

# Primary **computing** curriculum

A full scheme of work for Key Stage 1 and Key Stage 2

## Computing Curriculum

	KS1	KS2
CS	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web</p> <p>Appreciate how [search] results are selected and ranked</p>
IT	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Use search technologies effectively</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p>
DL	<p>Recognise common uses of information technology beyond school</p> <p>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies</p>	<p>Understand the opportunities [networks] offer for communication and collaboration</p> <p>Be discerning in evaluating digital content</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>

## Year 1 Curriculum Coverage 2014/15

Unit	Summary	Area of curriculum
1.1	Amazing Images	DL
1.2	All About Algorithms	CS
1.3	Cool Researchers	IT
1.4	Puppet Masters	IT
1.5	Let's make a card	DL

Year 1

# 1.1 Amazing Images

Software:

Pic collage

Hardware:

Ipads

Outcome

A picture collage showing aspects of the children's lives

Step 1: Thinking about what is important to them (1 or 2 lessons)

- Get children to think about things which are important to them
- Children could draw mindmaps or pictures of hobbies, things they like to eat etc
- Children could be encouraged to bring things in from home

Step 2: Making a picture collage (1 or 2 lessons)

- Children to learn how to take a digital photograph through pic collage
- Encourage children to take 5 or 6 photos using pic collage
- Children to experiment with changing the size and orientation of photographs

Step 3: Using more effect (1 or 2 lessons)

- Teach children how to change the borders of photographs
- Teach how to 'clip' photographs
- Teach how to edit photos

Note: all of the above can be achieved by double clicking the photographs and this will bring up the correct menu

Step 4: Using pictures to tell a story (see example in Year 1 folder) (2 or 3 lessons)

- Children could create a set of instructions using the camera and then labelling each picture to describe what it shows. Children could also use the frame layout to sequence a story, take pictures of story and re-arrange them in order of which they happened in a particular story.

Year 1

## 1.2 All About Algorithms!

Software:

None

Hardware:

Beebots

Outcome

Children can input instructions to a Beebot

### Step 1: Thinking about algorithms (2 or 3 lessons)

- Introduce algorithms to the children using the Crane lesson plan ideas (<http://www.code-it.co.uk/csplanning.html>)
- Develop children's understanding of ICT outside of school through the supermarket lesson plan ideas (<http://www.code-it.co.uk/csplanning.html>)
- Children give instructions to each other using basic instructions
- Extend to include blindfold!

### Step 2: Programmable BeeBots (1 or 2 lessons)

- the fact that it looks like a bee and is also like a robot (hence the name);
- the fact that it is battery powered and must be programmed to move;
- how to enter a sequence of just forward commands which can be run/executed by pressing the 'go' button to make the *Bee-Bot* move along a mat;
- how to use the 'clear' button to delete a set of commands and so 'tell the Bee-Bot it's a new child's go';
- how to press the turn (left/right) and back arrows to make the *Bee-Bot* move in different directions;
- how to combine sequences of commands to make the *Bee-Bot* travel to different destinations along 'L'-shaped routes;
- how to make the *Bee-Bot* travel in unusual paths along a mat to reach places in a sequence/avoid obstacles (usually done by telling a journey story linked with traditional story characters/locations);
- how to press the 'pause' button to make the *Bee-Bot* temporarily stop at a place on a mat before continuing on its journey

### Step 3: On screen BeeBot (1 or 2 lessons)

- The Beebot App provides a further method of inputting instructions
- Kodable on the I pads can also be used in a similar way

Ideas adapted from [www.simonhaugton.co.uk](http://www.simonhaugton.co.uk) and <http://www.code-it.co.uk>

Year 1

## 1.3 Cool Researchers

Software:

Infant encyclopaedia,

Hardware:

PCs

Outcome

Children can show what they have found out

Step 1: Being safe online (2 or 3 lessons)

- Introduce children to a safe site to search from ([www.swiggle.org.uk](http://www.swiggle.org.uk))
- Children click around site
- Discuss why we need to be careful online. What should we do if you see something you don't like?

Step 2: Using infant encyclopaedia (1 or 2 lessons)

- Show children the infant encyclopaedia website (<http://www.parkfieldict.co.uk/infant/>)
- Children to explore website
- Children use some of the interactive activities throughout the website

Step 3: Presenting information (1 or 2 lessons) (1 or 2 lessons)

- Using a programme such as Word or PowerPoint children to type some information which they have found out
- For children struggling to type they could use copy some of the pictures from infant encyclopaedia
- If using PowerPoint they could try adding transitions between the slides

Ideas adapted from [www.simonhaughton.co.uk](http://www.simonhaughton.co.uk)

Year 1

# 1.4 Puppet Masters

Software:

Puppet Pals

Hardware:

Ipads

Outcome

Children to make a short play on PuppetPals

Step 1: Building skills (2 or 3 lessons)

- Introduce PuppetPals to the children. Model how we can choose a character and a setting and then use voices.
- Children have a go on the Ipads, recording their voices. This will help them visualise what they are aiming for at the end of the project
- Children practise moving the characters around the screen

Step 2: Sequencing a story (1 or 2 lessons)

- Children to choose two characters from a story. What could they say to each other?
- Give children a picture from the story and practise a conversation between the characters

Step 3: Recording the story (1 or 2 lessons) (1 or 2 lessons)

- Using PuppetPals children to record their story which they have been practising

Year 1

# 1.5 Let's make a card

Software:

Publisher, Revelation Art

Hardware:

PCs

Outcome

Children to make a greeting card

## Step 1: Designing a picture (1 lesson)

- Children to design pictures which they could put on the front of the card using an art package
- Ensure pictures are saved as a jpeg

## Step 2: Making a card (2 or 3 lessons)

- Share some examples of cards and get used to using the programme
- Show children how to open up Publisher and choose a card template
- Insert their picture on to the front of the card
- Add a text box to write a message (some children may be able to use WordArt)
- Choose clipart if they want
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## Step 3: Writing a message (1 or 2 lessons)

- Children to write a message in the card in text boxes
- Experiment with changing the font of the writing and colour
- Remind children about using the space bar in between words

## Year 2 Curriculum Coverage 2014/15

Unit	Summary	Area of curriculum
2.1	Super Slideshows	DL
2.2	Brilliant Beebots	CS
2.3	Perfect Posters	IT
2.4	Let's Animate	IT
2.5	Let's blog	DL

Year 2

## 2.1 Super Slideshows

Software:

PowerPoint or Keynote

Hardware:

PCs or Ipads

Outcome

A slideshow

### Step 1: Research (1 or 2 lessons)

- Choose a research topic
- Search for images through Google and include E-safety
- Encourage quality over quantity

### Step 2: Creating Slides (2 or 3 lessons)

- Children to create new slide and text boxes and images
- Choose an overall theme
- Decide how much information they need to show
- Add animation

### Step 3: Presenting (1 or 2 lessons)

- Children to present their slideshow to a class
- Develop presentation skills- should they just read from the slide?
- Children could write their 'script' out in Word

Year 2

## 2.2 Brilliant Beebots

Software:	Beebot app	Hardware:	Ipads, Probots	Outcome	Children programme a Probots to move around
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Step 1: Understanding the Probot (1 or 2 lessons)

- The children **move the Pro-Bot around a floor mat to different destinations**, learning how to enter numerical commands (e.g. forward 3 instead of 3 lots of the forward command).

Step 2: Drawing with Probots (2 or 3 lessons)

- The children learn how to **put a pen inside the Pro-Bot and draw some simple lines onto a sheet of paper** using it.
- The children learn how to program the *Pro-Bot* to **draw rectangular shapes** with it (hopefully spotting a repeating pattern in the commands they enter).
- The children **draw shapes and patterns using the repeat command** in their programs.
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Step 3: Programming a Beebot on an Ipad (1 or 2 lessons)

- Children to use the skills they have learnt to programme on the Ipad using the Beebot app

Idea adapted from [www.simonhaughton.co.uk](http://www.simonhaughton.co.uk)

Year 2

## 2.3 Perfect Posters!

Software:

Word

Hardware:

PCs

Outcome

Children create a poster on Word using a range of tools

### Step 1: Basic skills (1 or 2 lessons)

- Recap basic skills for Word e.g. shift key for capitals, space between each word and after punctuation mark, arrow keys to move around, delete and/ backspace, enter button to start a new line
- Write sentences about selected theme
- Make a list of colours and change each one to the correct colour

### Step 2: Making a poster (3 or 4 lessons)

- Children change the font they are using. Copy one sentence several times and change the font to the best one
- Add photographs to the document and add some clipart
- Add, format and manipulate a text box. Text boxes will help position the text around the poster
- Add WordArt to the page and experiment to find the best effect

### Step 3: Editing and evaluating (1 or 2 lessons)

- What makes a poster look good e.g. consistent approach, matching fonts, evenly filled
- Consider changing the orientation
- Use zoom controls to view the whole page

Year 2

## 2.4 Let's Animate

Software:

Pivot Stick Animator, Sumopaint

Hardware:

PCs

Outcome

Create a line drawing of figure which can be animated on top of their own backgrounds

### Step 1: Creating animations (2 or 3 lessons)

- Show children pivot stick animator
- Model and then children to have a go themselves
- Save animations to Flash
- Animate different figure types and animations involving two figures

### Step 2: Developing backgrounds and characters (2 lessons)

- Children to create their own backgrounds in SumoPaint- ensure they save the file as a Jpeg
- Children to create a new figure type in Pivot Stick Animator
- Import their own background into Pivot Stick Animator

### Step 3: Animating a character on a background (1 or 2 lessons)

- Children to develop their animations
- Children to save their learning as a GIF file

Ideas adapted from BWJS Curriculum

Year 2

## 2.5 Let's Blog

Software:

Primary Blogger, thinkuknow

Hardware:

PCs

Outcome

Children write blog and develop E-safety understanding

Step 1: Understanding the how to behave online (1 or 2 lessons)

- Watch some of the videos from thinkuknow ([http://www.thinkuknow.co.uk/5\\_7/](http://www.thinkuknow.co.uk/5_7/))
- Share the four top tips
- Discussion of why we need to be careful online

Step 2: Reading blogs (1 or 2 lessons)

- Go to 100wc.net and read some of the blogs other children have written
- Teach children how to comment on the blogs

Step 3: Writing a blog (1 or 2 lessons)

- Get the children to log in to the class blog and remind about rules of blogging - no full names
- Set clear expectations and not every post will get published
- Remind about word processing skills so that children are clear about spaces, enter button etc
- Teach how to copy the post into word so the children can spell check
- Children comment on each other's blogs

## Year 3 Curriculum Coverage 2014/15

Unit	Summary	Area of curriculum
3.1	Video Magic	IT
3.2	Racing Cars	CS
3.3	Let's communicate online!	DL
3.4	Digital artists	IT
3.5	Let's be safe	DL

Year 3

## 3.1 Video Magic

Software:

I can animate, Imovie

Hardware:

Ipads

Outcome

A short stop frame animation video

Step 1: Planning the animation (1 or 2 lessons)

- Children to draw a character which can be used in the stop frame animation video
- Choose three messages that the character could say
- Decide on simple movements that the character could make

Step 2: Filming the video (1 or 2 lessons)

- Using 'I can animate' children film a short video
- Ensure Ipad is kept still and that no fingers creep into shot!
- Discuss how only small movements should be made each time there is a movement

Step 3: Adding music (1 or 2 lessons)

- Import the stop frame animation into Imovie
- Add music to the video
- Embed the video in class blog

Year 3

## 3.2 Racing Cars

Software:

Scratch

Hardware:

PCs

Outcome

Children make a car move around a track on Scratch

**Step 1: Understanding algorithms (1 or 2 lessons)**

- Discuss algorithms and how instructions need to be exact
- Generate day to day tasks that children could write algorithms for
- Explain the car task and children to learn how to move a car around the screen

**Step 2: Adding more commands (1 or 2 lessons)**

- Children to learn how to leave a trail using pen up and pen down
- Think about how to change the width of the line
- Test and debug as required

**Step 3: Designing own version (1 or 2 lessons)**

- Children to design their own versions of the game
- Present their ideas to the class

*Activities based on ideas from BWJS Computing Curriculum*

Year 3

## 3.3 Let's communicate online!

Software:

Google mail, Primary Blogger

Hardware:

PCs

Outcome

Children manage inbox, write blog posts and comment on other posts

**Step 1: Understanding the how to behave online (1 lessons)**

- Brainstorm the different ways we can communicate using technology
- Discuss important of communicating appropriately
- How do these rules apply outside school?
- Set out rules for using Google Apps

**Step 2: Logging on and sending emails (2 or 3 lessons)**

- Children learn how to log on to Google Apps
- Remind children about the rules of passwords and e-safety rules
- Children learn how to send messages
- Send children an unpleasant message (but carefully worded) from the school bully account (directly before lesson). Children learn what to do i.e. forward message to teacher. Ensure children know that this is not a real message. Children to delete message once lesson is completed.

**Step 3: Blogging (1 or 2 lessons)**

- Children learn how to log on to Primary Blogger and write a blog post
- Children learn how to comment on other children's blog posts (try some of the links from 100wc.net)

*Activities based on ideas from BWJS Computing Curriculum*

Year 3

## 3.4 Digital Artists!

Software:

Sumopaint.com, picture manager

Hardware:

PCs/ Ipads for photos

Outcome

Children combine images so that their photo is on a different background

### Step 1: Taking pictures and editing (2 lessons)

Note: These pictures will have to be uploaded on to the school network through the app 'File Explorer'

- Children to take photographs of each other
- Discussion about how photography has changed
- Children to select photos and open in Microsoft Picture Manager
- Children adjust brightness and contrast and crop the photo

### Step 2: Drawing a scene (2 or 3 lessons)

- Children to try drawing on Sumopaint (no need to log in)
- Children to create a scene which will be the background of their final picture
- Children learn how to save their sumo paint image into their personal folder

### Step 3: Importing photographs (1 or 2 lessons)

- Children import their photograph into a new layer on Sumopaint so they are stood in front of the scene
- Children zoom in and delete the background from the photo
- Add a third layer to put a costume on the photo

*Activities based on ideas from BWJS Computing Curriculum*

Year 3

## 3.5 Let's be safe

Software:

Publisher

Hardware:

PCs

Outcome

Children create an E-safety leaflet on Publisher

### Step 1: E-safety revision (1 lesson)

- Brainstorm the different ways we can communicate using technology
- Discuss importance of communicating appropriately [http://www.thinkuknow.co.uk/8\\_10/](http://www.thinkuknow.co.uk/8_10/)
- How do these rules apply outside school?
- Build up class rules about how we can stay safe online
- Plan the information they would like to include in an E-safety leaflet

### Step 2: Making a leaflet (3 or 4 lessons)

- Show children how to set up a leaflet template on Publisher
- Children to write the leaflet and include images
- Show how to add borders to images

### Step 3: Editing and evaluating (1 or 2 lessons)

- Share leaflets and children evaluate
- Refine leaflets so they are easy to read and not to garish!

## Year 4 Curriculum Coverage 2014/15

Unit	Title	Area of curriculum
4.1	Amazing Adventures!	CS
4.2	Conversations	CS
4.3	Multimedia Books	IT
4.4	Super Spreadsheets	IT
4.5	Let's communicate online!	DL

Year 4

# 4.1 Amazing Adventures!

Software:

PowerPoint

Hardware:

PCs

Outcome

A non-linear slide show which takes the reader through an adventure story

## Step 1: Algorithms ( 1 or 2 lessons)

- Ask children what they do when they get up. From responses explain that as an algorithm this would leave out too much information.
- Children to create flowcharts of different routines e.g. eating breakfast using sugar paper, diamonds and ovals (ovals = start, rectangles = steps and diamonds = decisions)
- Follow the 'Playground Games Algorithm' lesson written by Phil Bagge ([www.code-it.co.uk/unplugged/playgroundgames/playgroundgamesplan.pdf](http://www.code-it.co.uk/unplugged/playgroundgames/playgroundgamesplan.pdf))

## Step 2: Planning an adventure (1 or 2 lessons)

- Think about examples of adventure stories
- What might happen?
- Children plan in flowcharts

## Step 3: Making the story (3 or 4 lessons)

- Children create slides for each section of the story
- Add hyperlinks and buttons so that we can move to different slides
- Format slides and add artwork
- Add transitions between slides
- Share with others

*Activities based on ideas from BWJS Computing Curriculum*

Year 4

## 4.2 Conversations...

Software:

Scratch

Hardware:

PCs

Outcome

Making two characters talk to each other in Scratch

Step 1: Understanding algorithms (1 or 2 lessons)

- Discuss the meaning of algorithm
- Import a background and an image of themselves
- Delete the background from the image of themselves
- Create a programming block which makes their character appear to speak.

Step 2: Making two characters speak to each other (1 or 2 lessons)

- A programme will need to be created for both sprites
- Children create a conversation between the sprites
- Develop timing for the conversation

Step 3: Reinforcing skills (1 or 2 lessons)

- Develop conversations further or a second conversation

*Activities based on ideas from BWJS Computing Curriculum*

Year 4

## 4.3 Multimedia Books

Software:

Book Creator

Hardware:

Ipads

Outcome

A multimedia book

Step 1: Planning a topic (1 or 2 lessons)

- This can be a non-fiction or fiction book. Children can use the first sessions to research ideas and find images.
- Share features you might find in a book. What extra features would a multimedia book have?

Step 2: Creating the book (2 or 3 lessons)

- Show children how to add text, images, sound to the book
- Edit and crop images as necessary
- Children use the sessions to populate the book. Aim for a front cover and 3 written pages with a mixture of images, sound and text

Step 3: Refining and sharing the books (1 or 2 lessons)

- Share books and evaluate
- Which are easy to read? Why?
- Children to edit books so that they have a refined end product

Year 4

## 4.4 Super Spreadsheets

Software:

Google mail, Primary Blogger

Hardware:

PCs

Outcome

Children create a spreadsheet using simple formulae

Step 1: Looking at existing spreadsheets (2 lessons)

- Open an example spreadsheet and get the children to explore it
- Children to answer questions about the data in the spreadsheet
- Children enter and change information in the spreadsheet

Step 2: Creating a spreadsheet (1 or 2 lessons)

- Input information into a spreadsheet of their own
- Fill information under two column headings
- Work out totals using the SUM formula

Step 3: Creating graphs (1 lesson)

- Children present information from the spreadsheet as a bar graph

Step 4: Adding formulae (1 or 2 lessons)

- Children to make a timestable grid sheet using formulae
- Children can go on to make addition, subtraction or division grids where the answers are shown automatically through a formula

*Activities based on ideas from BWJS Computing Curriculum*

Year 4

## 4.5 Let's communicate online

Software:	Sumopaint.com, picture manager	Hardware:	PCs/ Ipads for photos	Outcome	Children combine images to that their photo is on a different background
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### Step 1: E-safety (1 lesson)

- Children to develop understanding and risks of online communication
- Discuss different ways of communicating online e.g. email, instant messaging, forums, chatrooms, social networking

### Step 2: Emails (1 or 2 lessons)

- Log on to emails - children learn to send, reply, forward and delete
- Work through Sunil's email activity from thinkuknow cyber café ([www.thinkuknow.co.uk/8\\_10/cybercafe/cyber-cafe-base](http://www.thinkuknow.co.uk/8_10/cybercafe/cyber-cafe-base))

### Step 3: Blogging (1 or 2 lessons)

- Children research a topic and learn how to use a search engine effectively. How do you narrow results?
- Children comment on a blog post (e.g. 100wc.net)
- Children write a blog post using their research

*Activities based on ideas from BWJS Computing Curriculum*

## Year 5 Curriculum Coverage 2014/15

Unit	Title	Area of curriculum
5.1	Website Designers	DL
5.2	Magic Maths Quiz	CS
5.3	Podcasts	IT
5.4	Making a 3D Model	IT
5.5	Let's communicate online!	DL

Year 5

# 5.1 Website Designers!

Software:

Google sites

Hardware:

PCs

Outcome

Research a topic to create a google hosted website

Step 1: Understanding school networks and the internet ( 2 or 3 lessons)

- Define a network
- Create a physical network with the children ( 1 person the server who is linked to switches which is then linked to individual computers)
- Create diagrams to explain a school network
- Watch two videos about the internet <http://thekidshouldseethis.com/post/26674356049>  
<http://www.ictvideohelp.co.uk/internet/internetpackages/internetpackages.html>
- Build understanding of what happens when we search online [http://www.code-it.co.uk/internet/schoolsnetwork\\_planning.pdf](http://www.code-it.co.uk/internet/schoolsnetwork_planning.pdf)

Step 2: Creating a website (2 or 3 lessons)

- Share examples of websites (e.g. school site) and discuss the purpose of a webpage
- Children to begin a site in Google Sites
- Share how to change permissions and then change the theme
- Develop the structure for the website, deciding on headings
- Children research ideas to fill their website
- Populate website avoiding straight copy and pasting

Step 3: Adding images and sharing (1 or 2 lessons)

- Add images to the website using public domain images (<http://www.morguefile.com/> , <http://www.freedigitalphotos.net/>  
<http://www.publicdomainpictures.net/>)
- Share websites with other children
- Evaluate websites

*Activities based on ideas from BWJS Computing Curriculum*

Year 5

## 5.2 Magic Maths Quiz

Software:

Scratch

Hardware:

PCs

Outcome

Making a maths quiz in Scratch

### Step 1: Understanding algorithms (1 or 2 lessons)

- Discuss the meaning of algorithm
- Introduce the concept of selection through the 'if', 'else' block. Give illustrations of selection in the real world: IF it rains, I get wet, ELSE I stay dry. IF I eat, I'll have energy, ELSE I'll stay hungry.
- Put a maths question into the ask block. We also need to supply the answer to our question. To do this, you need an 'answer' oval and a '=' operator.
- Finally, we need an output for each answer - a 'Correct; or 'Wrong' response for our sprite to say. Drag these into the correct places.

### Step 2: Creating the quiz (1 or 2 lessons)

- Children create a series of questions which can be answered
- Teach children how to add a score

### Step 3: Adding messages (1 or 2 lessons)

- Children to add messages to the quiz e.g. well done
- Children to programme an ending to the quiz
- Consider adding a game over screen

*Activities based on ideas from BWJS Computing Curriculum*

Year 5

## 5.3 Podcasts

Software:	Audacity, <a href="https://audionetwork.lgfl.org.uk/">https://audionetwork.lgfl.org.uk/</a> , Google docs	Hardware:	PCs	Outcome	Children collaborate on a script and then record a series of sound clips and music
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### Step 1: Writing the podcast (1 or 2 lessons)

- Children to prepare for a podcast by listening to some existing podcasts <http://www.bbc.co.uk/podcasts/genre/childrens>
- Children to write a script by collaborating on Google Docs

### Step 2: Recording (2 or 3 lessons)

- Children to record the sections of a podcast using the Ipads
- Import into audacity and demonstrate how to trim and move sections of speech
- Children find, download and import music to their podcast. Use <https://audionetwork.lgfl.org.uk/>

### Step 3: Editing (1 or 2 lessons)

- Children refine their podcasts by trimming beginnings and endings if necessary.
- Adjust volumes if necessary
- Export and upload podcasts to audioboo
- Embed the audioboo code in a blog

*Activities based on ideas from BWJS Computing Curriculum*

Year 5

## 5.4 Making a 3D Model

Software:

Sketchup

Hardware:

PCs

Outcome

Children draw and manipulate 3D model

### Step 1: Creating shapes and developing skills (2 lessons)

- Children play around with making shapes
- Rotate views and remove chunks of a shape
- Remove an object
- Draw a house using Sketchup
- Add colour to the house

### Step 2: Creating a model (3 or 4 lessons)

- Choose a model linked to the curriculum
- Create the model
- Refine the model
- Present the model to the class

### Step 3: Blogging (1 lesson)

- Create a blog post about the Sketchup model

*Activities based on ideas from BWJS Computing Curriculum*

Year 5

## 5.5 Let's communicate online

Software:	Sumopaint.com, picture manager	Hardware:	PCs/ I pads for photos	Outcome	Children combine images to that their photo is on a different background
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### Step 1: E-safety (3 or 4 lessons)

- Children to develop understanding and risks of online communication
- Discuss different ways of communicating online e.g. email, instant messaging, forums, chatrooms, social networking
- What do we need to think about when using these services?
- Safety for emails - remind about acceptable use
- Develop understanding of online presence - use ideas from thinkuknow jigsaw ([www.thinkuknow.co.uk/teachers/resources](http://www.thinkuknow.co.uk/teachers/resources))
- Create an online avatar - why might this be safer than a photo? [www.doppelme.com](http://www.doppelme.com)

### Step 2: Blogging (1 or 2 lessons)

- Children research a topic and learn how to use a search engine effectively. How do you narrow results?
- Children comment on a blog post (e.g. 100wc.net)
- Children write a blog post using their research
- Children embed a picture

*Activities based on ideas from BWJS Computing Curriculum*

## Year 6 Curriculum Coverage 2014/15

Unit	Title	Area of curriculum
6.1	Presenting with Prezi	DL
6.2	Making a Maze Game	CS
6.3	Video Makers	IT
6.4	Database Wizards	IT
6.5	Let's communicate	DL

Year 6

# 6.1 Presenting with Prezi

Software:

Prezi

Hardware:

PCs

Outcome

Research a topic to create Prezi presentation

## Step 1: Getting started ( 1 or 2 lessons)

- Log on to Prezi website and create an account using Google Apps password
- Watch the Prezi instructional videos from the website
- Browse the Prezi site to see some examples of Prezi's
- Choose an area to research and collect information to be used in the Prezi

## Step 2: Making a Prezi (2 or 3 lessons)

- Children present research information in a Prezi
- Add text, objects and frames
- Add a path to the Prezi to move between different items
- Choose a theme

## Step 3: Sharing and presenting (1 or 2 lessons)

- Find the embed code and copy it into a blog post
- Write a short introduction for the Prezi
- Children view and comment on each other's Prezi's

*Activities based on ideas from BWJS Computing Curriculum*

Year 6

## 6.2 Making a Maze Game!

Software:

Scratch

Hardware:

PCs

Outcome

Making a maze game in Scratch

Step 1: Creating sprites and a maze (1 or 2 lessons)

- Draw a new sprite in Scratch and then create a second costume by copying and editing
- Add movement to the sprite
- Follow planning <http://www.code-it.co.uk/scratch/crabmaze.html>

Step 2: Adding levels (1 or 2 lessons)

- Use extension activities from <http://www.code-it.co.uk/scratch/crabmaze.html>

Step 3: Making your own (1 or 2 lessons)

- Children to design their own maze games

*Activities based on ideas from BWJS Computing Curriculum*

Year 6

## 6.3 Video Makers

Software:

Imovie

Hardware:

Ipads

Outcome

Children to make a video about school life.

Step 1: Planning a video (1 or 2 lessons)

- Mindmap ideas of what needs to be included
- Plan out ideas onto a storyboard

Step 2: Gathering the footage (1 or 2 lessons)

- Children take photos and video footage that will be used in their movies (children may want to back up this data by saving it on to the school network through the file explorer app)

Step 3: Putting the movie together (2 or 3 lessons)

- Children put together the video and photos taken using Imovie
- Trim clips and experiment with the order
- Add transitions and titles to the project
- Add additional music <https://www.audionetwork.nen.gov.uk/>
- Videos could be uploaded to YouTube and then embedded in a class blog or to school website

*Activities based on ideas from BWJS Computing Curriculum*

Year 6

## 6.4 Database Wizards

Software:	Junior Librarian, MS Access, Google Forms	Hardware:	PCs	Outcome	Children create a database which stores information
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Step 1: Navigate and search an existing database (1 lesson)

- Children navigate Junior Librarian and use terms such as 'record' and 'field' (a 'record' is a set of information about one thing (a book, in this case). A 'field' is a type of information - title, author, etc)
- Answer questions using Junior Librarian as a research tool.

Step 2: Gathering information (2 or 3 lessons)

- Show children how to put a Google form together
- Mindmap different questions to ask
- Children to create their own Google form and send them out to others
- Children fill in forms that they have been sent

Step 3: Creating a database (2 or 3 lessons)

- Model creating a database in Access
- Children to create one of their own (ensuring fields correspond with questions asked in forms)
- Children populate databases
- Design a new database linked to the curriculum and then add information to it

*Activities based on ideas from BWJS Computing Curriculum*

Year 6

## 6.5 Let's communicate!

Software:

Sumopaint.com, picture manager

Hardware:

PCs/ Ipads for photos

Outcome

Children develop E-safety understanding and blogging skills

### Step 1: E-safety (3 or 4 lessons)

- Development understanding of how photographs need to be used carefully online
- Imagine sending photos which you thought were funny of your friend
- Spend some time looking at 'Ali's Personal Online Space' here: [https://www.thinkuknow.co.uk/8\\_10/cybercafe/Cyber-Cafe-Base/](https://www.thinkuknow.co.uk/8_10/cybercafe/Cyber-Cafe-Base/)
- Spend some time looking at Chloe's mobile phone area here: [https://www.thinkuknow.co.uk/8\\_10/cybercafe/Cyber-Cafe-Base/](https://www.thinkuknow.co.uk/8_10/cybercafe/Cyber-Cafe-Base/)
- Send and receive emails - remind about safety

### Step 2: Blogging (1 or 2 lessons)

- Children research a topic and learn how to use a search engine effectively. How do you narrow results?
- Children comment on a blog post (e.g. 100wc.net)
- Children write a blog post using their research
- Children embed a picture

*Activities based on ideas from BWJS Computing Curriculum*