

Subject: Computing Year Group: Year 1/2		Area of learning: Photography (RS 2.3)		
Links to previous work/Remember when	Ipad photos, smartphone photos			
Term	Year	Key Skills to be taught		
Summer 2 (Cycle A) 2022/23	Y1/2	In this unit, the children review photos online, practise using a digital camera, take photos to fit a given theme, edit their photos, and then select their best images to include in a shared portfolio		
What the children should know at the end of this series of lessons				

Vocabulary:

photographs, camera, artistic, sensors, smartphones, tablets, computer drive, edit, enhance

Sequen	Objectives and suggested details provided by the subject leader.
ce of	
learning	Lancard Landing at photos
1	Start by introducing the unit, telling the children they will be learning how to take better photos. Share the Learning expectations for the unit (see page 32) and explain the success criteria. Ask the children about their experience of taking photographs. Do they have their own camera, including cameras built into smartphones or tablets? What do they take photos of? Brief the children on the theme you have chosen. Working together, brainstorm ideas for photographs on this theme. Demonstrate searching an online photo collection (such as Flickr, 500px or Pixabay – see Resources) to find pictures related to the theme. Remind the children to turn their screen off (or close the lid of a laptop/turn a tablet over) and let you know if they see any pictures they're concerned about. Encourage the children to find images they think are particularly effective or beautiful, and share their discoveries with one another. Review the images the children have chosen, and display some of them on the IWB. Invite the child who chose each image to explain
	why they like it. Ask other children to comment on the photo. Discuss what makes a good photo, considering both technical and artistic aspects.
2	Lesson 2 - Learning about the camera



Ask the children to name devices that have a digital camera built into them. Collect a list on the IWB. Explain that inside each of these devices there is a computer chip containing millions of tiny sensors that measure the amount of light falling onto them and store this information as a number. The numbers from the sensors become the pixels (picture elements) of the image. Each pixel is made up of three numbers, typically between 0 and 255, representing a colour as a combination of red, green and blue light (RGB). Up to 16 million different colours can be represented in this way. Provide pairs or groups of children with digital cameras, smartphones or tablets (or allow individuals to use their own). Emphasise the importance of treating the devices carefully, as they're not toys, but encourage the children to experiment with the devices, to work out what the buttons and settings do. Ask the children to share what they learn with others. (This is easier if all the children are working with the same type of camera/device.) Ask any children who are more experienced photographers if they have any tips for taking great photos. Collate some of these on the IWB. You may find it helpful to refer to the poster. Explain and demonstrate three essential techniques for sharp, clear images: focusing properly, keeping the device steady, and ensuring the subject is well lit. Provide further advice as appropriate. Ask the children to review their photos on the camera or device, deleting any they don't like.

3 Lesson 3 - Taking photos

Remind the children of the theme for their photos, and reiterate the tips for taking good photos. Explain the practical arrangements for taking photos, such as where the children will be working, how big the groups are, how many children will be sharing a camera/device, and any rules. Be clear about the rules for taking photographs of people, and ensure these are in accordance with your school's policies and any necessary permissions. Assign the children to their groups and provide them with cameras (or allow them to use their own). The children should start taking photographs on the given theme. Encourage them to review their images on the camera, deleting any they don't like, and asking others to comment on the photos. Encourage the children to try some experiments with their camera, remembering the tips they've been given. Encourage the children to take some photos in landscape orientation and some in portrait orientation. Provide the children with support and encouragement as needed. Use questioning to help them understand why some photographs are more effective than others. As before, the children should review their images on the camera, sharing the pictures they've taken with others in their group and getting constructive, critical feedback. They should delete any photos they don't want. Back in the classroom or computer lab, demonstrate how to connect cameras or devices to a computer and how to store the images on the computer drive or school network. Explain that the images are stored as sequences of numbers, and all they're doing now is making a copy of these sequences from one type of computer memory to another.

4 Lesson 4 - Organising photos

Remind the children that in the previous step they copied their photographs from the camera, tablet or smartphone onto the computer drive or the school network. Ask them to find their photos. Show the children how to import their photographs to your chosen photo management software. Explain that the program makes it easy to organise photos and to make some changes to them. Encourage the children to explore the program's interface for themselves. Give them time to share what they discover with their classmates, and to try out others' ideas. Correct any misconceptions. Use a plenary for the children to show what they've discovered and then demonstrate any important features they've missed. Ask the children to review the photos they



uploaded. They should delete any they don't think are good enough. Demonstrate how to add captions and flags to photos. Ask the children to add a caption to each of their remaining photos, and add a star to their best photos. Provide time for the children to look through one another's photos, discussing how they decided on which photos to flag. Explain that it is possible to name people in photographs. The program then looks through the collection for photos it thinks have the same people in them. This is called facial recognition. Do the children think this is a good idea? If someone posted a photo with them in it somewhere online, how would they feel about being identified in the photo? This is one of the reasons why they should think very carefully before posting photos of themselves online, or allowing photos of themselves to be posted by others.

5 **Lesson 5 - Editing and enhancing photos**

Tell the children you will be showing them how to make changes to photos. Load the software and demonstrate how to crop a photo to reframe the subject, lose boring background, or place the subject one third of the way across rather than in the centre. Also demonstrate how to straighten a photo. Explain to the children that you're just creating instructions in the program and not actually changing the photo. Give the children time to experiment with cropping and/or straightening their photos. Show the children how to use the 'Commonly needed fixes' tool to make automatic adjustments to photos. Give them time to try it out on their photos. Do these fixes make much of a difference to the photos they took? Model using the lighting and color fixes to make colour changes to a photo, and the experiment with other changes, such as using soft focus for a portrait, or changing the photograph to black and white or sepia. Encourage the children to experiment with different settings, including combining one or more effects. Suggest that 'less is more', and that what they should aim to do is to enhance their photo rather than completely change it – but allow them to form their own judgements. The children should share their work, explain to one another how they've achieved particular effects, and get some feedback from others on their work. Give the children time to make further changes to their photos after they've looked at what others have done.

Learning Outcome/product

This unit will enable the children to: consider the technical and artistic merits of photographs, use a digital camera or camera app, take digital photographs, review and reject or pick the images they take, edit and enhance their photographs.

Assessment records	List only those children who have not achieved the expected outcomes				

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I can take photos.	
I can take photos that are in focus.	
I can take high quality photos.	
I can decide if a photo is worth keeping.	
I can edit photos.	
I can edit photos to make them look better.	