

ST MARY MAGDALENE CE PRIMARY SCHOOL COMPUTING POLICY

The Acceptable Use of Computing Policy and the E Safety Policies should also be read in conjunction with this policy.

Vision Statement

“A high-quality computing education equips pupils to use computational-thinking and creativity to understand and change the world.”

- National Curriculum in England: computing programmes of study (2013)

At SMMS, we believe that computing is vital in helping children to solve problems, design systems, and understand the power and limits of human and machine intelligence. We believe computational thinking is a skill that empowers, and one that all pupils should be aware of and develop competence and confidence in. Pupils who can think computationally are better able to understand and use computer-based technology and so are, therefore, better prepared for today's world and future. It is important to us at St Mary Magdalene, that the Computing curriculum is engaging and exciting, and addresses the challenges and opportunities offered by the technologically rich world in which we live.

Aims

- To ensure children understand the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representations.
- To develop pupils' computing skills to enrich their learning across the curriculum.
- To ensure pupils demonstrate progression in all strands of the Computing National Curriculum.
- To allow pupils to be creative and to express themselves and their ideas through the use of information, communications and technology (ICT).
- To ensure pupils become responsible, competent and confident users of ICT.
- To ensure pupils are aware of how to stay safe and communicate responsibility when using ICT.
- To ensure computing technologies are used, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEND.
- To ensure children become digitally literate.
- To ensure that teachers develop confidence and competence to use digital technology across the curriculum.

Teaching and Learning

Computing is taught explicitly once a week in Years 1-6. Lessons are delivered by class teachers. Computing skills are taught as an integral part of the EYFS curriculum. The work covered at Key Stage 1 builds on the Early Learning Goals for Understanding the World for children in the Foundation Stage. Pupils in Reception continue to develop their knowledge, understanding and skills through play activities and through direct teaching which begins to develop the skills needed in the use of ICT.

At St Mary Magdalene we use the Rising Stars 'Switched on Computing' schemes of work. The Computing Yearly Overview (found at the end of this policy) maps out the computing topics that the children study throughout the year. Each class teacher uses the plans from the Rising Star schemes of work. Class teachers are responsible for adapting the plans so they meet the needs of all learners in their class.

The Rising Stars schemes of work enable children to become proficient in the specific skills needed to use the various pieces of equipment such as computers, cameras, video recorders and keyboards.

These skills are taught discretely in the specific Computing lessons. The application of these skills is then practised in other areas of the curriculum.

Children are taught about online-safety (see online-safety policy) which is a key strand in the computing scheme of work. Online safety is given a high profile in the school through our WOW team and annual celebration of 'Online Safety' Day, as well as through the clear rules for staying safe online which are displayed in all classrooms. Online-safety units, for each year groups, are planned out in the Computing Yearly Overview.

SMMS has 12 interactive whiteboards (one in every classroom, as well as in the ICT suite and the Learning Space). We have 21 desktop computers in the ICT suite as well as 6 laptops in every classroom (Y2-6). This means that with the addition of the class laptops, the computer suite can be set up so that every child is able to work on their own computer in computing lessons. There are two desktop computers in every classroom, as well as in the intervention room. We also have 6 iPads in every classroom (Reception-Y6), as well as an additional iPad for all pupils with an EHCP.

Inclusion

All pupils, regardless of race, gender or religion, have the opportunity to develop computing capability. We recognise the fact that there are pupils of widely different abilities in all classes and we use a variety of methods to ensure suitable learning opportunities for all pupils, matching the challenge of the task to the ability of the pupil and experience of the child.

Pupils with SEND will be entitled to the same access as their peers. In planning lessons teachers will identify the learning goals for the majority of pupils as well as extension activities for the more able. Consideration will be given to modifying the task, or providing peer or adult support. Specialised software and hardware is available for pupils with SEND. All reviews of provision for pupils with special needs should include the consideration of a child's access to a computer or iPad.

Assessment and Recording

- Evidence of pupil's work can be found in class folders on the shared pupil drive or on class Scratch accounts.
- Assessment for computing will be carried out termly by each class teacher. Pupil's progress is measured against the key skills and expectations of each year group.
- Progress in computing will be reported to parents in their child's end of year report.
- Assessment will take place at the end of each term using the Creative Learning Journey. Teachers will select the objectives before the start of each half term using Rising Stars to support and assess against them.

Health and Safety

- ICT equipment is maintained to meet agreed safety standards.
- All pupils should be encouraged to use the correct posture when using the keyboard.
- Staff should consult the SENCO with regard to any implications of the use of ICT for known medical conditions, e.g. epilepsy, visual impairment.
- Age appropriate class and safety rules are displayed by all computers and in all classrooms.
- To avoid continuous focus on the screen, teachers should give pupils regular screen breaks.
- Passwords are in place to protect the security of its systems and data. All members of staff have their own individual password-secured access to school systems. Users are required to change passwords regularly. Access to systems is locked out after a set number of incorrect attempts. Members of staff must lock their computers and iPads whenever they leave them unattended.

Role of the Subject Leader

The Computing Lead is responsible for creating an annual action plan and reviewing the impact of computing across the school.

The monitoring of the standards of the children's work and the quality of teaching in computing is the responsibility of the Computing Lead and the Senior Leadership Team.

The Computing Lead will work with external professionals (including a Computer Lead from another school and the 'Turn It On' IT support team) to ensure the professional development of all school staff in Computing, the quality of teaching and learning and the school's future resourcing needs.

Related documents in school

- Computing Yearly Overview (see attached document)
- Rising Stars 'Switched on Computing' Schemes of Work
- School Improvement Plan
- Acceptable Use of the Internet Policy
- Online-safety Policy

St Mary Magdalene CE Primary School Computing Yearly Overview



	Autumn	Spring	Summer
Reception	<p>Activity 1 - We Have Confidence</p> <p>In this activity, the children will create a game using sound recordings of themselves talking. To play the game the recordings will need to be matched to the correct photo.</p>	<p>Activity 9 – We Can Listen</p> <p>In this activity, the children will set up a shoe shop role-play area in two parts: the shop and the storeroom. They will recreate roles and use technology to communicate information.</p>	<p>Activity 17 – We are Designers</p> <p>In this activity, the children will use resources from the workshop area, along with construction and small-world toys, to create an environment for remote-controlled toys.</p>
	<p>Activity 2 - We Can Take Turns</p> <p>In this activity, they will take turns to use simple on-screen activities, creating pictures or patterns by touching the screen or using the mouse. They will understand that generally only one person can change things at one time, and to complete their task they have to wait their turn.</p>	<p>Activity 10 – We Can Understand Instructions</p> <p>Working with a practitioner in small groups (preferably in pairs), the children will follow verbal or written instructions to make sticky flapjacks using a microwave oven. They will then record what they have done.</p>	<p>Activity 18 – We are Shape Makers</p> <p>In this activity, the children will initially identify regular shapes. They will then go on to create pictures or patterns from regular and irregular shapes, using a light box/visualiser/IWB, and share with others.</p>
	<p>Activity 3 - We are Successful</p> <p>In this activity, they will have the opportunity to take photographs of things they have achieved and then combine these with text or sounds to create a presentation that they can share with others.</p>	<p>Activity 11 – We Can Understand Messages</p> <p>In this activity, the children work in pairs to listen to recorded-message clues along a treasure trail to find 'phoneme treasure'</p>	<p>Activity 19 – We are Community Members</p> <p>In this activity, the children will find out about their community and record their findings to create a digital poster or book.</p>
	<p>Activity 4 - We Have Feelings</p> <p>In this activity, they take photographs of their faces and bodies showing emotions and feelings to create a presentation that they can share with others.</p>	<p>Activity 12 – We are Talkers</p> <p>In this activity, the children record video clips of themselves retelling/telling stories and then share these video clips with others within and beyond the setting.</p>	<p>Activity 20 – We Can Observe</p> <p>In this activity, the children use a hand held digital microscope to explore the objects, materials and living things they find around them and discuss what they see.</p>
	<p>Activity 5 - We Can Drive</p> <p>In this activity, the children will take photographs and use these to develop props to enhance the outside area and make riding the wheeled toys more engaging and challenging.</p>	<p>Activity 13 – We are Digital Readers</p> <p>In this activity, the children will read and become familiar with a range of digital texts. Initially, they will work with a practitioner but will later independently choose and read texts, and will develop an understanding of how digital texts are different from other texts.</p>	<p>Activity 21 – We are Games Players</p> <p>In this activity, they will play digital games at home where they need to solve a problem, make things happen or have an adventure. Each game will offer an opportunity to improve scores and outcomes through practice, learning by mistakes and replaying. The children will talk about how they play the games.</p>
	<p>Activity 6 - We are DJs</p> <p>In this activity, children help to select a music video for a DJ to play at a disco and then dance to it. They will explore ways of disco dancing and understand that music/video/sounds can be played and replayed very easily using a computer.</p>	<p>Activity 14 – We Can Email</p> <p>In this activity, the children engage in email communication with 'The Three Bears' and find out how the bears felt the day Goldilocks came to visit.</p>	<p>Activity 22 – We are Creative</p> <p>In this activity, the children will take inspiration from Eric Carle's books, and use art packages to create patterns and colours and their own unusual animal.</p>
	<p>Activity 7 – We are Healthy</p> <p>In this activity, the children are encouraged to be physically active and then feel the effects this exercise has on their bodies. They will develop an understanding of the positive effects of exercise</p>	<p>Activity 15 – We Can Blog</p> <p>In this activity, the children will contribute to a blog diary for an audience beyond the setting. They will record the events of the setting, contributing as groups, individually and in pairs.</p>	<p>Activity 23 – We Can Record Soundtracks</p> <p>In this activity, the children record a soundtrack that tells their favourite story.</p>
	<p>Activity 8 – We are Healthy</p> <p>This activity enables children to use child-friendly online information sources to explore healthy eating and share the information they find through group discussion and the creation of a digital healthy eating plate.</p>	<p>Activity 16 – We Can Count</p> <p>In this activity, the children will control the movement of a programmable toy so that it moves backwards and forwards along a street to allow the postman/woman to deliver letters.</p>	<p>Activity 24 – We are Film Producers</p> <p>In this activity, the children record video clips of themselves acting our scenes from <i>Goldilocks and the Three Bears</i>, which are then edited together to create a film of the story.</p>

	Autumn	Spring	Summer
Year 1	<p>We are Astronauts</p> <p>Program a toy to move around a map to find buried treasure. They will start by thinking of algorithms for their routes, then input these as stored programs for the robot. They predict how the robot will move and will debug their programs.</p> <p>E-Safety</p> <p>If pupils will be accessing the internet, ensure that access to inappropriate material is blocked by filters. If pupils are being filmed, or film one another, working with the robots, ensure any necessary permission has been obtained (see Computing policies)</p>	<p>We are Collectors</p> <p>Use web search engines to collect pictures of different types of animals and then explore ways in which those pictures can be organised.</p> <p>E-Safety</p> <p>Discuss what pupils should do if they have concerns over any images or other content they encounter when using search engines. Precautions over the protection of the pupil's identity and contact details should be in place if they upload work they create for others to see. Think about how you will explain ideas of copyright to the pupils. It would be wise to limit searches to open source web based (google) websites.</p>	<p>We are Painters</p> <p>Pupils will particularly be engaged if they love the illustrations in their book they read. It is a great opportunity for the pupils to work creatively.</p> <p>E-Safety</p> <p>Talk to the pupils what to do if they encounter inappropriate material. If the pupil's work is to be uploaded to a public area, check compliance with SMMS policy, in particular regarding the pupil's identities and their intellectual property. If email is being used, remind pupils about its safe and respectful use.</p>
	<p>We are Celebrating</p> <p>Create a digital greetings card, which could be used for a religious festival such as Diwali or Christmas, pupils' birthdays, or simply to say thank you or good luck.</p> <p>E-Safety</p> <p>Discuss what to do if the pupils encounter inappropriate material. SMMS policy should be followed if they use any photographs of themselves. Take precautions over the protection of the pupil's identity and copyright if they share work beyond the school. Always check the copyright details of any images sourced from the web, where possible use public domains.</p>	<p>We are TV Chefs</p> <p>Produce short videos of themselves making a healthy meal or snack. They also decompose a complex problem into smaller parts – an important idea from computer science.</p> <p>E-Safety</p> <p>Even if video footage is used only within the school, still refer to consent forms for filming pupils. Remove any information in the videos that might identify pupils. Talk to pupils about what to do if they encounter inappropriate material.</p>	<p>We are Storytellers</p> <p>The pupils will create a talking book that they can share with others.</p> <p>E-Safety</p> <p>The pupil's performances may be uploaded to the learning platform or class blog. Uploading to external websites should only be allowed if this is in accordance with SMMS policy and any relevant permissions obtained. Where pupils are reading others' stories, be aware of copyright and take care to observe any associated conditions.</p>
Year 2	<p>We are Astronauts</p> <p>The pupils will program a sprite (such as a spaceship) to move around the screen. This unit will act as a springboard for programming in Year 3.</p> <p>E-Safety</p> <p>The pupils should comply with the MIT's terms and conditions, as well as all relevant school policies.</p> <p>Remind pupils about what to do if they encounter inappropriate material when using the web Scratch allows pupils to incorporate images from elsewhere; if they do so they should use only public domain.</p>	<p>We are Researchers</p> <p>The pupils will research a topic – safely, effectively and efficiently – using a structured approach (mind mapping). They will share their findings with others through a short multimedia presentation.</p> <p>E-Safety</p> <p>Internet access in school is likely to be filtered, but make sure these filters are in place and are appropriate. It is strongly advised to discuss with children what they should do if they encounter inappropriate material. Check the terms and conditions of any software or online services that are being used, to ensure they comply with SMMS e-safety policy. Remind the pupil's about respecting other people's intellectual property. They should credit the sources they've used.</p>	<p>We are Zoologists</p> <p>Record and identifying the small animals they find, they then organise the data they have collected, record it using a graphing package, and interpret the graph to answer questions about the animals.</p> <p>E-Safety</p> <p>Establish rules for using digital equipment when out of the classroom – to ensure the equipment is kept safe and that the pupils are not so focused on using it that they become unaware of risks around them. Check the terms and conditions of the software you use, including web based services. Take precautions to protect the pupils identity if they upload work they create, particularly if it included photographs or video of themselves or each other.</p>
	<p>We are Game Testers</p> <p>The pupils will try to work out how some simple Scratch games work. They also look at free online or open source games and share their favourite games with the class.</p> <p>E-Safety</p> <p>Take care when choosing games for pupils to play, or allowing them to bring in recommended games with age restrictions being observed. The pupils can access the Scratch website, including the example games, without registration. They can register for accounts with parental permission. Comments on Scratch are not moderated before they appear so be careful.</p>	<p>We are Photographers</p> <p>Review photo's online, practise using a digital camera, take photos to fit a given theme, edit their photos, and then select their best images to include in a shared portfolio.</p> <p>E-Safety</p> <p>Remind the pupil's what to do if they have concerns about online content. If the pupil's upload work they create for others to see , make sure their identity, contact details and intellectual property are protected. You may wish to limit online sharing to the pupil shared space. Talk to the pupil's about what is acceptable to photograph. It is not a good idea to take photographs in which pupils can be identified, or that may reflect badly on the pupils.</p>	<p>We are Detectives</p> <p>Solve a mystery by reading, sending and replying to emails, and by listening to a witness statement. They use a fact file sheet to create a table and identify the culprit.</p> <p>E-Safety</p> <p>Stress to the pupils that they should never open email attachments that are unexpected or from unknown sources, they should be very wary of links in emails, and they should not give out personal information. The school may wish to hold an e-safety meeting with parents, to coincide with the start of this unit.</p>
Year	Autumn	Spring	Summer

	<p>We are Programmers</p> <p>Create an animated cartoon using characters they design. They use a paint tool to create characters and backgrounds. They then create an animation by translating a storyboard into a series of scripted instructions (program) for graphic objects.</p> <p>E-Safety</p> <p>If pupils are going to upload their animations to the Scratch websites, they will need to create accounts which require permission. Exploring online animation galleries may expose the pupils to inappropriate content. Talk about what to do if they come across anything. Review the appropriateness of any animations you show, including the related comments.</p>	<p>We are Opinion Pollsters</p> <p>Create their own opinion poll, seek responses and then analyse the results.</p> <p>E-Safety</p> <p>Discuss the ethics of surveys, such as the expectation of anonymity and confidentiality, and some degree of informed assent. Pupils should also relate this to data privacy and protection. Emphasise that surveys should not include questions that could allow a person to be identified. Talk through the responsibility of completing the survey sensibly, giving frank and honest answers. Moderate responses before allowing pupils to analyse the data.</p>	<p>We are Bug Fixers</p> <p>Work with six example Scratch projects. They explain how the scripts work, finding and correcting errors in them, and ways of improving them. Pupils learn to recognise some common types of programming error, and practise solving problems</p> <p>E-Safety</p> <p>Once registered, pupils can share their corrected and refined programs with the global Scratch community in a safe online space. Alternatively, they can upload into pupil shared space. If pupils upload screencasts of their solutions, make sure you take the usual precautions to protect their identity. If pupils use the web for research ensure all internet safety protocol is used.</p>
	<p>We are Communicators</p> <p>Learn about a number of e-safety matters in a positive way. They will work with a partner in another class, learning how to use email and video conferencing safely.</p> <p>E-Safety</p> <p>Ensure all email correspondence between you and the pupils is via a school email address. Ensure that the pupils are made aware of email etiquette and the dangers of spoofed links and malware via attached files. The terms and conditions of Google Hangouts and Skype currently prohibit under 13s from having accounts but, meaningful dialogue between classes and groups is still possible using teacher accounts.</p>	<p>We are Presenters</p> <p>This unit gives them a chance to make a short narrated video of themselves practising a sport or other skill, and to use this to help improve their performance.</p> <p>E-Safety</p> <p>Even if video footage is used only within SMMS, parental consent should be sought. Brief the pupils and parent's in advance. With the consent the pupils and parents, some of the edited video might be made available on the school website or external sites. Keep to SMMS policy. Never include any information in the videos that might identify pupils.</p>	<p>We are Engineers</p> <p>Investigate how computer networks work. They use a simulation and learn some simple command prompt (C:) tools for testing network connections.</p> <p>E-Safety</p> <p>Emphasis that the pupils should not change settings or alter files on computers unless they have permission and can undo their changes.</p>
	Autumn	Spring	Summer
Year 4	<p>We are Software Developers</p> <p>Play and analysing educational computer games, identifying those features that make a game successful. Then design a game, with a clear target audience in mind. They create a working prototype, and then develop it further to add functionality and improve it.</p> <p>E-Safety</p> <p>If pupils register for accounts, they need to give a parent's or carer's email address. Check that parent's / carer's are happy about this.. Pupils should respect licence conditions and intellectual property rights when incorporating images and sound effects that are downloaded from the web.</p>	<p>We are Meteorologists</p> <p>This unit brings together data measurement, analysis and presentation, as the pupils take on the role of meteorologists and weather presenters.</p> <p>E-Safety</p> <p>Check SMMS policy and seek parental permission before videoing the pupil's weather presentations, particularly if they are to be posted on the school website or external websites. If you decide to submit your school's weather measurements to Weather Underground, there should be no need to share the pupils' details. If you decide to use the Google Sheets, the pupils will need Google accounts.</p>	<p>We are HTML Editors</p> <p>The pupils learn about the history of the web, before studying HTML (hypertext mark-up language), the language in which web pages are written. They learn to edit and write HTML, and then use this knowledge to create a web page.</p> <p>E-Safety</p> <p>Creating accounts on some of the web-based applications in this unit (e.g. Thimble) require parental permission. Use these lessons as an opportunity to address the risks of the web. It is vital the pupils learn to keep themselves safe when online. If they see anything inappropriate to let the teacher know as soon as possible.</p>
	<p>We are Toy Designers</p> <p>Work together to design a simple toy that incorporates sensors and outputs and then create an on-screen prototype of their toy in Scratch. Finally, they pitch their toy idea to a Dragons' Den – style panel.</p> <p>E-Safety</p> <p>Pupils can incorporate images and sound effects that they download from the web, but should respect any licence conditions when doing so. If you do decide that the pupils should work with control hardware, conduct a risk assessment and ensure safe practices are adhered to.</p>	<p>We are Musicians</p> <p>How many pupils in your class play an instrument? How many of them like singing, or simply enjoy listening to music? In this unit, pupils will produce music suitable for any purpose they choose</p> <p>E-Safety</p> <p>The pupil's compositions and public performances may be uploaded to the learning platform or school website. Discuss illegal downloading and file sharing of copyrighted music, as well as collaboration, remixing and Creative Commons licences. The use of copyrighted music recordings in UK schools is allowed by law if used as part of the curriculum and if no visitors are present.</p>	<p>We are Co-authors</p> <p>Wikipedia is a free online encyclopaedia that anyone can view and edit. In this unit, the pupils collaborate to create a 'mini Wikipedia'. They then go on to add or amend content on the real Wikipedia.</p> <p>E-Safety</p> <p>The usual precautions need to be taken with web access, ensuring that access to inappropriate material is blocked by filters. It is best to create wikis using an in-house wiki tool, e.g. on the school's learning platform. Keep an eye on activity logs, and intervene when appropriate to help pupils.</p>
	Autumn	Spring	Summer
Year 5	<p>We are Artists</p> <p>The pupils use vector and turtle graphics to explore geometric art, taking inspiration from the work of Escher, Riley and traditional Islamic</p>	<p>We are Bloggers</p> <p>Blogging provides a worldwide audience of pupils' work. Commenting on others' work extends pupils' sense of membership of a learning community beyond school. In</p>	<p>We are Architects</p> <p>The pupils will research examples of art gallery architecture, before using Trimble SketchUp to create their own virtual gallery.</p>

	<p>artists, as well as experimenting with complex 'fractal' landscapes.</p> <p>E-Safety</p> <p>If the pupils use Google Image Search to study examples of artists' work, ensure that 'safe search' is locked to 'strict'.</p> <p>Precautions over the protection of identity and intellectual property should be in place if the pupils upload work they create for others to see.</p>	<p>this unit, pupils create a media-rich blog, comment on blogs and respond to comments.</p> <p>E-Safety</p> <p>Allow class access only to individual blogs is safest: one approach is to use a class blog to share (anonymously) some or all of the work from pupils' individual blogs. If you have a publicly readable blog make sure you moderate comments before they become live online. Brief how to respond appropriately to others' posts.</p>	<p>Finally they use the gallery to exhibit their own artwork.</p> <p>E-Safety</p> <p>If pupils are sharing their content online, follow all the relevant school policies. If using Google Earth to locate real or imaginary buildings, the pupils should not share the location of their home. When uploading examples of work to the virtual gallery, respect the intellectual property of the original artists, acknowledging sources by attaching virtual labels to the work.</p>
	<p>We are Web Developers</p> <p>Work together to create a website explaining e-safety and responsible online behaviour at school and at home</p> <p>E-Safety</p> <p>Keep an eye on how the websites evolve, intervening appropriately if difficulties arise. Strike a balance between allowing pupils to think through e-safety for themselves and steering them towards safe and responsible behaviour. Cover aspects of e-safety, including appropriate conduct online and issues around access to online content.</p>	<p>We are Cryptographers</p> <p>Learn more about communicating information securely through an introduction to cryptography. They investigate early methods of communicating over distances, learn about two early ciphers, and consider what makes a secure password.</p> <p>E-Safety</p> <p>Usual precautions over online access should be in place. If pupils upload work they create for others to see, make sure precautions are in place to protect their identity, contact details and intellectual property. One of the key messages in the unit is the need for password security. The pupils should understand that they should not share passwords with anyone else, even family members and close friends.</p>	<p>We are Game Developers</p> <p>The pupils plan their own simple computer game. They design characters and back grounds, and create a working prototype, which they develop further based on feedback they receive.</p> <p>E-Safety</p> <p>If the pupils do register for accounts, they need to give a parent's or carer's email address, for which you will need permission. Once registered, the pupils can share their work with the global Scratch community in a safe online space.</p>
	Autumn	Spring	Summer
Year 6	<p>We are App Planners</p> <p>The pupils learn about the capabilities of smartphones, think of a problem that a smartphone or tablet app could solve, and then pitch the idea for their app.</p> <p>E-Safety</p> <p>When using GPS devices, pupils should consider it unwise to share location. With discussion with your SL team on allowing pupils to bring their own smart device, ensuring you have parental consent, agree conditions under which the devices can be used, and have some way to keep them safe and secure when not needed.</p>	<p>We are Market Researchers</p> <p>The pupils conduct research into the potential market for their app, using an online survey together with interviews or focus groups. They analyse the data and information they obtain and create a presentation summarising their findings.</p> <p>E-Safety</p> <p>Precautions over the protection of the pupil's identity and contact details should be in place. Remind pupils about SMMS e-safety policy. If pupils' surveys allow for free-text responses, you should check these before pupils view them. Depending on who pupils interview or include in their focus group, they may need to be chaperoned. The pupils should ensure informed assent or consent and treat responses confidentially and/or provide anonymity.</p>	<p>We are App Developers</p> <p>The pupils will draw on their work from the previous Year 6 units to create a working app. They write down their algorithms, and use a programming toolkit to code them.</p> <p>E-Safety</p> <p>Precautions over the protection of the pupil's identity and contact details should be in place if they upload work they create for others to see. If, after discussion with your senior leadership team, you allow the pupils to bring in their own smartphones or tablets to school, ensure you have parental consent, agree conditions under which the devices can be used, and some way to keep them safe and secure when not in use.</p>
	<p>We are Project Managers</p> <p>The pupils will work collaboratively to develop a smartphone or tablet app. Pupils apply computational thinking to the task of managing a complex project.</p> <p>E-Safety</p> <p>Ensure the usual precautions and procedures are in place when pupils research the capabilities of smartphones. Precautions over the protection of the pupil's identity and contact details should be in place when they are using web based services. Remind pupils about the SMMS e-safety policy. This unit provides an opportunity for pupils to think about what is acceptable or unacceptable behaviour in a collaborative workspace.</p>	<p>We are Interface Designers</p> <p>The pupils will start to design the look/feel or their app's interface. They begin by sketching ideas, planning the different screen layouts for their app and developing these using a wire framing tool.</p> <p>E-Safety</p> <p>Ensure the usual precautions and procedures are in place when pupils research capabilities of smartphones. Precautions over the protection of the pupil's identity and contact details should be in place if pupils are using a web-based service. Remind pupils about SMMS e-safety policy. Pupils source third-party media for use in their project, so remind them of the importance of observing copyright, and encourage them to use Creative Commons licensed content where possible.</p>	<p>We are Marketers</p> <p>Work collaboratively to produce marketing materials for the app they have been developing. They create a poster / flyer, develop a simple website, shoot a video.</p> <p>E-Safety</p> <p>Precautions over the protection are in place when the pupils research marketing materials or source third party content via the web. arrangements are completed. Emphasise that the pupils should abide by any licence terms involving third-party copyright materials if they wish to use these in their own marketing materials. Talk to SLT if pupils will make their apps publicly available and the risk as a result.</p>