Penbridge School Computing Curriculum

Unit: Evaluating content

NC Link:

(KS2) 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

Success Criteria Progression:

Year 3	Children can explain what they like and don't like about a picture. Children will be able to give their peers feedback on what they like and don't like about their product. Children will be able to justify their opinions
Year 4	Children will be able to reflect on the positives and negatives of their design. Children will be able to suggest ways to improve designs. Children will be able to make changes based upon feedback given.
Year 5	(SEARCH) Children will be able to evaluate the accuracy of a website or source. Children will be able to explain why websites may not be accurate or reliable.
Year 6	Children will be able to evaluate and improve their own creation/system. Children will be able to evaluate their system based upon target creation/system.

Year 3 – Photo Creation

Lesson 1	Lesson 2	Lesson 3	Lesson 4
LO: To experiment with taking and enhancing photos. Starter: Can you remember how to take a photo on an iPad? Can you list the steps for someone who has never used an iPad before? Input: Why is photography so important? How many different ways can you think of to change how an object looks in a photograph? Build list to try out later in the lesson. Introduce keywords: Perspective, focus, exposure. Look at examples of how these factors can change a photograph and how they can be changed on the camera app on an iPad. Children to experiment at taking photographs and changing perspective, focus and exposure to alter their photos. Activity: Introduce the idea of a photo walk. As a class roughly walk the route of daily mile. When back in classroom, introduce the fact that most photographs in media are adjusted and edited. Introduce the keyword enhance/enhancing and how we can enhance photos on an iPad (enhance/straighten/rotate/crop). Children to then practise editing their photos from the classroom and photo walk. Less Able: More Able: GDs to also think about how lighting can affect a photograph. Plenary: Can you write some top tips/steps for someone to take the perfect photo on an iPad – imagine it is for an elderly relative or someone who doesn't use technology.	LO: To use doodle tool to enhance a photo of an everyday object. Starter: Children should have been thinking about objects they have seen which could be photographed and enhanced to create tremor themed digital art. Share any ideas they have and look at examples of doodled on photographs. Input: What can you remember from last lesson? What do I need to think about when taking a photograph on an iPad. What else do I need to think about when enhancing/editing a photograph on an iPad? Introduce the markup/doodle feature on the photos app and how to change colour/tool/thickness to achieve different effects. Activity: Children to find and take a photo of an everyday item each - they can move the object thinking about perspective, focus, exposure. Remind them they are going to turn it into a Tremors related piece of art. Children to use what they learnt last week to ensure they have a high-quality picture. *Children may want to then sketch out what they want their final piece to look like on a whiteboard or scrap paper.* Give the children time to then create their piece of digital art and make sure they are uploaded to seesaw/saved elsewhere so they can be printed off for next lesson. Less Able: More Able: Plenary: Is there another doodle idea you could have drawn to change your original photo into something else?	LO: To peer-assess our digital art. Starter: Get up your favourite picture Input: Why is it important that we reflect on our work? Not just in computing but across the whole curriculum. Why do we use thinking hats to do reflections? Why is it more effective to use more than one thinking hat when we reflect? How do we give good feedback to our partner? What should be on our success criteria that we can assess against? Activity: Children to partner up and complete feedback based on the success criteria for the artwork. Children to then read their feedback and come up with a green hat. What will you change based on the feedback? Children then have time to adapt their artwork. *(Get children to duplicate pictures before editing them so we can see the progress)* Less Able: Differentiated feedback sheet More Able: Justify feedback given linking to the desired outcome Plenary: Peer-assess: How well do you think your partner has responded to your feedback? Why?	LO: To self-assess our digital art. Starter: R Input: Activity: Less Able: More Able: Plenary: Green hat reflection – what could you do differently if you were to create some digital art again?

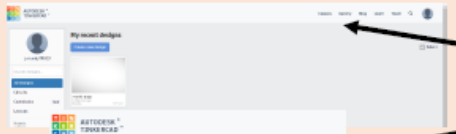
Year 4 – 3D Design

See bottom of document for logging in information

Lesson 1	Lesson 2	Lesson 3	Lesson 4
LO: To explain what 3D design is and use 3D Design tools. Starter: What does 3D mean? Prediction key – What is 3D design? Input: Discuss with children what 3D Design is. Can children come up with real world examples of when 3D Design could be used? What jobs might use 3D Design? Discuss with children which skills they would need to be successful. Look at different 3D designs and discuss what they like about them and Activity: Show children images of multilink models and get them to try and recreate them. Children then move on to play this game; https://www.digipuzzle.net/minigames/build/build_patterns.htm?language=english&linkback=../../education/index.htm Once they think they have copied the design, click on the tick and if correct and move onto the next level. Less Able: More Able: Plenary: Blue hat –what did you find difficult today and why?	LO: To use TinkerCAD to create buildings. Starter: What is 3D design? Who might use 3D design to help them? Input: Show children how to log on and off of TinkerCAD. Once children have logged back off get them to try logging on independently and address any misconceptions. Model TinkerCADto children. Show them a variety of things that can be created. Activity: Children to use 3D shapes to build a row of houses-They will use cubes and square-based pyramids to build a row of houses by changing the size, colour, height and using duplicate tools. Children need to choose two of the buildings they created and complete a thinking hat reflection on them. Less Able: More Able: Can you use the shapes to create other types of buildings? Can you add windows and doors? Plenary: Peer assessment of creations.	LO: To use TinkerCADto create different shapes. Starter: Think back to last lesson –write some top tips for using TinkerCAD. Input: Re-cap logging in and let children build another house to ensure they remember how to do it. Demonstrate to children how to create roads, gardens and paths by adjusting the height of 3D shapes Activity: Children to add roads, gardens and paths to their project from last week. Less Able: More Able: Can you use your skills to add windows and doors? Plenary: Peer assessment of creations.	*Double lesson* LO: To use 3D Design technology independently. Starter: Read peer-assessment from last lesson and use it to set yourself a target for the project today. Input: Re-cap skills with children. Introduce children to chosen project – give children to discuss how they might achieve this. What design are they going to do? Activity: Children to work independently to complete the project. Throughout the lessons children need to complete peer assessment sheet for their projects. A partner should suggest some feedback which children should then act on. When they have acted upon the feedback children need to record how they did it on the sheet. Less Able: More Able: Plenary: Self assessment of creations

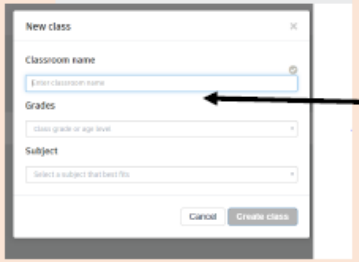
3D Design

Adding children to the website

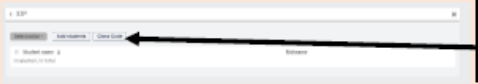


1. Click on 'Classes'

2. Create new class

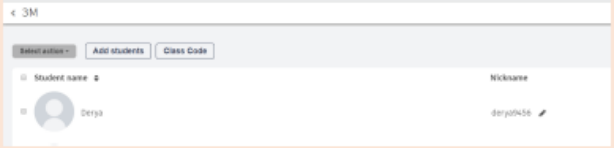


3. Enter class name. You can leave the others blank.



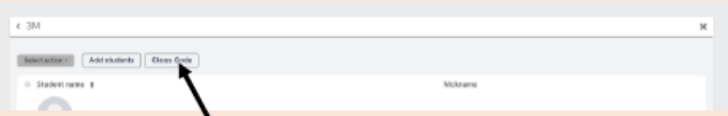
4. Click on your class and then click Add Students

5. You can add students individually or paste a list.
I would recommend pasting in a list and only using first names.

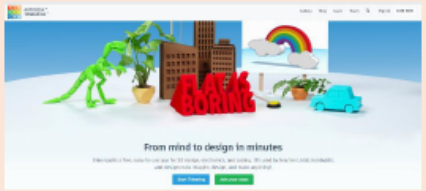


6. Your class will then be added and given a nickname.
They will need this nickname to login so it might be worth printing off.

Logging children onto the website

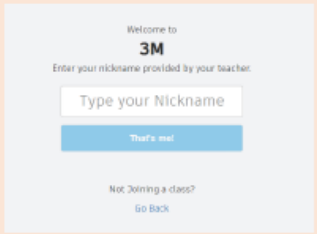


Click on class code



Children should visit the website and click on join class.

They then type in the code that is on your screen.



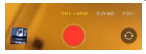
They then type in the nickname they were given when you signed them up.

Year 5

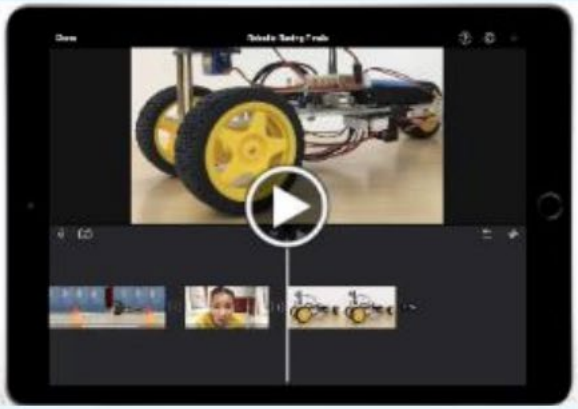
These objectives are covered during the Search unit.

See separate planning for this half term (Video creation unit)

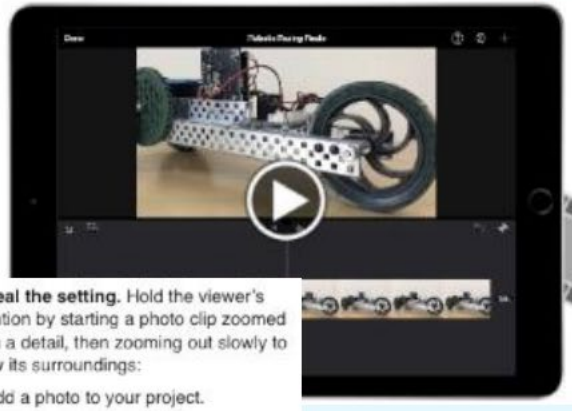
Year 6 – Video creation

Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
LO: To change the speed of a video. Starter: What do you know about filming and editing videos so far? What skills can you remember from other years? Input 1: Watch a video which uses different speeds and settings. What effects did they see? What changed about the speeds? Introduce the time lapse mode and then adding it to iMovie and creating a freeze frame. Activity 1: Children to practice using the time lapse setting. Then practice adding to iMovie and creating a freeze frame.   Input 2: Show children how to use slow motion setting. Also demonstrate to children how to change the speed of a normal video in iMovie. Activity 2: Children to practice this new skill.   Less Able: More Able: Plenary: Which effect do you think would be the best to use in a report? Why?	LO: To make a picture move in a movie. Starter: What skills can you remember about filming in slow motion and time lapse? Input: Show different picture montages created on iMovie. What do they notice about the pictures? Show children how to add pictures to an iMovie project. Once added demonstrate to children how to make the picture move. Activity: Children to practice adding pictures and changing the start and end position. *See below for more information.* Less Able: More Able: Plenary: What impact would this setting have on the viewer?	LO: To plan and organise a mobile report. Starter: What have you learnt about filming and editing videos so far? What skills can you remember? Input: What is a report? Why will people record them? Introduce project and expectations. Put children into groups. Briefly recap effects children will be using in their reports – show children examples. Activity: Children work in groups to plan their report. Which parts will be in slow motion? Which will you time lapse? When will it be effective to add freeze frames/moving pictures? Discuss with children that they will be able to add voice over to parts. Children to add to plan when they will add voice over and create ideas for what they will say. Less Able/More Able: Mixed ability groups Plenary: Share plans. Have you included everything? Would you like to magpie anything from a partner? Blue hat – what do you think you will find difficult when creating your report?	LO: To record a report. Starter: Read through your plan – does it all make sense? Are there any changes you need to make? Input: What can you remember from previous years about camera angles? - How can we ensure we get the best video quality? Talk about camera angles, steady camera, zooming in and out and focus Activity: Children to work in their groups to record the event Less Able/More Able: Mixed ability groups Plenary: Check through all of your clips and upload them to Teams as a backup.	LO: To complete and reflect on a video project. Starter: What have you learnt about filming and editing videos so far? What skills can you remember? Input: Re-cap skills learnt for editing Activity: Children to spend time editing together their reports. Less Able/More Able: Mixed ability groups Plenary: Share reports with the class and then complete thinking hat reflection.

Y6 L2



4. **Adjust the Ken Burns effect:**
   - ✓ Tap the photo clip in the timeline.
   - ✓ Pinch in to zoom out on the image in the viewer, then drag the photo to reframe. This is the start position for the photo.
   - ✓ Tap the End button ▶|, then pinch out to zoom in on an important detail in the photo. Drag to reframe.
5. **Play the clip.**



6. **Trim the duration of the photo clip.** This adjusts the speed of the movement without changing your framing:
   - ✓ Extend the clip to increase the duration.
   - ✓ Shorten the clip to make the movement faster.

7. **Reveal the setting.** Hold the viewer's attention by starting a photo clip zoomed in on a detail, then zooming out slowly to show its surroundings:
   - ✓ Add a photo to your project.
   - ✓ Tap the Start button |◀, then zoom in on the subject.
   - ✓ Tap the End button ▶|, then zoom out to fit the entire photo in the frame.
   - ✓ Extend the clip to slow the movement.
8. **Hold a picture static.** Tap the Ken Burns Enabled button to turn off panning and zooming.