Mendell Primary School

Aspire   Challenge   Achieve

Medium Term Plan Design Computing

Year Group: 6	**Term:** Autumn #1 2021	**Teacher:** Dionne Sinatti and Sarah Wearing	**Subject lead:** Justin Cowley	**Overview: Online safety and an introduction to programming:** Digital citizenship (Personal and private information) Scratch programming
Links to other learning: PHSCE	**Prior Learning:** In Y5 children used loops, events and conditionals together to create a desired outcome	**Future Learning:** In Y7	**Risk Assessment:** Safeguarding	**Teacher CPD:** Please read the CEOP online safety toolkit prior to the lessons.

	Learning Intention	Real Life Links	Lesson Outline (Key Questions in colour)	Resources	Vocabulary	Lowest 20% Adaptations
1 - 3	- I understand the difference between personal and private information. - I know the dangers of sharing private information online		**Digital Citizenship** Ask: What types of information do you think are okay to share publicly online such as on an online profile that others will see? ○ Interests and favorite activities ○ Opinions about a movie ○ First name ● What are some examples of websites where you must register in order to participate? ○ Social networking sites ○ Video-sharing sites ○ Youth discussion sites ○ Ask-an-expert sites ○ Game sites Write the names of the websites on the board. Explain that it's important to know that sharing some kinds of user information can put you and your family's privacy at risk. Project for the class, or have students go online to Neopets, Nickelodeon, or BookAdventure. Do not ask the students to sign up for these sites! Discuss with the children the kinds of information that each website requires or requests before the users can participate. Ask: What information is required? Why do you think it is required?	Large screen to show video	Identity Theft - When a thief steals someone's private information in order to pretend to be that person. Personal Information - Information that is about you, but can't be used to identify you. Private Information - Information that can be used to identify you. Register (Online) - To enter your information in order to sign up and get access to a website.	

- First name, username, password, password hint, gender, the state you live in, parent's permission, etc. This information is required because it helps distinguish one person from another. Or perhaps the website is keeping a record of who uses it.
- **What information is optional? Why do you think it is optional?**
    - Parent's email, birthday, state, country, gender, etc. This information is likely optional because the website does not require it for payment or to distinguish people. Or perhaps the website wants to keep track of this kind of information.
- **Why do you think websites ask for this kind of information?**
    - They want to get people to pay in order to use the site, they want to send messages to people who are signing up, or they want to try to sell things to those people.

Point Out that you do not have to fill out fields on websites if they are not required. Required fields are usually marked by an asterisk (*) or are highlighted in red.

Explain to the children that some kinds of information are generally safe to share on the internet and some are not. However, the information that's considered safe should not be shared one-on-one with people the children don't already know offline.

Define:
- Personal Information: Information that can't be used to identify you.
- Private Information: Information that is about you and can be used to identify you.

Emphasize that personal information is usually safe to share online. Private information is usually unsafe to share online, meaning students should get permission from a parent or guardian before sharing this kind of information.

Share the following examples of information that is safe or unsafe to share:

SAFE - Personal Information	UNSAFE - Private Information
- Your favorite food - Your opinion (though it shoud be done respectfully) - First name (with permission)	- Mother's maiden name - Social Security number - Your date of birth - Parents' credit card information - Phone number

Define: Identity Theft: When a thief steals someone's private information in order to pretend to be that person.

Explain that an identity thief uses private information to pretend to be the person whose identity he or she has stolen. Once the thief has taken someone's identity, he or she can use that person's name to get a driver's license or buy things, even if the person whose identity they stole isn't old enough to do these things! It's often not until much later that people realize their identity has been stolen. Identity thieves may also apply for credit cards in other people's names and run up big bills that they don't pay off. Let children know that identity thieves often target children and teens because they have a clean credit history and their parents are unlikely to be aware that someone is taking on their child's identity.

Emphasize the difference between private information (which can be used to steal your identity) and personal information (which cannot be used to steal your identity). Invite students to answer the following questions (write their answers on the board):

Ask: What kinds of private information could an identity thief use to find out and steal your identity?
- First and last name, postal address, email address, phone numbers, passwords, credit card numbers, Social Security number, mother's maiden name.
- **What kinds of personal information could you share about yourself without showing your identity?**
    - Your age, gender, how many siblings you have, your favorite music, your favorite food, what pets you have, the name of your pet, your opinion about something.

			Explain to children that on the internet, people you interact with could be your friends next door or strangers who live on the other side of the world. Because it's hard to know the intentions of people who you've never met before, it is best to remain cautious when sharing your information. You wouldn't give strangers your private information in the real world, and you need to be just as careful when you're online.
			Remind children how important it is each time they share information online to stop and think: "Am I giving out information that I should keep private?" Point out that it can sometimes be safe to give out some private information. For example, a website might ask for your birth date or email address. But students should always ask their parent or guardian before giving out private information.
			
			Distribute the Protect Yourself Student Handout and have children complete the activity. Review the answers as a class.
			
			Distribute the All About Me Handout. Have children write down all the personal information they would like to share on a public profile in an online community. Emphasize that even though personal information is safe to share online, it is okay to choose not to share it. Remind students that everything on the list should be safe to share; none of it should be private information that can put their identity at risk.
			Encourage children to share their lists with the class.
			Ask: Is there anything on the lists that could be used by an identity thief? Why?
			     o Guide children to explain their answers and encourage them to use the vocabulary terms.
			
			Use the following questions to exit the lessons:
			Ask:
			  • What is identity theft?
			     o Using someone else's private information to pretend to be that person.
			  • How do personal information and private information differ?
			     o Private information, such as a Social Security number, is unsafe to share. It should be kept private so that identity thieves cannot use it. Personal information, such as your favorite food, cannot be used by identity thieves and is safe to share. Even though personal information is usually safe to share online, you might choose not to share this information, and that's fine.
			  • What would be a good rule for kids about giving out private information?
			     o They should not share it online without the permission of a teacher, parent, or guardian.			

4 - 6	- I can apply my programming knowledge to create an online game		**Coding** **Scratch** **Teacher to read full lesson plan pdf (see resources http://code-it.co.uk/scratch/crabmaze)** Children are to create a program to steer a crab around a maze using keys on the keyboard. If the crab touches the walls of the maze it is electrocuted and the game ends. Crab maze can be extended to include multiple levels. You can also add scoring coins using a variable to hold the score. It includes forever loops, conditional if loops, broadcast commands and Cartesian coordinates. Open a web browser (Chrome, Safari) and navigate to http://scratch.mit.edu/projects/22804830/ Play the game whist pupils watch (don't show them the code) ask them to work in pairs to list all the things that they will need to make and all the things they will need to make it do. After pupil pairs discussion, collect and list these things. Explain that we have decomposed the game, broken it up into smaller chunks to solve them separately. Explain that this is something programmers do to help make problem solving manageable and sometimes so that large groups of programmers can work on the same project at the same time. Refer to their list as you guide them through creating the game. For detailed planning, follow planning sheet in resources folder.	Large screen to show video		