Computing Intention Map

Upper Key Stage Two

Placing learning at the heart of everything we do.

Upper KS2 Intention Map 2021 - 2022

Term One

Learning Intentions

1. *Select, use and combine a variety of software, including internet services, to meet a goal.*
2. *Use software to collect, analyse, evaluate and present data and information.*
3. *Understand the vocabulary of spreadsheet software (cell, row, column, formula)*

Knowledge Intentions

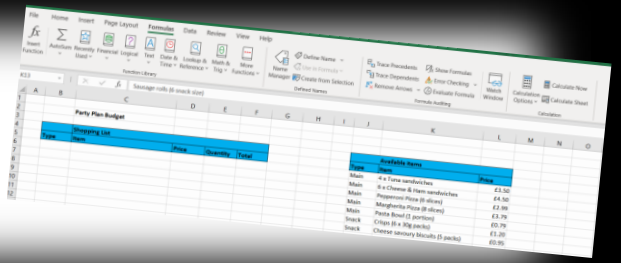
1. *A variety of software, such as word processing software, image editing software or internet services, can be selected, used and combined to meet a goal.*
2. *Data handling includes databases, graphs, charts and tables.*
3. *Databases, graphs, charts and tables can be used to present the findings of investigations.*

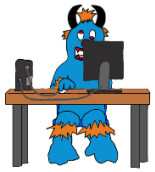
End product: Design a spreadsheet for a specific purpose

The IT Suite

Hardware: Laptop

Software: Microsoft Excel





Term Two

Learning Intentions

1. *Demonstrate how programs run in an exact order by following a sequence of instructions, and test and debug programs.*
2. *Select, use and combine a variety of software, including internet services, to meet a goal.*
3. *Identify how a new piece of software or an app can increase creativity.*

Knowledge Intentions

1. *Decomposition is breaking down a problem down into smaller parts to make it easier to process and following a sequence of instructions.*
2. *Decomposition is useful for checking programs and debugging because it saves time.*

End products: Create a game with an opponent and a path for their character to follow in the format of a race.

The IT Suite

Hardware: Laptop

Software: Kodu Game Lab

Term Three

Learning Intentions

1. *Compare the way in which work can be shared on a school network with the way work is shared at home or in the wider world.*
2. *Discern where web content might originate from and recognise that this gives clues to its authenticity, reliability and security.*
3. *Demonstrate appropriate online behaviour and apply a range of strategies to protect themselves and others from potential online dangers, inappropriate behaviour and bullying. Discuss the impact that digital content can have and why it is important to discuss their use of technology with an adult.*

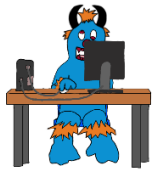
Knowledge Intentions

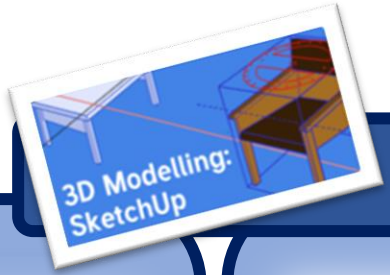
1. *Some websites have more reliable content than others and content should be verified with another independent source.*
2. *Working online requires a level of responsibility and strategies to keep safe, including protecting private information and accounts. This enables people to protect themselves and others from potential online dangers, inappropriate behaviour and bullying. Any concerns should be reported to a trusted adult, the police or child protection organisations.*
3. *Digital content can affect others and be available to anyone. Digital content is traceable, which means it can be tracked to the person who created it. To keep safe, it is important to discuss technology use with a trusted adult.*
4. *Citing sources is giving credit to the person or website that created the information. Using someone else's work without citing it is called plagiarism and is a form of cheating.*

End products: Create a Comic Strip to explain how to stay safe online, with eamples of unsafe behavouir

The IT Suite

Hardware: Laptop or tablet
Software: Internet





Term Four

Learning Intentions

1. *Create, select and combine a range of texts, images, sound clips and videos for given purposes.*
2. *Apply computing skills to create content using unfamiliar programs or apps.*
3. *Select, use and combine appropriate technology to create a solution that will have an impact on others.*
4. *Discuss the impact that digital content can have and why it is important to discuss their use of technology with an adult.*

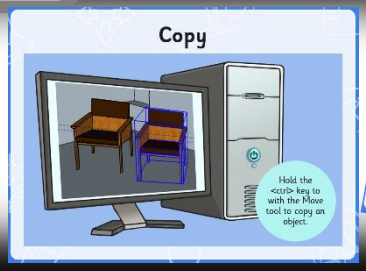
Knowledge Intentions

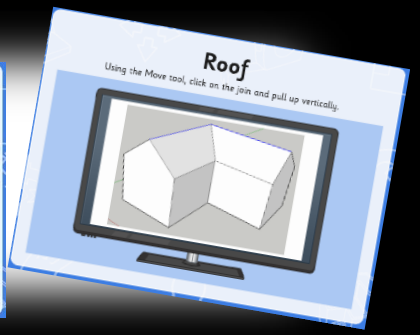
1. *Creating, selecting and combining a range of texts, images, sound clips and videos for given purposes could include creating a web page, slide show presentation, short film or an animation.*
2. *Using prior knowledge and experience of computing skills can be applied to create content using unfamiliar programs or apps.*
3. *Digital content can affect others and be available to anyone. Digital content is traceable, which means it can be tracked to the person who created it. To keep safe, it is important to discuss technology use with a trusted adult.*
4. *A range of technologies can be selected, used and combined, such as using different hardware and software to create a solution that will have an impact on others.*

End product: Children create a room with wall features, including at least 2 windows that are the same, decorations and carpets and furniture from the 3D warehouse, with some items copied.

The IT Suite

Hardware: Laptop
Software: SketchUp





Term Five

Learning Intentions

1. *Recognise that digital content can be edited online.*
2. *Select, use and combine a variety of software, including internet services, to meet a goal. Identify how using different hardware can increase creativity and productivity. Identify how a new piece of software or an app can increase creativity.*
3. *Identify the benefits and risks of devices broadcasting the user's location and of giving personal information to different organisations. Combine a range of technology to achieve a particular outcome.*

Knowledge Intentions

1. *Digital content may have been edited online by anyone, and so it is important to verify content against other independent or reputable sources.*
2. *A variety of software, such as word processing software, image editing software or internet services, can be selected, used and combined to meet a goal.*
3. *Search engines take many factors into account, such as the quality of the site, number of updates or number of matches to keywords. However, search engines do not consider whether the content is true, age-appropriate or relevant, and so users need to be aware of these things when searching.*
4. *Some hardware is more effective than others in particular contexts, such as using virtual reality or a touchscreen rather than a mouse to meet a specific need. Choosing the right hardware can increase creativity and productivity.*

End products: An edited and published film to present to the class

The IT Suite

Hardware: Laptop and tablet
Software: Word, internet, and video editing software

Term Six

Learning Intentions

1. *Discern where web content might originate from and recognise that this gives clues to its authenticity, reliability and security.*
2. *Apply computing skills to create content using unfamiliar programs or apps.*

Knowledge Intentions

1. *Creating, selecting and combining a range of texts, images, sound clips and videos for given purposes could include creating a web page, slide show presentation, short film or an animation.*
2. *Some websites have more reliable content than others and content should be verified with another independent source.*
3. *Using prior knowledge and experience of computing skills can be applied to create content using unfamiliar programs or apps.*
4. *Working online requires a level of responsibility and strategies to keep safe, including protecting private information and accounts. This enables people to protect themselves and others from potential online dangers, inappropriate behaviour and bullying. Any concerns should be reported to a trusted adult, the police or child protection organisations*

End product: Design the ultimate new bedroom for a 10- year old

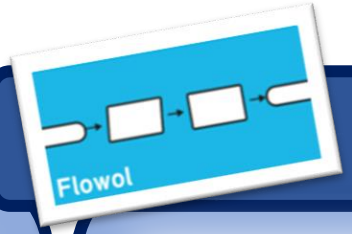
The IT Suite

Hardware: Laptop

Software: Microsoft Office, Scratch, SketchUp, Flowol and the Internet

UKS2 Intention Map 2022 - 2023

Term One



Learning Intentions

1. *Demonstrate how programs run in an exact order by following a sequence of instructions, and test and debug programs.*
2. *Write a program to control a physical system, which may include output devices, such as motors, lights and buzzers.*
3. *Select, use and combine a variety of software, including internet services, to meet a goal.*
4. *Identify how a new piece of software or an app can increase creativity.*

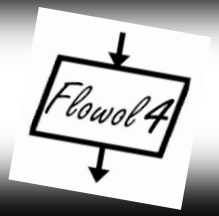
Knowledge Intentions

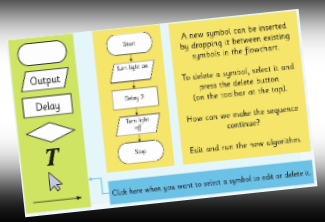
1. *Decomposition is breaking down a problem down into smaller parts to make it easier to process and following a sequence of instructions. Decomposition is useful for checking programs and debugging because it saves time.*
2. *Input and output devices can be combined with programming software to control a physical system, such as using sensors to create a sensory station that incorporates motors, lights and buzzers.*
3. *Some hardware is more effective than others in particular contexts, such as using virtual reality or a touchscreen rather than a mouse to meet a specific need. Choosing the right hardware can increase creativity and productivity.*
4. *A range of technologies can be combined to achieve a particular outcome. For example, sensors (input), a computing device (hardware) and lights (hardware) can be used together to create a set of traffic lights.*

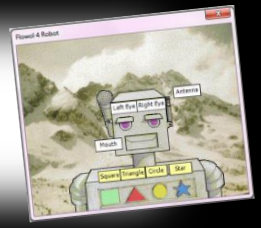
End Product: Design, write and debug a flowchart program for a given task

The IT Suite

Hardware: Laptop
Software: Flowol







Term Two

Learning Intentions

1. *Create, select and combine a range of texts, images, sound clips and videos for given purposes. Apply computing skills using unfamiliar hardware to solve a problem successfully. Apply computing skills to create content using unfamiliar programs or apps. Select, use and combine appropriate technology to create a solution that will have an impact on others.*
2. *Demonstrate appropriate online behaviour and apply a range of strategies to protect themselves and others from potential online dangers, inappropriate behaviour and bullying.*

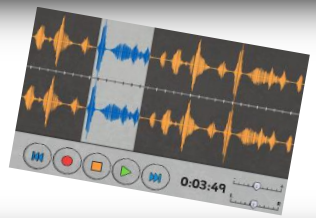
Knowledge Intentions

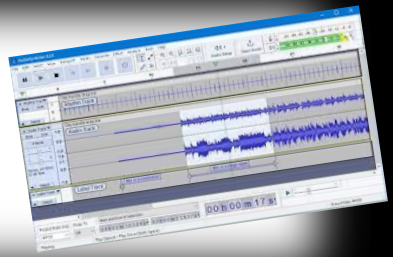
1. *Sequences of instructions (algorithms) that contain IF, THEN and OTHERWISE statements are called selections. The computer will complete operations based on whether the conditions of these selections are met or not.*
2. *Creating, selecting and combining a range of texts, images, sound clips and videos for given purposes could include creating a web page, slide show presentation, short film or an animation.*
3. *Using prior knowledge and experience of computing skills can be applied to create content using unfamiliar programs or apps.*
4. *Working online requires a level of responsibility and strategies to keep safe, including protecting private information and accounts. This enables people to protect themselves and others from potential online dangers, inappropriate behaviour and bullying. Any concerns should be reported to a trusted adult, the police or child protection organisations.*
5. *A range of technologies can be selected, used and combined, such as using different hardware and software to create a solution that will have an impact on others.*

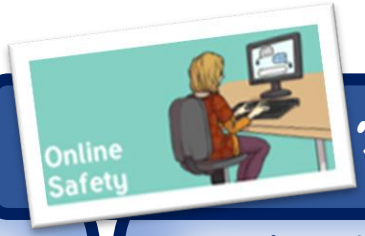
End Product: Create a short radio show/podcast

The IT Suite

Hardware: Laptop
Software: Audacity







Term Three

Learning Intentions

1. *Critically evaluate search engine results and identify factors that may affect ranking, such as how long the site has existed, the number of links to the site and whether the organisation has paid to have their site promoted.*
2. *Name some of the positives and negatives of communicating with others online. Recognise that sending intimate images and content and using offensive language online is a risk and has a permanent online trail (digital footprint). Identify the benefits and risks of devices broadcasting the user's location and of giving personal information to different organisations. Exchange online communications, making use of a growing range of available features and being aware of security settings. Recognise that digital content can be edited online.*

Knowledge Intentions

1. *The positives of communicating online include the speed, low cost and ability to communicate globally. The negatives of communicating online include the threat to privacy, influencing of others, access to technology and anonymity.*
2. *People online are not always who they say they are and may use intimate images or content inappropriately. Once something is online, it is not under the user's control and can be made public. Using offensive language can affect others negatively and is a form of bullying called 'trolling'.*
3. *The benefits of devices broadcasting the user's location and passing on personal information include improved customer service, allowing organisations to analyse data and improving the quality of applications. Risks include identity theft, cyberstalking, victimisation and threat to privacy.*

End Product: Use knowledge of Online Safety to design a multiple-choice quiz

The IT Suite

Hardware: Laptop or Tablet
Software: Internet

Term Four

Learning Intentions

1. *Demonstrate how programs run in an exact order by following a sequence of instructions, and test and debug programs.*
2. *Select, use and combine a variety of software, including internet services, to meet a goal.*

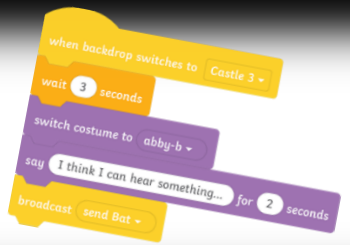
Knowledge Intentions

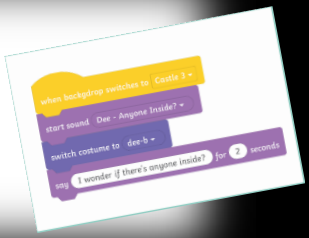
1. *Decomposition is breaking down a problem down into smaller parts to make it easier to process and following a sequence of instructions. Decomposition is useful for checking programs and debugging because it saves time.*
2. *Some software or apps are designed to help increase creativity by saving time or making tasks easier, such as being able to combine text, images, audio or video content into one place.*
3. *A range of technologies can be combined to achieve a particular outcome. For example, sensors (input), a computing device (hardware) and lights (hardware) can be used together to create a set of traffic lights.*

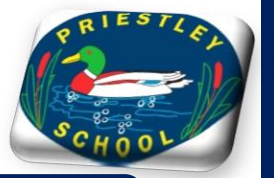
End Product: Create an animated story controlling timings, sprite visibility, sequence of events and voice audio.

The IT Suite

Hardware: Laptop
Software: Scratch







Term Five

Learning Intentions

1. *Design simple sequences of instructions (algorithms), including IF, THEN and OTHERWISE commands, to decide if something is true or false.*
2. *Select, use and combine a variety of software, including internet services, to meet a goal.*

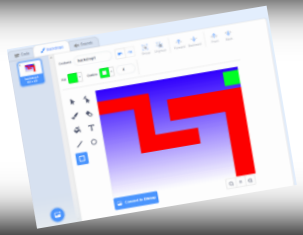
Knowledge Intentions

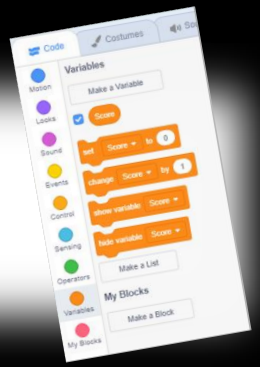
1. *Sequences of instructions (algorithms) that contain IF, THEN and OTHERWISE statements are called selections. The computer will complete operations based on whether the conditions of these selections are met or not.*
2. *Using prior knowledge and experience of computing skills can be applied to create content using unfamiliar programs or apps.*
3. *A range of technologies can be combined to achieve a particular outcome. For example, sensors (input), a computing device (hardware) and lights (hardware) can be used together to create a set of traffic lights.*

End Product: Design, write and debug a game with characters, levels and point scoring.

The IT Suite

Hardware: Laptop
Software: Scratch





Term Six

Learning Intentions

1. *Select, use and combine a variety of software, including internet services, to meet a goal. Identify how a new piece of software or an app can increase creativity. Combine a range of technology to achieve a particular outcome.*
2. *Co2/1.7 results and identify factors that may affect ranking, such as how long the site has existed, the number of links to the site and whether the organisation has paid to have their site promoted.*
3. *Critically evaluate search engine results and identify factors that may affect ranking, such as how long the site has existed, the number of links to the site and whether the organisation has paid to have their site promoted.*

Knowledge Intentions

1. *Digital content may have been edited online by anyone, and so it is important to verify content against other independent or reputable sources.*
2. *A variety of software, such as word processing software, image editing software or internet services, can be selected, used and combined to meet a goal.*
3. *Search engines take many factors into account, such as the quality of the site, number of updates or number of matches to keywords. However, search engines do not consider whether the content is true, age-appropriate or relevant, and so users need to be aware of these things when searching.*
4. *Some hardware is more effective than others in particular contexts, such as using virtual reality or a touchscreen rather than a mouse to meet a specific need. Choosing the right hardware can increase creativity and productivity.*

End Product: design a new game, using appropriate software to present information and advertise a product launch.

The Design Studio

Hardware: Laptop

Software: Scratch, Excel, Kodu, Video editing software

Checklist

	National Curriculum Programme of Study	2021 - 2022	2022 - 2023
Computing	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	*T2,*	*T1, T4, T5*
	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output	*T2*	*T1, T4, T5*
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	*T2*	*T1, T4, T5*
	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	*T3*	*T3*
	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	*T3, T5, T6*	*T6*
	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.	*T1, T2, T4, T5, T6*	*T1, T2, T4, T6*
	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	*T3, T4, T5*	*T2, T3, T6*

	YEAR A 2020 - 2021						Year B 2021 - 2022					
	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Programming												
Multimedia												
Data Handling												
Technology in our lives												
Online Safety												