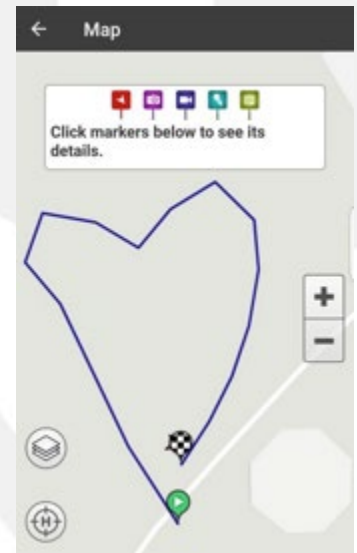
Ephemeral art



...transient art in the environment



Creating trails



...combining digital and physical exploration



Sketchbook circles

First image manipulation



Second Manipulation





Virtual sculptures





Interactive drawers





Manipulating media



...bringing the outside in



Rescue Robots





Deconstructing technology




Digital leaders and digital playdates


Helen Caldwell + 18 • 7mo

Digital Playdate

People Learning and Asking Y




My Movie
Uploaded by Helen Caldwell on 2016-07-...
youtube




The ICICTE TRAIL
Uploaded by Helen Caldwell on 2016-07-...
youtube

Can you figure out which two are the same photo?




More photos of participants!
A shared album for pictures from the workshop

New Box
Some content...




ITITCE playdate: please add!
2 new photos added to shared album
google photos

Emma's test




Creativity is...
<http://www.haikudeck.com/p/7eb48e2c23>

Book creator! A great app to use in the classroom. Make your own digital book!




Rollworld

DIGITAL COLLAGES, DIGITAL LEADERS, EXAMPLE SCHOOL PROJECTS, GREENSCREENS, PLACEMENT, STUDENT PROJECTS



STEAM
BRAMBLEWARS-A STEAM PROJECT FOR YEAR 6

PLAYDATE



DIGITAL PLAYDATE AND TEACHEET WITH INTO FILM

List of Apps for
The apps recommended are:

1. Adobe Spark
2. Book Creator
3. Greenscreen Studio
4. Haiku Deck
5. iMovie (iOS) or VidTrim on Android
6. Padlet
7. PicCollage

DIGITAL COLLAGES, DIGITAL LEADERS, PHOTOGRAPHY, STUDENT PROJECTS




DIGITAL ART WITH BILLINGBROOK SPECIAL SCHOOL

PLAYDATE



DIGITAL PLAYDATE FOR THE SYMPOSIUM NETWORK OF EUROPEAN SCHOOLS OF EDUCATION

DIGITAL LEADERS, EXAMPLE SCHOOL PROJECTS, PLACEMENT, STUDENT PROJECTS



STOP FRAME ANIMATION ON PLACEMENT

ETWINNING PROJECT



ETWINNING TEACHER TRAINING MEETING IN BRUSSELS



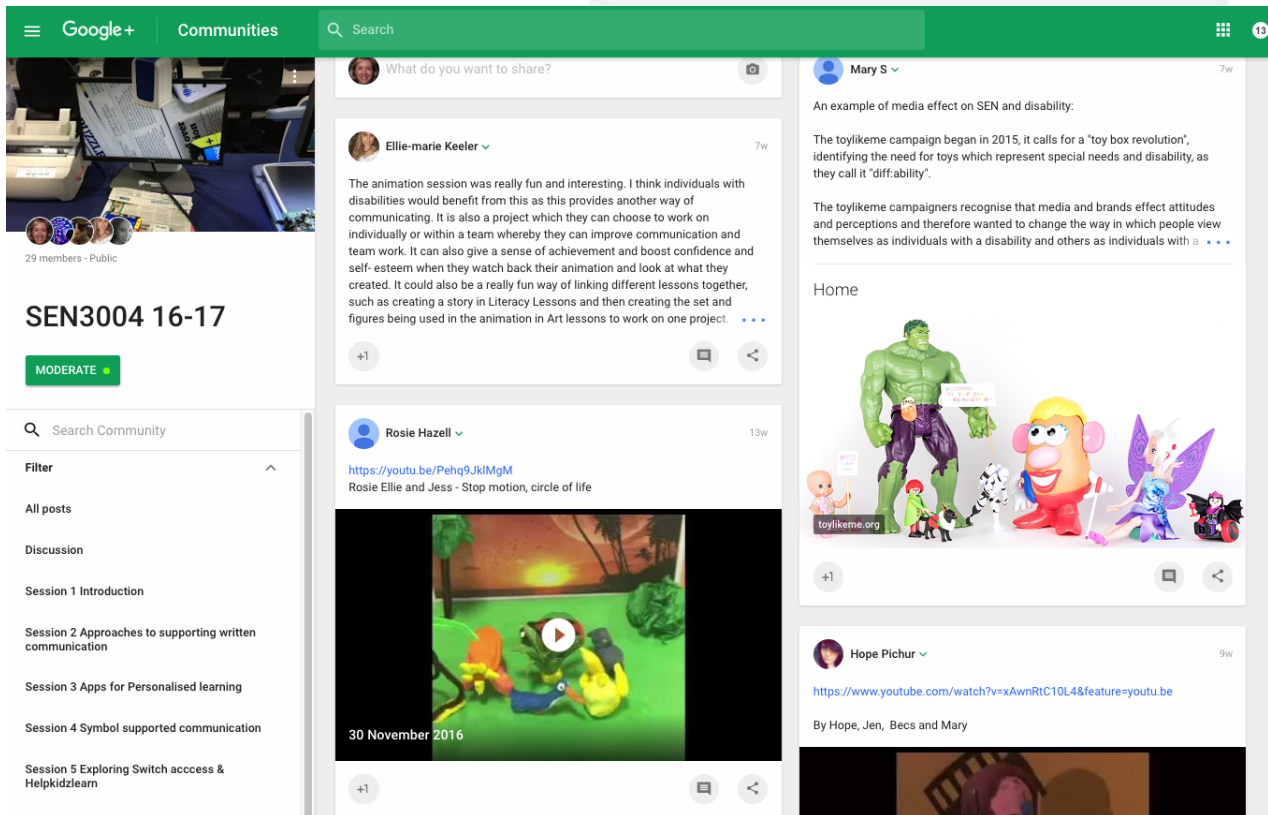
Makey Makey Playdate



...time for tinkering and experimenting



Animation



Google+ Communities Search

29 members - Public

SEN3004 16-17

MODERATE

Search Community

Filter

- All posts
- Discussion
- Session 1 Introduction
- Session 2 Approaches to supporting written communication
- Session 3 Apps for Personalised learning
- Session 4 Symbol supported communication
- Session 5 Exploring Switch access & Helpkidzlearn

What do you want to share?

Ellie-marie Keeler 7w

The animation session was really fun and interesting. I think individuals with disabilities would benefit from this as this provides another way of communicating. It is also a project which they can choose to work on individually or within a team whereby they can improve communication and team work. It can also give a sense of achievement and boost confidence and self-esteem when they watch back their animation and look at what they created. It could also be a really fun way of linking different lessons together, such as creating a story in Literacy Lessons and then creating the set and figures being used in the animation in Art lessons to work on one project.

Rosie Hazell 13w

<https://youtu.be/Pehq9JKiMgM>
Rosie Ellie and Jess - Stop motion, circle of life

30 November 2016

Mary S 7w

An example of media effect on SEN and disability:

The toylikeme campaign began in 2015, it calls for a "toy box revolution", identifying the need for toys which represent special needs and disability, as they call it "diffability".

The toylikeme campaigners recognise that media and brands effect attitudes and perceptions and therefore wanted to change the way in which people view themselves as individuals with a disability and others as individuals with a...

Home

toylikeme.org

Hope Pichur 9w

<https://www.youtube.com/watch?v=xAwnRTc10L4&feature=youtu.be>

By Hope, Jen, Becs and Mary

<https://www.youtube.com/watch?v=RqSnBgc-AxM&app=desktop>
<https://plus.google.com/u/0/communities/108570514394376300693/stream/35b39528-1488-4b0d-bafe-6ed5bc395f69>





Wearable tech



And we have a t shirt that lights up when you jump! @neiljjae @SwayGrantham @JeanEd70





SEN3004 – BA Hons Special Needs & Inclusion

Approaches to Support Inclusion through Technology

We have developed a technology enhanced approach to creating a range of immersive multisensory learning environments to support primary-aged children with SENDs. Themes explored include creative arts, music, storytelling, drama, robotics and media.





Background

- multisensory storytelling 'in which stories are not simply told but can be experienced with all our senses': Preece & Zhao (2015, p.1)
- digital and physical spaces 'orchestrate..an environment in which (Zoe) can interact with the world in new and constructive ways': Pagliano, (2000,p.5)

Students using technology to design immersive storytelling environments and pupils moving between digital and physical spaces in order to explore narrative through collaboration and control.





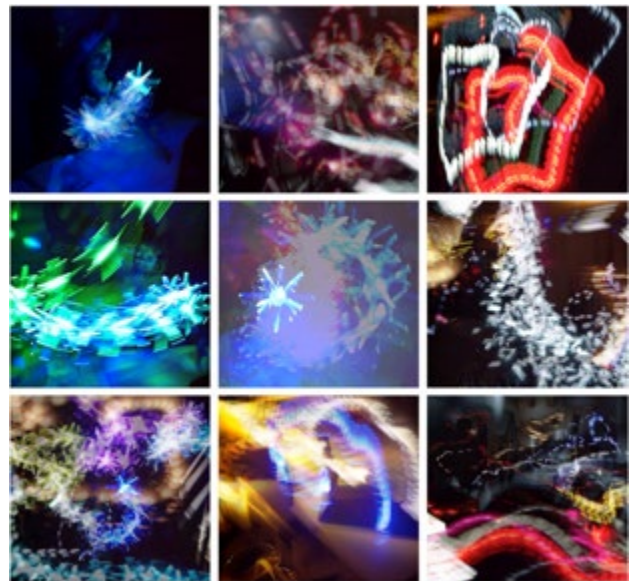
Multisensory environments



...multisensory environments for storytelling

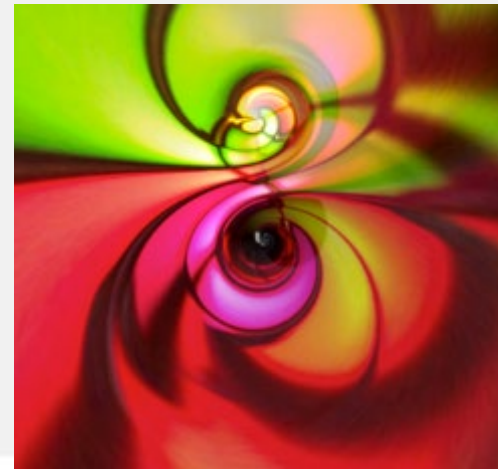


Working with light





Manipulating images



Preparation for the Story

- The children and the teacher were provided with storyboards prior to the visit –

The film was recorded and viewed by the children



The students were given time to plan and model their scenes and rehearse using the equipment

<https://youtu.be/m7Vy0GbvAd4>



Helen Caldwell

Books

- Caldwell H. & Cullingford-Agnew, S. (2017 publication pending). *Technology for SEND in Primary Schools: A good practice guide*. London: Sage.
- Caldwell, H. & Smith, N (2016). *Computing Unplugged: Exploring primary computing through practical activities away from the computer*. London: Sage.
- Wise, N. & Caldwell, H. (2016). *Help with Homework: Coding Essentials*. Chichester: Igloo Books.
- Caldwell, H. & Bird, J. (2015). *Teaching with Tablets*. London: Sage.
- Caldwell, H., Heaton, R., Whewell, E. & Grantham, S. (2015) *Switched on iPads Science*. London: Rising Stars.
- Bird, J., Caldwell, H. & Mayne, P. (2014). *Lessons in Teaching Computing in Primary Schools*. London: Sage.

MOOCs

- Let's Teach Computing 2015
- Teaching with Tablets 2016
- Involved with 12 Apps of Christmas 2016

Current Project

- **Digital Learning Across Boundaries** International Erasmus project





Postgraduate Certificate in Primary Computing

- 60 Masters' credits through 2 modules over 2 years
- Online course with optional face to face sessions and continual tutor support
- Shared enquiry with fellow teachers in an online community
- Designed to help you lead positive change in your school
- Flexible content across computing and digital literacy
- Assessment tasks linking classroom practice with theory and research
- No need to be an expert in the field

Contact

helen.caldwell@northampton.ac.uk



Free resources

- Barefoot Computing- <http://barefootcas.org.uk>
- BBC Podcasts Code Crackers- 5-7yrs old
- BBC Bitesize- choose key stage and then computing-
<http://www.bbc.co.uk/education/subjects/zyhbwmn>
- code.org- Hour of code or whole unit. <http://code.org/>
- Primary Quickstart- <http://primary.quickstartcomputing.org>
- <https://www.codeclub.org.uk/>- Free resources for Micro:bits, Scratch and Python projects.
- Computer Science Unplugged:
- <http://csunplugged.org/>
- Junior Computer Science on Code-it.co.uk <http://code-it.co.uk/csplanning.html>
- Teach London Computing <http://teachinglondoncomputing.org/>





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Steve.cullingford-agnew@northampton.ac.uk





Links

Thinglinks:

<https://www.thinglink.com/scene/838166724078469121>

<https://www.thinglink.com/scene/893192555754160128>

Multisensory videos:

<https://youtu.be/-KcYLtJFkbb>

https://youtu.be/_cEnkjmg_ro

Padlet

<https://padlet.com/helencaldwell/art>

Sketchbook circles

<https://padlet.com/eviemalpas95/mg8mopmo5i95>

Animations

- <https://www.youtube.com/watch?v=RqSnBgc-AxM&app=desktop>
- <https://plus.google.com/u/0/communities/108570514394376300693/stream/35b39528-1488-4b0d-bafe-6ed5bc395f69>

