Computing - Year 5 and Year 6

Below are the computing units that children will study across Year 5 and Year 6 at The Rydal Academy. They are split into half terms or terms depending on the length of the unit. There is a brief explanation of each focus area and suggestions for activities that you can do with your child at home to support their learning.

	Year 5	Year 6
Autumn 1	**How to stay safe when Live Streaming** Children will learn about the dangers of live streaming and that if they want to be a vlogger, they should never live stream but record it first, then upload. Ask your child to tell you the dangers of creating, and watching, live-streamed videos and discuss support strategies, together, if they ever see something upsetting and need help. **Organising files and folders** Children will focus on how to name files and folders and where, and how, best to save their documents and images on the school network. Can they explain/model the best way to save files and folders on devices at home? **Advanced Logo** Children will learn about using a program called MSW Logo. They will input code to create images and shapes on the screen. Ask your child to write code (on a piece of paper) to create a square or even a circle.	**Privacy settings on Social Media** Children will learn about how to keep their Social Media safe through the correct use of settings. If your child already has Social Media (age restriction is 13) then use this time to check their settings with your child and discuss. If your child does not have Social Media, then ask them to check your settings or just discuss together so that the child is familiar with settings on different types of Apps. **Create 'Pico drop' on Scratch** Children will be developing all of their programming skills to create a 'Pico Drop' game where Pico continuously falls down the screen, landing on platforms and she goes. Pico will be controlled using the arrow keys and will broadcast game over if Pico touches any side of the screen. There will be different levels to the game and a timer to show the user how long they managed to play for. If possible, allow your child to demonstrate their skills using https://scratch.mit.edu/
Autumn 2	**Online challenges and chain letters** Children will learn about safe and dangerous challenges as well as, how safe challenges can become dangerous. They will also learn about why chain letters are sent around and that they are fake and should be ignored. Ask your child to discuss the dangers of challenges and create a strategy, together, for if they would like to complete a challenge safely at home. **Why do we need a strong password?** Children will learn about software, and strategies, that are used to hack people's passwords to help them create a strong password for themselves. Have a go at creating strong passwords together and use this website to check how strong they really are: https://random-ize.com/how-long-to-hack-pass/	**Online Reputation** Children will learn about how their 'online life' can affect their 'real' life, school and future if they do not behave responsibly and appropriately (digital footprints). Ask your child to explain how they can protect their 'digital personality'. **Stop Motion** Children will learn how to create images and manipulate them into an animation using Scratch. They will take photos of their chosen objects, move them slightly then take another photo. Then using Scratch, they will put their photos together as an animation and include billboards between some frames. If possible, use https://scratch.mit.edu/ to allow your child to demonstrate their skills. **Creating a Microsoft Form** Children will further develop their collaborative skills by creating a Microsoft Form to collect information, from their peers, and look at the results. Ask your child to explain what a Microsoft Form is. If you have access to Microsoft 365 or Gmail, your child could teach you how to create a Microsoft or Google Form.
Spring 1	**Abuse Online** Children will learn about all different types of bullying; online and offline. Ask them which is the most common bullying for children and teenagers and most importantly, discuss how to get support for themselves or their friends, if they are affected by bullying. Use these websites to help: https://www.internetmatters.org/ https://www.antibullyingpro.com/parentsguardians https://www.nspcc.org.uk/what-is-child-abuse/types-of-abuse/bullying-and-cyberbullying/ **Introduction to HTML (Notepad++)** Children will learn that 'behind' the web browser is a lot of HTML code, as this is how the computer 'thinks'. They will have a go at copying some code to create their own version of a 'Space' website. Ask your child to show you what a 'Nav bar' is and what it does, as they will be creating one on their website. **Inserting and using Tables** Children will learn about when they should use a table in a document; how to create and format a table. Ask your child to create a list of when it is appropriate to use a table. If possible, allow them to demonstrate how to create and format a table on a home device.	**Impact on confidence** Children will learn about filters and enhancements used online and the affect it has on people's own body image. Discuss your child's body image with them and prompt them to think about the positive aspects of themselves. You could even write/create posters about the good things about everyone in the house/family. Use this website if your child needs support with their body image: www.themix.org.uk **Fun with CSS (coding to style a webpage)** Children will learn how to style HTML coding for a website by changing the shadow of text, adding background images, scaling images, using transitions and creating animations. Ask your child to access a website such as BBC Bitesize and tell you about how they think the CSS was created. For example, the images, different text and animations or transitions.

Spring 2	**Targeted Online Content – Clickbait** Children will learn about how Clickbait tries to entice the user to click on certain things and how sometimes this can lead to fake news, but it can also lead to viruses on your device. Ask your child how they know something is Clickbait by giving you examples. You could even search for examples together safely on the internet. **Introduction to spreadsheets** Children will learn the basics of Microsoft Excel including adding figures together using a formula and inputting data to convert to a graph. If possible, allow your child to demonstrate their skills on Microsoft Excel at home.	**Violence Online** Children will learn how possessions of weapons online can be glamorised, how online violence can quickly escalate to offline violence, and to learn some of the laws and sentences relating to violence on, and offline. Ask your child to explain what they know about the laws against violence, including carrying a weapon. Discuss how people may misinterpret somebody who is taking photographs with weapons, and how this can become very dangerous.
Summer 1 **Summer 2**	**Grooming (Alright Charlie)** Children will learn about grooming; what it is, the warning signs and where to go for help if they are being groomed. Ask your child to explain what they know about grooming. Create a strategy, at home, to help your child if they are ever worried about grooming. Use the NSPCC website for support on grooming: https://www.nspcc.org.uk/what-is-child-abuse/types-of-abuse/grooming/ **Introduction to App Inventor** Children will learn how to create their own App using http://ai2.appinventor.mit.edu/ . They will learn how to use images, include speech, move images around, create a drawing App including different colours and sizes of paint brushes. If possible, allow your child to demonstrate their skills using the website above or ask your child to think up a new app. This could be a game, fitness or travel app for example. Ask them to create a design for the app by breaking it down and sketching out the different screens the user will see. Decomposing the app down into the different screens allows your child to create a design to illustrate how their app would work.	**In the box (Safer gamer) - Visitor** Children will learn about how to stay safe when gaming. Ask your child to explain how to stay safe when they are gaming and where to go for support if they are worried about something when gaming. **Excel Programming** Children will develop their programming skills using Microsoft Excel by learning how to record macros, create sub procedures, calculate areas of shapes, change text and add borders to a range, create If statements and For-Next loops and debug their work if needed. If you have Excel at home, ask your child to demonstrate their skills. **Sending an Email with an attachment** Children will use Microsoft Office 365 to send emails, learn the etiquette of emails and why the 'Subject' is important. They will then send and receive emails with attachments and discuss the dangers of opening attachments from people they don't know. If possible, allow your child to demonstrate their skills and discuss what could happen if they open an attachment from an unknown user.