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| Tomorrow’s World | Engage  24.2.20 | Develop  2.3.20 | Develop  9.3.16 | Develop  16.3.20 | Develop  23.3.20 | | Express  30.3.20 |
| Maths  Year 3 | Fractions | Fractions | Fractions | Measurement: Mass and capacity | Measurement: Mass and capacity | | Measurement: Mass and capacity |
| Year 4 | Fractions | Fractions | Fractions | Decimals | Decimals | | Decimals |
| Year 5 | Decimals | Decimals | Measurement: converting units | Measurement: perimeter, area | Statistics | | Statistics |
| Year 6 | Algebra | Algebra | Measurement: converting units | Measurement: perimeter, area | Statistics | | Statistics |
| Speaking and Listening |  | Spoken language  Listen and respond confidently to others, paying close attention to what is said in an increasing range of contexts.  Imagine a computer virus has infiltrated the school network. Listen to and record staff members (who work in the school office or computer support) talking about the effect of the virus.    Note  Children could work in groups to interview school staff and investigate how the virus infiltrated the school network and what damage it caused. You will need to brief staff before they speak to the children. Problems caused by a virus might include lost personal data, a deleted hard drive, poor computer performance and corrupted files.  En SL 1 Listen and respond appropriately to adults and their peers.  En SL 7, 9, 11; PSHE 5e, 5f; Co 4, 6 | Spoken language  Independently articulate and justify answers, arguments and opinions.  Discuss the type of information they think is needed on a school website. Study their own and other schools’ websites to see how their ideas are similar or different. Express a personal view by explaining what they like and dislike about the school websites they visited. Use the correct terminology for specific features of a website. Look closely at their own school website to identify where information is out of date or needs changing.    Note  Give the children a list of links to other school websites to visit. Remind them about following e-safety rules and using the web safely. Tell the children to add important terminology to their wiki glossary, including words and phrases such as header, tab, menu, thumbnail, dropdown menu, homepage, widget, social or news feed, footer and banner.  En SL 4 Articulate and justify answers, arguments and opinions.  En SL 1, 3, 5, 6, 7; Co 4, 5, 7; En W C 1b | Spoken language  Give well-structured descriptions, explanations and narratives for different purposes, including for expressing complex feelings.  Hold a meeting with the headteacher to share their ideas about the school website, including possible changes. Present their ideas formally and listen to the headteacher’s feedback. Summarise the conversation and make a list of any agreed actions.    Note  The children will love talking to the headteacher about their ideas. Ask your headteacher to email the class and formalise their feedback.  En SL 5 Give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings.  En SL 6, 8, 10; En W C 1b; PSHE 5e; Co 4 | Top Secret  Spy School:  MI99 are setting up a new school for young people who are interested in espionage. Does that sound like you? Then shhh. Come closer.  They would like you to design a website that gives parents the information they need to know about Spy School. What pages should the website have? What will it look like? How will you know if other people will be able to use it effectively?  Find some friends you can trust and work together to plan, design and create a Spy School website. Don’t forget that pages need to follow the same theme, design and identity!  Good luck, special agent. We’re counting on you.  Yours secretively,  Mr Pink  Headteacher, Spy School  Writing  En W C 1b Note and develop initial ideas, drawing on reading and research where necessary.  Computing  Co 5 Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  Co 4 Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.  Co 6 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.  Co 7 Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.  D&T  DT D 2 Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.  DT E 2 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.  PSHE  PSHE 5f Develop relationships through work and play (e.g. taking part in activities with groups that have particular needs, such as children with special needs and the elderly; communicating with children in other countries by satellite, email or letters).  List common features of school websites. How might they be different to a spy school’s website? Make a concept map on an IWB to record your ideas.  Use Weebly to start setting up your website. What name will you give your site? Can you be creative with the espionage theme?  Create a homepage and write an introductory sentence or paragraph to tell visitors what your site is about. Use Weebly’s drag and drop tools to publish your paragraph to your homepage.  Work in groups to make a list of pages for your site. Make sure you include an ‘About’ and ’Contact’ page then add pages that show it is a school for spies, like ‘Gadgets’, ‘Special Agents (teachers)’, ‘Training’, and ‘Lunch Menu’.  Research the structure of websites to create a sitemap that shows how your pages link to the homepage and each other. Work in your group and use pen and paper or an IWB to design your sitemap.  An effective website should have a clear identity. It helps if each page has similar design features. Look at different Weebly themes, list their features and choose one to use for your website.  Collect and prepare content for your group’s website. Write text for each page and search online for useful images, animations, videos and sound clips. Save your work in a digital folder.  Start adding content to your homepage in Weebly using the drag and drop tools to add images and text. Will a video or slideshow help parents understand the aims of the Spy School? Add, remove and experiment!  Need to email your technology expert for help with your website? Outline specific questions that you need answering or practical problems they could solve.  Remember e-safety rules and be aware of copyright issues as you create your website. Maybe you could add a CEOP button to your homepage?  Add the other pages on your site and arrange them according to your concept sitemap. Add content to your pages, including hyperlinks to help visitors navigate the site.  Is your site ready to show Mr Pink? Better test it first. Hold a focus group and ask potential visitors to complete tasks on your site, such as find its address or learn about a specific gadget. Watch them using the site and make changes based on their feedback.  Looking good! Send an email to Mr Pink with a link to your finished website. Don’t forget to look out for his response. It’s top secret!    CONGRATULATIONS! You have completed your Innovation Challenge. | | Spoken language  Give well-structured descriptions, explanations and narratives for different purposes, including for expressing complex feelings.  Search online or the iTunes store to find and listen to a range of podcasts on different subjects. Consider the benefits of a podcast compared to broadcast radio and discuss why they are increasingly popular. Share the podcasts they have listened to with the group and say which was their favourite and what they found out.    Note  Much like a blog is a series of blog posts, a podcast is a series of audio or video episodes that people can subscribe to, listen to online or download via the internet. Most people listen to podcasts on their computer or portable media player. Subscribers get new episodes automatically when they are published. The most popular podcast directory is part of Apple’s iTunes store. You can download and install iTunes for free.  Find appropriate episodes to download in advance of the lesson, avoiding podcasts with an ‘explicit’ label as these will have unsuitable content.  En SL 5 Give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings.  En SL 1, 4, 6; Co 5, 7  Spoken language  Ask questions that challenge and also show sensitivity to the ideas and views of others.  Invite a podcaster into school to talk about and answer questions on how they prepare for an episode. Work in groups to come up with and collate ideas for a podcast of their own that they could publish via the school website. Make notes to record their ideas and share them with the class.    Note  The word podcast is a play on the words ‘broadcast’ and ‘iPod’, Apple’s popular portable MP3 player. You can listen to podcasts on a computer or any device that plays MP3s. If you would like the children to subscribe to their favourite podcasts, they will need a specific app or piece of software, such as iTunes (Windows, Mac) or Instacast (iPhone, iPad).  En SL 2 Ask relevant questions to extend their understanding and knowledge.  En SL 1, 6; En W C 1b; PSHE 5e, 5f  Spoken language  Identify the audience for/purpose of a range of text types, making features clear and establishing the appropriate style.  Write a final blog post for the class blog and include their podcast episodes for parents and carers to listen to. Summarise what they have learnt during the project and include their thoughts on the future of technology in schools and everyday life. Ask parents to give their feedback via the comments section of the blog post.    Note  Most blogging platforms allow people to post comments. If for some reason this is not possible, ask parents and carers to email their feedback.  En W C 1a Identify the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own.  En W C 3a; Co 4, 6, 7; En SL 11 |
| Reading | DT E 1 Investigate and analyse a range of existing products.  Sc WS 2, 3; DT TK 2; Co 6  D&T  Investigate the design features (including identifying components or ingredients) of familiar existing products.  Explore levers, their function and everyday uses (such as seesaws, nail clippers and bottle openers). Investigate how using a lever can help to lift heavy objects.    Note  Provide small groups with a rigid ruler, a pencil, a brick or heavy wooden block and an elastic band or force meter. Place the ruler on top of the pencil to create a seesaw, ensuring one end of the ruler overhangs the desk. Place the brick or block on top of the other end of the ruler. Loop the elastic band or force meter over the overhanging end and measure the stretch of the elastic band or the force needed to pull the ruler down and lift the brick or block. Move the position of the pencil (fulcrum), closer and further away from the brick, measuring the stretch or force required each time. Record results on a spreadsheet. DT D 1 Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.  Sc FM 1; DT M 1, 2; DT E 2  D&T  Make realistic plans identifying processes, equipment and materials needed.  Make simple spinners using cardboard discs with a cocktail stick or pencil pushed through their centres. Explore different materials to improve the spinners and trial them on different surfaces. Does the surface affect how long they spin? Which material produced the best spinner? Should the end of the shaft be sharp or blunt?    Note  Whilst the children test out the spinners, talk about the forces involved. Which force keeps the spinner spinning? Which force causes the spinner to slow down and stop? Inertia is the force that keeps an object at rest, or keeps it moving unless something interferes with it, such as the opposing force of friction. DT M 2 Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.  Sc WS 3, 7, 9; DT E 2; DT M 1; DT D 1  D&T  Plan which materials will be needed for a task and explain why.  Play with a large playground parachute, experiencing what happens as they move it up and down. Describe what they can feel happening. Make their own mini parachutes using a selection of materials such as plastic bags, nylon and paper. Tie small figures or plasticine to the parachute and see what happens when the items are dropped from different heights.    Note  Very strong nylon fabric makes the best parachute. Children could record the time taken for their parachutes to fall to the ground. Discuss the forces at work, asking them to describe what force(s) might oppose the downward pull of gravity.  DT M 1 Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing), accurately.  DT M 2; DT E 2; DT TK 2  D&T  Select the appropriate tools and explain choices.  Make a simple cart using a cardboard box, dowelling and different types and sizes of wheels.    Note  Allow children to test their carts/cars on slopes (see Science below).  DT D 1 Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.  DT E 1, 2; DT D 2; DT M 1, 2  D&T  Share ideas through words, labelled sketches and models, recognising that designs have to meet a range of needs, including being fit for purpose.  Design and make a magnetic travel game. Conduct market research to find out what board games are popular amongst friends and family and use this information to inform their design. Test their own games whilst travelling with parents and feedback on their effectiveness.    Note  Self-adhesive magnetic strips are widely available from educational, office or craft suppliers. Highlight key vocabulary related to the theme including attract, repel, magnetic field, poles, opposite, same, repulsion and attraction.  D&T  Plan which materials will be needed for a task and explain why.  DT M 2 Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.  DT M 1; Sc WS 3  Design and make wind chimes from old metal tubing, cutlery, keys, chains and other scrap metal objects. Experiment with different pieces of pipe, exploring how the length, hole bore and type of metal affects the sound it generates when tapped with another metal object.    Note  Pipes will need to be drilled with holes so they can be suspended using wire or string. Children will need help with this. DT E 2 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.  En SL 5; En W C 1b, 2d  D&T  Suggest improvements to products made and describe how to implement them (taking the views of others into account).  Evaluate their companion designs, reflecting upon how successful they were. Refer back to the original brief and summarise how far they met its requirements. Suggest ways of improving their original designs.    Note  Display their evaluations alongside their models and invite parents and carers into school to see their work.  Read and compare a selection of example emails and make a note of their features, including how formal they are and the way the text is presented. Write and send a class email to the special guest. Thank them for their presentation and ask them to stay in touch and offer advice throughout the project. Read examples of ‘spam’ and analyse the language and techniques used by spammers to try and convince people to open and respond to their emails. Research and consider how spam emails can be harmful. Learn about e-safety when it comes to emails, and how people can avoid malware, such as viruses, worms and spyware.    Note  Discuss different types of email and why it is such a popular way to communicate. Ask the children to make a list of things they can do with an email including send a message, transfer files, share digital photos and send audio and video files. Anyone can set up an email address for free and it allows them to communicate with people all over the world. Ask the children to think about and discuss the disadvantages of email, including how people can sometimes misinterpret written messages.  En R C 1e Identify and discuss themes and conventions in and across a wide range of writing.  En R C 2f, 3; En SL 7, 9; Co 4, 6, 7; En W C 1b  Reading  Summarise the main ideas from more than one paragraph, identifying key details that support the main ideas.  Read a range of blog posts written by children and adults. Discuss how blogs and blog posts are similar and different to a traditional diary. Compare blog posts that cover a similar topic and explain which they prefer in terms of style or tone. Choose a favourite blog post and summarise its main ideas, identifying key points and important sentences. Use what they have observed and discussed to create an ‘ingredients list’ for writing a good blog post. Work as a class to decide what the blog post will be about. Make a list of suggestions that shows everyone’s contributions.    Note  Children could use a wiki to create a collaborative and interactive glossary of computing terms and abbreviations, such as IP (internet protocol), URL (uniform resource locator), LAN (local area network), blog, GPS (global positioning system), QWERTY, USB (universal serial bus) and CGI (computer-generated imagery).  En R C 2e Summarise the main ideas drawn from more than one paragraph, identifying key details that support the main ideas.  En R C 1e, 8; En W C 1a; En SL 5; Co 4, 6 , 7 | Reading  Compare themes and conventions within and across text types, with growing confidence.  Use the web to find out about computer malware, including viruses, worms and spyware. Generate questions based on their research and discuss how they might be able to find answers. Highlight any technical vocabulary found in their research and use an online dictionary to clarify what the words mean before adding them to their wiki glossary. Use the terms when writing about computer malware. Read media reports, watch video clips and read quotes from people or companies that have been affected by a cyber-attack. Identify methods and techniques that people can use to protect their computer, including firewalls, antivirus software, and updating the operating system regularly.    Note  Significant and well-known cyber-attacks are well documented in news reports and online. You could ask the children to find out about the ILOVEYOU worm and the Melissa virus. Encourage them to talk about how it feels to have their privacy invaded.  En R C 1e Identify and discuss themes and conventions in and across a wide range of writing.  En R C 2b, 2e; Co 5, 6, 7; En SL 1, 6, 9 | Reading  Explain and discuss their understanding of what they have read through formal presentations and debates (with a maintained focus on the topic and using notes where necessary).  Search online for guidance on how to make an effective website. Read a range of accounts, compile a list of dos and don’ts, then write a short paragraph about each item, explaining why it is important. Share their findings with the group. Examine responses from parents and carers to their survey in the previous activity. Compare the responses to their own research into effective websites.    Note  Key features of a successful website include a strong and clear message, easy navigation, engaging design and a friendly tone. Encourage the children to use what they have learnt, including the responses from parents and carers, to start thinking about how they could improve and develop the school website.  En R C 7 Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary.  En R C 2b, 2e, 3; Co 5, 7; En W C 1b, 2d | Reading  Be familiar with, write and use book reviews to guide their own reading and to recommend their choices to peers.  Search online bookshops to find examples of children’s books and stories from the thriller genre. Read reviews and make a list of books that they find interesting and would like to read. Present their findings and choices to the class and explain their reasons for choosing each book. Discuss the rise of e- reading and how the way people read books is changing. Offer their own view on e-reading and talk about how they prefer to read.    Note  Provide a real (or imaginary) budget and vote for books they would like to buy for the school. Or visit a local library and borrow the books instead.  En R C 1d Recommend books that they have read to their peers, giving reasons for their choices.  En SL 4, 5, 11; En R C 1e, 6, 8; En W C 1b; Co 5, 7  Reading  Make inferences about authorial intent, characters and aspects of plot, using evidence from the text.  Read the first chapter of Stormbreaker by Anthony Horowitz as a class. Discuss the title of the first chapter, Funeral Voices, and decide what they think it will be about. Predict what will happen in the rest of the story by finding clues in the text and reading the blurb. Work with a partner to discuss the main character, Alex Rider, and describe how he is coping with his uncle’s death.    Note  Children could take it in turns to be Alex Rider in the hot seat and respond to questions from the class in character. Ask the children to read up to Chapter 6, Toys Aren’t Us, before the next lesson.  En R C 2c Draw inferences such as inferring characters’ feelings, thoughts and motives from their actions, and justifying inferences with evidence.  En R C 1a, 1c, 2d; En SL 1, 6, 9, 11 |  |
| Writing | Writing  Critically evaluate and select appropriate features to use and adapt, creating their own checklists independently.  Recap techniques used in persuasive writing, and work as a class to draft a class email to the headteacher, outlining the benefits of creating a class blog. Express why they think it would be beneficial to the school and suggest content that it might include.    Note  The children can do this activity as a shared write or in pairs, where both partners draft an email then work together to send the one they decide is the most persuasive. Blogs are fantastic for helping children develop their ICT, publishing and literacy skills. Blogs need managing and updating on a regular basis, which helps children improve their confidence and gain independence.  En W C 1a Identify the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own.  En W C 1b, 2a; Co 4, 6, 7; PSHE 5b  Writing  Expand vocabulary and use subject-related words appropriately.  Work in small groups to draft ideas for a first-class blog post. Allocate tasks to complete within the group, such as finding and reading appropriate research articles on the web, or composing a specific paragraph. Use key features of writing for the web, such as short sentences, sub-headings, and a high-impact opening sentence. Remember to include an image to go with the blog post and links to other websites or articles that their readers might find interesting.    Note  Demonstrate writing a blog post using the school’s learning platform or PrimaryBlogger, WordPress or Blogger. Explain that a blog is a series of individual blog posts, and create a class editorial rota to make sure updates are regular and consistent. Make sure everyone gets a turn! Link with other schools and create a shared blog using the QuadBlogging platform.  En W C 3b Propose changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning.  En W C 2d, 2e, 4; Co 4, 5, 6, 7; En SL 1, 6; PSHE 5f | Writing  Expand vocabulary and use subject-related words appropriately.  Recap features of a newspaper report and look at examples that cover malware. Use what they have learnt through their interviews and online research to draft a sensationalist account of the school’s cyber-attack for a tabloid-style newspaper. Come up with a punchy headline, quotes from witnesses and explain any technical language.    Note  Children could work on a digital template of a newspaper report. Encourage them to save their work in progress to a digital folder. As a class, the children could devise a name for the virus. Names are often based on the characteristics of the virus – the ILOVEYOU worm was spread via email with ‘ILOVEYOU’ in the subject field!  En W C 1b Note and develop initial ideas, drawing on reading and research where necessary.  En W C 2d, 2e; Co 6; En SL 1, 6  Writing  Edit to improve vocabulary, style and paragraph structure.  Edit and proof-read their report using a spell checker and online thesaurus to improve word choice, punctuation and spelling. Add sub-headings and captioned images found on the web or taken with a digital camera. Create smooth links between paragraphs and check that the tense is consistent throughout.    Note  Give children a features checklist to help them work independently on their newspaper report. Help them produce their report using appropriate software, such as Publisher. Print the children’s reports and display them in the classroom.  En W C 3b Propose changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning.  En W C 1a, 2d, 3c, 4; Co 5, 6, 7  Writing  Critically evaluate their own and others’ writing, indicating changes to vocabulary, grammar and punctuation to improve clarity and effect.  Edit and proof-read their report using a spell checker and online thesaurus to improve word choice, punctuation and spelling. Add sub-headings and captioned images found on the web or taken with a digital camera. Create smooth links between paragraphs and check that the tense is consistent throughout.    Note  Give children a features checklist to help them work independently on their newspaper report. Help them produce their report using appropriate software, such as Publisher. Print the children’s reports and display them in the classroom.  En W C 3b Propose changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning.  En W C 1a, 2d, 3c, 4; Co 5, 6, 7  Writing  Critically evaluate their own and others’ writing, indicating changes to vocabulary, grammar and punctuation to improve clarity and effect.  Re-read their report and look at reports written by others. Work as a class to decide which reports will work best as a blog post. Choose three favourites and take a vote to decide which report will appear on the class blog. Split into groups and analyse the winning report more closely, looking for ways to edit and improve the writing before publishing. Invite readers to leave a comment.    Note  Make sure it is clear the report is fictional and written as part of the children’s project work. You might even want to add a teacher’s note at the beginning of the piece. You don’t want to worry parents unnecessarily! Talk to the children about blog comments and how to respond responsibly. Monitor the comment thread to make sure the conversation is appropriate and on topic.  En W C 3a Assess the effectiveness of their own and others’ writing.  En SL 1, 6, 11; Co 4, 6, 7; PSHE 5f |  | Writing  Critically evaluate and select appropriate features to use and adapt, creating their own checklists independently.  Design a class evaluation form to collect the views of parents and carers on the effectiveness of the school website. Consider what type of questions will help gather the required information. Write an accompanying letter that explains the purpose of the form.    Note  Provide a range of evaluation forms for the children to look at before they design their own. An online version of their form could be created using software such as Google Forms or SurveyMonkey. The software will collect responses and present them in a spreadsheet for the children to analyse. Remember to give parents and carers a deadline for their responses, so that children have time to make or suggest changes to the school site, if necessary.  En W C 1a Identify the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own.  En W C 1b, 2a; Co 4, 6, 7; En SL 7  Writing  Use more features of sentence structure to build up detail or express shades of meaning (e.g. varying word order, expanding verb phrases).  Work individually, with a partner or in a group to draft new text for the school website, based on their ideas, feedback and findings. Use a spell checker and scan for grammatical errors before submitting a final piece of copy to the headteacher for approval. Work with the school’s technology support person or the people who manage the school’s website to make the changes.    Note  You could give the children a printed screenshot of the webpage, so they can annotate and edit on paper first. Children could word process their alternative text before inserting it as a text box or printing it out and sticking it onto the printed webpage.  En W C 2a Select appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning.  En W C 1a, 1b, 2d, 2e; Co 4, 6; PSHE 5e  Writing  Demonstrate the processes needed to plan writing, by thinking aloud to generate ideas.  Read Toys Aren’t Us, Chapter 6 of Stormbreaker, and reflect on the gadgets that Alex is given, discussing any favourites. Talk about how the author uses dialogue to introduce different gadgets and explain how the technique helps develop the scene. Imagine they have been asked to create a new gadget for Alex, and draft design ideas using a planning framework.    Note  Provide a design brief that asks the children to think about their gadget’s function, design and special qualities. They might even bring in examples of super gadgets from home to share with and inspire the class. You might prefer to buy relatively cheap examples from popular gadget shops. Explain to the children that they will be writing a short thriller based on their new gadget.  En W C 1b Note and develop initial ideas, drawing on reading and research where necessary.  En W C 1a, 1c, 2a; En SL 7; DT E 1; DT D 1  Writing  Use dialogue effectively to create characters and move action forward in both scripted drama and narrative.  Plan a thriller of their own using a story planner to draft ideas. Consider ways of adding suspense and anticipation by using different tenses. Find out how to use an ellipsis to show a pause or break in conversation… without overusing the technique! Plan a chapter in which the hero or heroine gets their gadget, using dialogue similar to Horowitz’s writing style in Stormbreaker.    Note  Model writing techniques in a shared activity before children attempt their own story. Ask them to keep reading Stormbreaker throughout the project.  En W C 2b In narratives,describe settings, characters and atmosphere and integrate dialogue to convey character and advance the action.  En W C 1a, 1b, 1c  Writing  Proof-read for spelling and punctuation errors and consistent and correct use of tense/person.  Work with a writing partner to read each other’s stories as they progress. Make suggestions for improving the stories and act on feedback. Make final edits using word processing software, such as Word, and add images to enhance the narrative.    Note  Finish by watching the 2006 film version of the novel. Discuss after watching: Did the characters look as you expected them to? What techniques did the film use to create tension? Which part did you enjoy the most and why? Which actor/actress would star in the film version of your story?  En W C 4 Proof-read for spelling and punctuation errors.  En W C 3a, 3b; En SL 1; Co 6 | |  | Writing  Independently select and use the most appropriate layout devices to structure a text effectively and guide the reader.  Create a flow diagram to plan their podcast episode and break it down into segments. Include an introduction, up to three different topics, a musical interlude, a conclusion and some closing music. Make sure that the episode lasts no longer than five minutes and remember to leave space for summarising the show, thanking any guests and previewing the next episode. Review their episode plan and extend their notes to create conversation prompts in each section.    Note  Remind children that a podcast is recorded, not live, so they will have chance to edit their episode before they publish it. They won’t be setting up a full podcast to upload to iTunes, as this is more advanced and requires technical expertise.  En W C 2e Use further organisational and presentational devices to structure text and to guide the reader (e.g. headings, bullet points, underlining).  En W C 1b, 2a; Co 2  Writing  Make choices about performing their own compositions, taking the needs of the listener into account.  Record their podcasts in a conversational style with friendly language, using their plan to guide the discussion. Use software to edit their episode by cutting and moving tracks and using fades, music and sound effects where appropriate. Export their finished episode to a digital folder as an MP3 file.    Note  The children can work in pairs or small groups to record their episode. They will need reasonable quality microphones and recording software, such as Garageband (Mac, iPad) or Audacity (Windows, Mac). A polished, professional podcast is similar to what you might hear on the radio. Allow the children time to practise their show before recording.  En W C 5 Perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.  En SL 6, 8, 9; Co 6 |
| Science | Science  Explain how light behaves and travels in straight lines.  Investigate how optical fibre cables connect parts of networks by transmitting digital data as light. Shine a bright LED torch down one end of different lengths of fibre optic cable and observe carefully to see whether light emerges from the other end. Suggest reasons why the light can travel so far along the fibre optic cable and what properties make it suitable for telecommunications over long distances. Record their findings in a scientific report including how the light travels down the cable.    Note  You can buy sheathed fibre optic cabling for demonstration purposes from some specialised educational suppliers. Buy long lengths to show how the light can travel over long distances. Children could send flash-coded messages down the cables, like packets of data being sent and received. Fibre optic cables consist of a glass strand (core) surrounded by a layer of mirrored cladding. Light enters the cable and reflects off the internal mirrored surface, zig-zagging until it emerges at the other end. Children could try shining a torch down a hollow plastic tube of similar size and length to observe the differences.  Sc L 1 Recognise that light appears to travel in straight lines.  Sc WS 1, 5; Co 4; En W C 2e; En SL 7 | Science  Recognise the dangers of using lasers and how they can be used safely.  Reflect a fixed laser beam onto a predefined target on the wall of the classroom using a small handheld mirror. Add extra mirrors, one at a time, and position them to get the laser back on target. Sprinkle a small amount of talcum powder over the area where the laser passes so they can see the beam. Describe which element of the experiment is the light source and which are the reflectors, then draw a labelled scientific diagram to show how they are arranged. Identify other common light sources and reflectors.    Note  Stick a picture on the wall as a target. Explain that when the laser beam reaches the target, it is like light reaching our eyes.  Make sure children do not point the laser at their own or other people’s eyes, and use red, low-powered lasers only. If using talcum powder, ensure the activity is done in a well-ventilated room.  Sc L 2 Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.  Sc L 1; Sc WS 3, 5, 6 | Science  Explain how light behaves and travels in straight lines.  Make periscopes of different lengths using cardboard and mirrors, then test them out in the classroom and around school. Draw a scientific diagram to explain how their periscope works, including a description of how light travels.    Note  A periscope is an optical device that allows a person to see something that is not in their direct line of sight. It works by using two mirrors to reflect light from one place to another. A typical periscope uses two mirrors at 45° angles, which means the light reflects from one mirror to the other and then to our eyes. Periscopes allow people to look at things without putting themselves in danger. Test periscopes by playing a spy-themed  game of hide and seek!  Sc L 3 Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.  DT D 2; DT M 1; Sc L 1, 2; Sc WS 3 | Science  Work scientifically to construct a series circuit for a specific device or outcome and explain how it works.  Recall symbols used in circuits, including lamp, switch (on and off), battery (cells), wire, buzzer and motor. Follow circuit cards to construct more complex circuits using electrical components. Test the circuits to see if they work and identify and correct any errors. Design and build a circuit that includes a pressure pad or sensor that acts like a switch and raises an alarm when a threshold is passed. Incorporate designs into a model house or the classroom door.    Note  Provide circuit cards, some correct and some with errors, to inform and develop the children’s circuit building. You can buy whole alarm kits from educational suppliers. Alternatively, buy or make pressure pads or sensors and add them to existing electrical circuit resources. Give the children room plans with windows and doors in different places. Ask them to annotate the pictures with circuits that show how to protect the room from intruders.  Sc E 3 Use recognised symbols when representing a simple circuit in a diagram.  Sc E 2; Sc WS 3; Co 3; DT TK 3  Science  Describe the relationship between the number or voltage of a cell or cells and the effect it has on a bulb or buzzer for example.  Discuss and predict what will happen to the brightness of a lamp or volume of a buzzer if they increase the number of batteries in a working circuit. Carry out the test and use comparative language to describe what happens and why. Explain how they could prove the lamp’s brightness or buzzer’s volume is different. Test their ideas and report their findings to the class.    Note  Provide the children with data loggers that have light or sound sensors that measure quantitative differences in light (lux) and sound (dB). Ask them to record their results in a spreadsheet or table and predict what would happen if they kept adding batteries. Increasing the number of batteries in a circuit may cause the lamp to burn out, so have lots of spares.  Sc E 1 Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.  Sc WS 1, 2, 3, 4, 5; Co 6 | Science  Work scientifically to construct a series circuit for a specific device or outcome and explain how it works.  Use conductive threads (e-textiles) to produce a simple textile gadget that has a lamp, buzzer or motor controlled by a switch. Consider and test ways of programming and controlling their gadget.    Note  Children could make a wrist band with an LED lamp and switch to send messages via Morse code or to light their way home in the dark. Conductive thread is easy to source and you can search online for instructions on connecting other parts. You can access other resources for this activity on The Hub.  Sc E 2 Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.  DT M 1, 2; DT D 2; DT TK 3, 4; Co 1, 2, 3 | | Science  Work scientifically to construct a series circuit for a specific device or outcome and explain how it works.  Work in teams to create a circuit with a buzzer and a coloured lamp that works when a switch is pushed or flicked. Use their circuits to ‘buzz in’ and answer questions in a science quiz about light and electricity – fastest finger first!    Note  You can buy buzzers with different sounds from educational electronics suppliers – so that each team can have its own sound. Alternatively, use the voting system that comes with most IWBs to run the quiz and get real-time data. Give a prize to the winning team.  Sc E 2 Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.  PSHE 5b, 5c, 5f; Sc WS 6 |
| History | History  Select, organise, summarise and present relevant information, from a wide range of sources, in the most effective way for a given purpose.  Use the web to research the history of computing. Display their findings on a digital timeline that includes images, facts and relevant data. Save their work in a named digital folder.    Note  The origins of computing can be traced back 2000 years to the Antikythera mechanism. Other significant developments include the calculating machines of the mid-1600s and Jacquard’s Loom in 1801. Ask the children to work in small groups, and give each a different period to research.  Hi 6 Study an aspect or theme in British history that extends pupils’ chronological knowledge beyond 1066.  Co 5, 6, 7 | | | | | | |
| R.E.  Yr 5 – Salvation (core)  What did Jesus do to save  human beings? | Outline the timeline of the ‘big story’ of the Bible, explaining how Incarnation and Salvation fit within it. Explain what Christians mean when they say that Jesus’ death was a sacrifice, using theological terms. | Suggest meanings for narratives of Jesus’ death/ resurrection, comparing their ideas with ways in which Christians interpret these texts. | Make clear connections between the Christian belief in Jesus’ death as a sacrifice and how Christians celebrate Holy Communion/Lord’s Supper. | Show how Christians put their beliefs into practice. | Weigh up the value and impact of ideas of sacrifice in their own lives and the world today. | | Big Question:  Yr 5 – Salvation (core)  What did Jesus do to save  human beings? |
| Digging Deeper | Explain connections between Isaiah 53, John 19 and the key concepts of Messiah, Sacrifice and Salvation, using theological terms. Taking account of the context(s), suggest meanings for Isaiah 53 and John 19, and compare their ideas with ways in which Christians interpret these texts as showing the idea of Jesus as a sacrifice. | | | Make clear connections between the Christian concept of the sacrifice of Jesus and the idea of Salvation, and how Christians follow Jesus’ example in giving themselves for others. Weigh up how far the idea of sacrifice and the example of Jesus are inspiring in the world today and in their own thinking | | | |
| P.E – cornerstones. | NUFC – Athletics and Fitness – Monday morning 9-10  Commando Joe 9-10 Wednesday morning  Dance | NUFC – Athletics and Fitness – Monday morning 9-10  Commando Joe 9-10 Wednesday morning  Dance | NUFC – Athletics and Fitness – Monday morning 9-10  Commando Joe 9-10 Wednesday morning  Dance | NUFC – Athletics and Fitness – Monday morning 9-10  Commando Joe 9-10 Wednesday morning  Dance | NUFC – Athletics and Fitness – Monday morning 9-10  Commando Joe 9-10 Wednesday morning  Dance | | NUFC – Athletics and Fitness – Monday morning 9-10  Commando Joe 9-10 Wednesday morning  Dance |
| PHSCE Y3/4 | L3. to understand that there are basic human rights shared by all peoples and all societies and that children have their own special rights set out in the United Nations Declaration of the Rights of the Child  L4. that these universal rights are there to protect everyone and have primacy both over national law and family and community practices | PSHE  Talk about a range of jobs, and explain how they will develop skills to work in the future.  Consider how robotics and assistive technologies might influence and affect how they learn and work in the future. List the skills they think they will need in this future world.    Note  Begin by watching Shift Happens, a digital presentation about how technology might change lives in the future. A similar presentation that provokes the children’s thinking and curiosity is The Future of Work. Children might like to produce an up-to-date presentation and upload it to the school website.  PSHE 1e Learn about the range of jobs carried out by people they know, and to understand how they can develop skills to make their own contribution in the future.  PSHE 1a, 4b; En W C 1b; Co 6, 7 | L5. to know that there are some cultural practices which are against British law and universal human rights. | L6. to realise the consequences of anti-social, aggressive and harmful behaviours such as bullying and discrimination of individuals and communities; to develop strategies for getting support for themselves or for others at risk | L7. that they have different kinds of responsibilities, rights and duties at home, at school, in the community and towards the environment; to continue to develop the skills to exercise these responsibilities | | PSHE  Explain how they can make a positive contribution to society, now and in the future.  Watch clips of the old BBC TV series, Tomorrow’s World (1978–2003). Enjoy learning about the inventions and ‘new technologies’. Discuss how and why these products have changed and developed into what they are today. Think how the products might develop in the future and what impact they will have on their everyday life. Create a timeline that includes dates in the future and add their ideas.    Note  Beware. Watching Tomorrow’s World may make you feel old! There are some brilliant clips that will amaze the children as they look at the first mobile phones, the information superhighway, the first digital camera and a small thing called email.  PSHE 1a Talk and write about their opinions, and explain their views, on issues that affect themselves and society.  PSHE 5b, 5c; En SL 1, 6 |
| PHSCE Y5/6 | L13. about the role money plays in their own and others’ lives, including how to manage their money and about being a critical consumer  L14. to develop an initial understanding of the concepts of ‘interest’, ‘loan’, ‘debt’, and ‘tax’ (e.g. their contribution to society through the payment of VAT) | L15. that resources can be allocated in different ways and that these economic choices affect individuals, communities and the sustainability of the environment across the world | L16. what is meant by enterprise and begin to develop enterprise skills | L17. to explore and critique how the media present information  L18. to critically examine what is presented to them in social media and why it is important to do so; understand how information contained in social media can misrepresent or mislead; the importance of being careful what they forward to others | |
| Art and Design | Art & design  Combine images using digital technology, colour, size and rotation.  Study logos used by search engines and other online companies. Describe how colour and shape can be used to create a brand or identity. Sketch ideas for a logo that could be used on their own website. Experiment by combining shapes and using different colours. Create a final design using graphic-painting software. Save their logo into a digital folder.    Note  Children could bring all their ideas about their website together to create a homepage (see below) that includes a high-impact image, effective header, eye-catching logo and a welcome paragraph that describes the purpose of the site.  AD 2 Improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (e.g. pencil, charcoal, paint, clay).  Co 5, 6, 7; En W C 1a; En SL 5, 7 | | | | | | |
| French  Reconte moi une histoire | Les Trois Boucs Bourru  Read, translate, write.  Farm animals | Les Trois Boucs Bourru  Read, translate, write  Farm animals | Jacques et les haricots magique.  Food | read carefully and show understanding of words, phrases and simple writing  Cinderella | appreciate stories, songs, poems and rhymes in the language  Ma surprise du zoo | | broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary  Harry Potter |
| French  Learning objectives | Read carefully and show understanding of words, phrases and simple writing.  Appreciate stories, songs, poems and rhymes in language.  To broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary.  Write phrases from memory, and adapt these to create new sentences, to express ideas clearly.  Describe people, places, things and actions orally\* and in writing.  Understand basic grammar appropriate to the language being studied, including where relevant: feminine, masculine and neuter forms and the conjugation of high frequency verbs; key features and patterns of language; how to apply these for instance to build sentences; and how these differ from or are similar to English.  develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases.  Spring  Phonic sounds r, an  Imperatives: vous form  Adjectives: masculine, feminine singular agreement. | | | | | | |
| Computing | Computing  Create account of accuracy and potential bias when searching for and selecting information.  Learn how to search effectively and safely by making sure websites are trustworthy. Look at spoof websites then read and discuss their content. Show the class what they have found, explaining clearly and answering questions in a confident manner.    Note  Save the Pacific North West Tree Octopus and Dihydrogen Monoxide are spoof websites that are very believable! Encourage the children to find this out for themselves before revealing the truth. You could ask them to validate the information they find using other source material. Some search engines use web crawler software that browses the web for relevant results based on keywords or phrases. The search engine then indexes and presents those results to the user. Remind the children that just because a website ranks highly and appears near the top of a search results page, the information it provides isn’t necessarily true, relevant or age-appropriate. Always be wary and check information from multiple sources!  Co 5 Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  Co 7; En SL 1, 4, 5, 6; En R C 1a  Computing  Create flowcharts and other diagrams to explain how a process or model works.  Make a list of networks in everyday life, such as railways, the human circulatory system, motorways and canals. Look at pictures, maps and images that show how these networks connect. Study diagrams and images of computer networks to appreciate different configurations. Work practically to create a 3-D model of a computer network using string, ribbon, cables, boxes and other common materials. Describe their network to the rest of the class and draw a diagram to explain how its elements connect.    Note  Explain to the children that information travelling through computer networks must be digitised and turned into numerical data. This data is broken up into small packets, which are then sent across the internet. At the receiver’s end, the data is put back together in a form that’s easy to understand, such as an email, webpage or Skype call. Children could label key parts of their network using appropriate computing words, such as server, hub, bridge, switch, router, modem, and firewall. They could add these words to their wiki glossary.  Co 4 Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.  DT D 2; En SL 3, 5, 6; En W C 1b; Sc A 1 | Computing  Produce algorithms independently using logical and appropriate structures to organise and record data.  Watch a range of online videos that show amazing robots in action. Choose a favourite robot and research its capabilities and functions. Think about whether the robots are ‘intelligent’. Imagine they have a robot of their own and determine what steps it must take to complete a task. Write the task as an algorithm and program the ‘robot’ by presenting the instructions as a flow diagram. Discuss how robots might help shape the world in the future.    Note  An algorithm is a precisely defined sequence of instructions for completing a predefined task. Programs are the steps taken to solve a problem defined by an algorithm. In this case, the algorithm might be to ask the robot to ‘make a cup of tea and take it to the living room’. There are many video clips available on YouTube that show robots performing a range of tasks. You can also find good clips on the iWonder and education section of the BBC’s website.  Co 2 Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.  DT E 3; Co 1, 3, 5, 7; En SL 1, 6, 7  Computing  Produce algorithms independently using logical and appropriate structures to organise and record data.  Watch online videos that show a sorting algorithm, such as ‘Lego Bubble Sort’ or ‘Hungarian Folk Dancing Bubble Sort’. Describe what happens in the videos and work in pairs to write a program to carry out the algorithm of ‘sort numbers 1–9 into the correct order from any random starting point’. Pay attention to any processes that repeat.    Note  As an extension, children could work in groups and each pick a random card from a pile numbered one to five. Tell them to stand in a line in any order then turn over the card. Follow their program to put themselves in order. Did it work? Ask the children to correct any errors and repeat until the algorithm is correct.  Co 3 Use logical reasoning  to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  En SL 1, 2, 4, 5; Co 1, 2; PSHE 5f | Computing  Take account of accuracy and potential bias when searching for and selecting information.  Become a ‘web crawler’ and find out as much information as possible about a favourite topic. Bookmark useful websites to refer back to later and copy and paste useful, relevant text and images into a blank Word document. Save the document to a digital folder.    Note  Remind the children how to search effectively and safely on the web. Tips for effective web searches include: using the wild card symbol (\*), when they are unsure about how to spell a word; using several words in the same search, to find more exact matches; using quotation marks, to force an exact match; excluding a particular word, by using a minus sign; and using words that have a specialist or unique meaning, to narrow down results. Make sure that children understand the rules regarding plagiarism from online sources.  Co 5 Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.  Co 6, 7; En R C 5 | Computing  Design and create/use a range of programs to accomplish given goals.  Work in groups and discuss what music they listen to, whether they listen to music online, and what apps or websites they use. Talk about how their parents or carers listen to music. Research the words ‘copyright’ and ‘piracy’, including what they mean in relation to music. Download copyright-free music and listen to it using headphones, so they do not distract other people. Search for and collect music that links with their favourite topic, saving examples in a digital folder.    Note  Make sure the children use copyright-free music. Audio Network or your Regional Broadband Consortium are free to use in school.  Co 6 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.  Co 4, 5, 7; Mu 5; En SL 1, 6, 7 | Computing  Design and create/use a range of programs to accomplish given goals.  Combine their design work to create a mock-up homepage for a website about their favourite subject. Start by creating an exploded concept diagram with labels and captions to show possible different elements and where they could be positioned on the homepage. Combine sourced information and images, headers, logos and music files for their homepage. Write a short paragraph that tells the user what the website is about. Make a list of other pages, creating a sitemap that shows how the website’s pages could be linked and include them in a menu or tabs on their homepage.    Note  Children will use Weebly to create a website in the Innovate stage of the project. At this stage, they could create a simple mock-up of their homepage in PowerPoint. They could even create extra pages as new slides and add hyperlinks to navigate between them. Talk about the CEOP button and how they could use it to report things that concern them. Encourage the addition of a CEOP button to their mock-ups, using an image or actual link to the site.  Co 6 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.  DT D 1, 2; Co 4, 7; En W C 2a, 2d | | Computing  Design and create/use a range of programs to accomplish given goals.  Have fun rewriting a popular poem in textspeak or with emoticons! Swap their work with a partner to see if they can work out what their rhyme or poem is. Search for evidence that shows textspeak is becoming more accepted in everyday language.    Note  In New Zealand, students are able to use textspeak in exams – LOL!  Co 6 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.  En W C 1a, 2a; Co 5, 7  Computing  Produce algorithms independently using logical and appropriate structures to organise and record data.  Work with a partner to write a program for a basic algorithm. Check that it is clear and easy to understand, has defined inputs and outputs, is guaranteed to terminate and produces the correct result. Swap programs with another pair and debug any errors found.    Note  Children’s algorithms could be as simple as tying a shoelace or making a jam sandwich. There are some brilliant online video clips of children programming their teachers to do simple tasks. Remember that a program is a set of instructions written in a precise language that a computer would understand.  Co 1 Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  Co 2, 3, 6; PSHE 5f |
| Design and Technology | D&T  Describe how an individual in the field of design and technology has helped shape the world.  Find out about significant people who have changed the world of technology, including Sir Tim Berners-Lee, Steve Jobs, Sir Jonathan Ive, Bill Gates, Steve Wozniak, Alan Turing, Mark Zuckerberg, Marissa Mayer, Susan Wojcicki, Jack Dorsey, Sheryl Sandberg and Blaise Pascal. Present their findings to the class and explain why these people are important, including how their work has helped shape technology. Take a class vote to decide who they think is the most significant person.    Note  Children could use the voting system on an IWB to nominate their favourite person, or just ask for a good old-fashioned show of hands!  DT E 3 Understand how key events and individuals in design and technology have helped shape the world.  En SL 4, 5, 9, 11; En R C 5; Co 5, 7 | D&T  Explain the form and function of familiar existing products.  Look at a range of images that show robotic and/or programmable technologies in the home, out and about and in the workplace. Consider how these technologies are better than humans at performing some tasks. Research assistive technologies and think about how they help people with disabilities and specific medical needs. Predict what assistive technologies might be available in the future. Record results using appropriate software, such as Excel, Word or Google Docs.    Note  We use programmable technologies every day, including washing machines, thermostats and car park barriers. Some technologies are developed for specific tasks, such as manufacturing robots, space rovers and military robots that defuse bombs.  DT E 1 Investigate and analyse a range of existing products.  En SL 7, 9; DT E 3; En R C 5; Co 4, 5, 6, 7 | D&T  Develop, try out and refine sequences of instructions to effectively monitor, measure and control events.  Design and make a programmable device using a construction kit or found materials. Ensure that the device has a functional element, such as lights or a warning buzzer. Plan and draw their ideas then describe what they intend to do with an adult or peer. Ask questions as they work to help develop their ideas. Write a program to make their device perform a function as a response to an input, such as when a car park barrier swings up if a pressure pad is touched.    Note  Examples might include a simple robotic arm, automatic door or light-operated sensor. Children could use an interface such as Flowgo or Lego Wedo to control their model. They can use a Flowgo interface with Flowol software and traditional resources, including motors, lights and dowelling. Lego tends to require specific Lego kits provided with a Wedo or Mindstorms NXT. Software and other similar interfaces sometimes come with ‘mimics’ that allow onscreen, simulated control for more sophisticated systems, such as opening windows in a greenhouse when it reaches a set temperature.  DT TK 4 Apply their understanding of computing to program, monitor and control their products.  DT D 2; DT M 1, 2; DT TK 3; Co 1, 2, 3, 6; Sc E 2; En SL 1, 2, 5 | D&T  Check work as it develops and modify their approach in the light of progress.  Look at different websites and analyse the header area across the top. Discuss what website headers are for and work as a group to discuss what information they typically include. Share favourite examples and identify common header elements. Develop ideas for a website header on a favourite topic using sketches and annotated drawings. Think about what key elements their header will need to include. Use suitable software to create a draft header, downloading and adding one or more relevant images to the design. Crop, resize, rotate and edit the images to make sure they fit nicely and look great. Discuss who owns the original images and any restrictions there might be if they wanted to use them on a real website.    Note  Provide a list of example websites for the children to visit. The header area of a website might typically include a logo, tagline, menu, search box, branding, images, or a banner advert. Be aware that the children may stumble across inappropriate images and make sure that they know what action to take if they do. Your school may restrict access to some websites to protect staff and children.  DT D 2 Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.  DT E 1; Co 5, 6, 7; En SL 1, 6, 7 |  | | D&T  Develop detailed criteria for designs for products aimed at particular individuals or groups, sharing ideas through cross-sectional and exploded diagrams, prototypes and pattern pieces.  Consider what app or robotic device they think would be useful or might solve a modern-day problem. Create an online form to ask parents, families and other people for their views on what would be helpful, and use the data to inform their design brief. Make notes and sketch a design to show their ideas, using labels and captions to explain how it works. Write a sales pitch for their design and present their ideas to others using an imaginative approach.    Note  Children could look at how a common household object has developed over the years, such as the common vacuum cleaner! Cars, bikes, radios and telephones are also interesting to compare.  DT D 1 Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.  DT D 2; DT E 3; En W C 1b; En SL 9, 11; Co 4, 6, 7 |