Holmesdale Infant School: Curriculum Overview for Computing

Nursery						
	Introduce e-safety in its simplest form e.g. children must ask an adult before going on the computer/must only use the games etc set up by the teacher Children to have access to a range of input/output technology throughout the year including toys with lights, sounds, movement. Children to have access to technology in the form of computers/tablets/cameras to suppor their independent learning e.g. games on the Interactive whiteboard to support letter formation, number work and phonics.					
Computing	**AUTUMN 1**	**AUTUMN 2**	**SPRING 1**	**SPRING 2**	**SUMMER 1**	**SUMMER 2**
Reception						
Topic	**All about us** **Seasons- Autumn**	**Bonfire night/Diwali/ Christmas** **Nativity story**	**Winter** **Chinese New Year**	**Space** **Spring, Easter**	**Dinosaurs**	**Summer**
Unit of work	**E-safety: Health and well being** Understanding rules that can keep us safe at home and in school- introduction to the internet and e-safety. Understanding what personal information is and the importance of keeping this private. **Using technology purposefully:** Use simple computer programme to play game to support learning	**E-safety: self-image** **Computer science:** What is a computer?	**Esafety:** **Safer Internet Day** **Using technology purposefully**- using cameras to take photos of my work	**E-safety: Privacy;** Recognising what personal information is. **Internet skills:** **Using technology ourposefully** Using a mouse to play a game. **Computer Science:** Giving simple instructions to a computer.	**E-safety: Copyright** Understanding that my work belongs to me. **Using technology purposefully:**	**Esafety:Online bullying** **Computer science:** Giving simple instructions to a computer.

	Year 1					
Topic	**Toys**	**Senses**	**Buildngs & structures**	**Castles**	**It's a wonderful World**	**It's a wonderful world**
Unit of work	**E-safety (Health & well being):** Understanding what the internet is and the importance of following our school 'safer' rules when we are using the internet devices in school. **Internet skills:** Introduction to simple key word searches to aid research (Swiggle). **Using technology purposefully:** Introduction of tablets/cameras to record their own learning	**E-safety: (Self image and identity):** Recogniing what to do if something makes me upset online. **Coding:** Introduction to algorithms using beebots. **Using technology purposefully:** Logging on to computer and Creating simple digital content	**E-safety (Internet safety Day)** **Internet skills:** Applying key word searches **Using technology purposefully:** Creating digital content and saving work.	**E-safety (Privacy and Copyright):** Understanding use of passwords and that work I create belongs to me. **Coding:** Espresso unit	**E-safety (Online bullying):** Recognising how to behave online **Internet skills:** Introduction to email as a form of communication online.	**E-safety:Online reputation;** Recognising that information can stay online. **Using technology purposefully:** Creating digital content with cross curricular links. **Coding:** Espresso unit

	Year 2					
Topic	**A Day in the Life A to B**	**A to B**	**Time Travellers**	**Time Travellers**	**How are you?**	**Insects and Flowers**
Unit of work	**E-safety: Health & well being & self image-** Identifying where to go for help if concerned about something on the internet. **Internet skills:** Navigating around web pages and explaining the difference between things that are true and made up and understand that some things on internet may be made up.	**E-safety: Privacy** Using passwords & understanding how to keep own information safe. **Internet skills:** Understand and follow rules for keeping personal information safe. **Coding**: Espresso unit	**E-safety: Safer Internet Day** **Internet skills:** Key word searching & reliability of information.Managing information online. **Using technology purposefully:** Retrieving stored content Combining digital content	**E-safety: Copyright** Recognsing that content on the internet can belong to others. **Email:** Using email to communicate & understanding the safety rules of communicating online. **Coding**: Debugging programmes (Espresso)	**E-safety: Online bullying** Understanding how bullying makes someone feel and how to get help. **Coding:** Espresso unit-predicting behaviour of simple programmes **Using technology purposefully:** Creating cross curricular content	**E-safety: Online reputation** **Using technology purposefully:** Combining digital content and organising work in a purposeful way.

Holmesdale Infant School

Knowledge and Skills Progression

Subject area: Computing

Key Skills: Computer Science, Using technology purposefully, Internet skills, E-safety

	Nursery	Reception	Year 1	Year 2
Knowledge Overview (Overview of hardware and software used in each year group)	Toys with inputs & outputs e.g. noisy toys, easi speak microphones, tablet, interactive whiteboard	Variety of online games to support other areas of the curriculum e.g. top marks. Tinkering objects/toys with inputs (buttons) and outputs e,g sounds/lights/movement Digiduck Jessie & Friends	Espresso Coding units (from Sept 2021) Beebots Jessie & friends Smartie the penguin Hector's world SEESAW	Espresso Coding units (from Sept 2021) Scratch Junior (Computer Science) Espresso e-safety videos Hectors world Lee and Kim SEESAW
Computing Skill	Nursery	Reception	Year 1	Year 2

Computer Science	Play and explore with a range of technological toys that have an input and output e.g. toy washing machines, easi speak microphones, toys with flashing lights/noises.	I know what a computer is. I know that a computer can be given instructions. I can give simple instructions to a computer e.g. click the mouse to move something on the screen. (use twinkl 'what is a computer?' ppt and look at some of the tinkering equipment for actual everyday examples of computers)	**Coding:** I understand what an algorithm is. I can create a simple program using a beebot. *Using programmable toys (bee bots).* Develop and record sequences of instructions as an algorithm	**Coding:** I can understand that algorithms are implemented as programs on digital devices. (Scratch Junior/Ipads) I can understand that programs execute by following precise and unambiguous instructions. Robot activity I can debug a simple program. I can use logical reasoning to predict the behaviour of simple programs. "I know my sprite is going to… because I have included a Go when green flag is pressed block"
Computing Skill	**Nursery**	**Reception**	**Year 1**	**Year 2**
Using technology purposefully	Begin to be aware of/use with support technology for a purpose e.g. engage with game in interactive whiteboard, help an adult to take a photo of their work.	**Word processing/presenting/publishing:** I can use a simple computer programme e.g. to play a game **Cameras/devices** I can take a photo of my work e.g. push the button to take the photo I can name/identify some digital devices e.g. tablet, smart phone, camera. I can recognise that a range of technology is used at home and in school. I can select and use technology for particular purpose e.g. a camera to take a photo.	**Word processing/presenting/publishing:** I can log on to a school computer using my own login. I can save my work and give it a suitable name. I can open work that I have previously saved. I can create simple digital content e.g. a simple word processing, add a picture to a document or use a paint programme to create a picture. (SEESAW- to upload/create digital content) I can uses technology safely. (In conjunction with the E-safety overview.)	**Word processing/presenting/publishing:** I can retrieve stored content e.g. open up own previous work by finding file name. I can create cross curricular work combining text and graphics. I can organise my work in a purposeful way. I can combine photos, sound and video to present work. (SEESAW to use voice notes, photos and videos to share work/content) I can use technology respectfully. (incl: understanding online bullying- see e-safety overview)
Computing Skill	**Nursery**	**Reception**	**Year 1**	**Year 2**
Internet skills	With support- Access a game/information from a website that a trusted adult has shown them e.g. using an interactive game Be aware that there are rules for	**Using the internet:** I can understand that I can use the internet to find things out. I can name some devices I can use to access the internet.	**Using the internet: (linked to e-safety 'managing information online'.** I can use the internet to find things out- use a search engine with a simple keyword search. I can tell an adult if something comes up that I am unsure about.	**Using the internet: (linked to e-safety managing information online.** I can use a key word search to find information. I can navigate around a web page e.g. go back/forward I can explain the difference between things that are true and made up and understand that some things

	using the computers and that these rules are there to keep us safe.	I can give some examples of personal info and who I can share this with. I can give simple examples of how I can use the unternet to find information e.g. voice search	I can recognise/name common uses of IT and the internet beyond school. I can identify personal information and know which information can be shared online. **Using email:** I can use the internet with adult support to communicate with people I know. I can explain why it is important to be considerate and kind to people online.	on internet may be made up. I can identify where to go for help when I have concerns about content/contact on the internet. I can understand and follow rules for keeping personal information safe online including using simple passwords. **Using email (linked to e-safety 'Online relationships':** I can use the internet to communicate with people I don't know well (e.g. email a penpal in another school/country). I can give examples of how I might use tech. to communicate with others I don't know well.
Computing Skill	**Nursery**	**Reception**	**Year 1**	**Year 2**
E-safety Internet Matters Safety net Kids Kiddle Hectors World Did you Know? Education for a Connected World Jessie & Friends Espresso Online safety Lee & Kim	Understand that they need to ask an adult if they want to go online. Use trusted sites as directed by an adult.	I can recognise that I can say 'no'/ 'please stop'/ 'I'll tell'/ 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset. I can explain how this could be either in real life or online. (Jessie & Friends episode 1) I can recognise some ways in which the internet can be used to communicate. I can give examples of how I (might) use technology to communicate with people I know. Digiduck? I can identify ways that I can put information on the internet. I can describe ways that some people can be unkind online. I can offer examples of how this can make others feel.	**Self image/identity:** I can recognise that there may be people online who could make me feel sad, embarrassed or upset. If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust. Recap Jessie & Friends episode 1 (smartie penguin Kidsmart episode/ppt 2) I can explain why it is important to be considerate and kind to people online **Online reputation** I can recognise that information can stay online and could be copied. I can describe what information I should not put online without asking a trusted adult first. (Jessie & Friends episode 2) **Online bullying:** I can describe how to behave online in ways that do no upset others and can give examples.	**Self image/identity** I can explain how other people's identity Online can be different to their identity in real life. (Jessie & Friends episode 3) I can describe ways in which people might make themselves look different online. (Espresso video online/offline) I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help. **Online reputation** I can explain how information put online about me can last for a long time. I know who to talk to if I think someone has made a mistake about putting something online. (Hector's World video 6) **Online bullying** I can give examples of bullying behaviour and

| | | | I can identify rules that help keep us safe and healthy in and beyond the home when using technology.

I can give some simple examples.

I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location.

I can describe the people I can trust and can share this with I can explain why I can trust them.

I know that work I create belongs to me.

I can name my work so that others know it belongs to me. | **Health & well being:**
I can explain rules to keep us safe when we are using technology both in and beyond the home.

I can give some examples of some of these rules.
(Acceptable use policy- school)

Privacy/security:
I can recognise more detailed examples of information that is personal to me (e.g. where I live, my family's names, where I go to school).

I can explain why I should always ask a trusted adult before I share any information about myself online).

I can explain how passwords can be used to protect information and devices. (hector's world episodes 4-5)

Copyright/ownership
I can explain why work I create using technology belongs to me. I can say why it belongs to me (e.g. 'it is my idea' or 'I designed it').

I can save my work so that others know it belongs to me (e.g. filename, name and content). | how it could look online. (Espresso online/offline video)

I can understand how bullying can make someone feel.

I can talk about how someone can/would get help about being bullied online or offline. (Lee and Kim episode 3))

Managing online information (linked to using internet searches in 'internet skills')
I can explain why some information I find online may not be true. (smartie penguin PPt 1- upsetting images/unreliable info/talking to strangers)

Health & well being
I can explain simple guidance for using technology in different environments and settings. (Lee & Kim episode 3)

I can say how those rules/guides can help me. (Espresso staying safe online video and school acceptable use policy)

I can describe how online information about me could be seen by others.

Privacy/security
I can describe and explain some rules for keeping my information private. (Lee and Kim episodes 1&2) or (Espresso 'passwords' video for recapping rules)

I can explain what passwords are and can use passwords for my accounts and devices.

I can explain how many devices in my home |
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				could be connected to the internet and can list some of those devices.
				Copyright/ownership I can describe why other people's work belongs to them. I can recognise that content on the internet may belong to other people.