Year 6 Multimedia Knowledge Map

Expectations

- I can talk about audience, atmosphere and structure when planning a particular outcome.
- I can confidently identify the potential of unfamiliar technology to increase my creativity.
- I can combine a range of media, recognising the contribution of each to achieve a particular outcome.
- I can tell you why I select a particular online tool for a specific purpose.
- I can be digitally discerning when evaluating the effectiveness of my own work and the work of others.

Vocabulary to use

Animate Animation
App
Audience
Bullet points
Clipart
Comic strip
Document
Edit
Folder
Font
Greenscreen
Insert
Heading / sub-heading
Hyperlink
Layout
Narration
Persuasive
Production
Right click
Select
Screen shot
Shift
Slides
Software
Sound effect
Sound recording
Storyboard
Style
Tab
Template
Theme

Skills

- Effectively use right click menu within documents and presentations
- Recognise file types for text, image, and video files
- Save as a particular file type
- Select menu options within a variety of apps
- Create tables
- Use find and replace when editing documents
- Store documents and videos online where they can be accessed by themselves and shared with others
- Use knowledge of software and apps to combine technologies to support my learning

Expected prior learning

- Use editing tools to refine work
- Use bullet points and text boxes
- Select and combine use of appropriate tools to create effect on audience
- Work collaboratively on documents and presentations

Cross curriculum context

- English
- Capture learning in a topic
- Choose to use technology to present historical, geographical, religious, cultural, mathematical, or other learning

Experiences

- Create promotional video
- Use hyperlinks within a non-linear presentation
- *Build a location within Minecraft and capture to use within own creative writing*

Concepts and understanding

- Plan for atmosphere and outcomes
- Identify technology to increase potential for creativity
- Select online tools for different purposes
- Different media have different file types

Develop Computational thinking

Expectations: Computational thinker model http://bit.ly/compthinkingSomerset

Attitudes
Comfortable making mistakes
Perseverance
Imagination
Collaboration

Skills
Pattern recognition
Decomposition
Algorithm design
Abstraction and generalisation

Year 6 Programming Knowledge Map

Expectations

- I can deconstruct a problem into smaller steps, recognising similarities to solutions used before.
- I can explain and program each of the steps in my algorithm.
- I can evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm.
- I can recognise when I need to use a variable to achieve a required output.
- I can use a variable and operators to stop a program.
- I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen.
- I can use logical reasoning to detect and correct errors in a algorithms and programs.

Vocabulary to use

Algorithm
Block
Collaboration
Command
Computational thinking
Control
Debug
Decomposition
Design
Effect
Event
Forever
Imagine
Implement
Input
Make mistakes
Pattern
Output
Persevere
Repeat
Rotation
Selection (If Then)
Sequence
Sprite
Variable
X position / Y position

***Vocabulary** to develop*

Abstraction
Broadcast

Skills

- Securely access a variety of devices and online resources
- Store projects online where they can be accessed by themselves and shared with others
- Work collaboratively to learn and create
- Investigating an individual block to improve understanding
- Use abstraction to identify ideas to incorporate in design
- Make a block - define a sequence as a procedure to use within a program
- Use operator blocks for calculations, including pick random
- Self and peer review
- Review, refine and improve projects

Expected prior learning

- Make and use variables
- Use selection, forever and operator blocks
- Design process including thinking through algorithm, identifying sprites and background
- Create and import sprites and backgrounds
- Creativity being a combination of imagination and logical thinking
- Identifying inputs and outputs

Cross curriculum context

- English: participation in collaborative conversations, give well-structured descriptions; use pattern recognition and decomposition within spelling, word reading and structure of writing; algorithms when planning writing; abstraction to identify main ideas
- Maths: understanding of number, properties of shapes, problem solving

Experiences

- Use of block challenges to assess knowledge
- Predict, Run, Investigate, and modify a simple and a more complex Scratch Times Table quiz
- Use a variable as a score
- *Make times table quiz more efficient*
- Design process to make own quiz
- RAG algorithm and implement as a program
- Apply knowledge using other software / apps
- *Apply knowledge to program a physical object*

Concepts and understanding

- Abstraction to increase manageability and effectiveness of design process
- Errors can occur in algorithm as well as in program
- Variables can be an input and can be used to control output

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Year 6 Technology in our Lives Knowledge Map

Expectations

- I can tell you the Internet services I need to use for different purposes.
- I can describe how information is transported on the Internet.
- I can select an appropriate tool to communicate and collaborate online.
- I can talk about the way search results are selected and ranked.
- I can check the reliability of a website.
- I can tell you about copyright and acknowledge the sources of information that I find online.
- I know that websites can use my data to make money and target their advertising

Vocabulary to use

Blog
Citation
Client
Copyright
Digital content
Digital advertising
Hyperlink
Internet Service Provider
QR Code
Reliability
Search engine
Search result
Search query
Vlog
Webpage
Website

***Vocabulary** to develop*

Domain
Filter
LAN Local Area Network
Packets
Protocol
Router
WAN Wider Area Network

Skills

- Securely access a variety of devices and online resources
- Store documents and videos online where they can be accessed by themselves and shared with others
- Use knowledge of software and apps to combine technologies to support my learning
- Explanation of learning
- Create a graphic organiser
- Use effective search skills – filters, knowledge of appropriate search engines and websites
- Use a collaborative tool to collect and share information with peers

Expected prior learning

- World Wide Web is one part of Internet
- Evaluate information online for reliability
- Recognise persuasion in digital adverts
- Efficient web searching
- Search results are selected and ranked by private companies
- Cite sources of images and text
- *Participate in Scratch online community*

Cross curriculum context

- English: ask relevant questions, explain understanding of information, use spoken language, identify main ideas, write for different purposes, distinguish between fact and opinion
- Investigate information for a topic
- Investigate information for historical, geographical, religious, cultural, mathematical or other learning

Experiences

- Make a list of internet services and their use
- Explanation of how information is stored and moves on the internet
- Create a graphic organiser to represent a webpage
- Investigate search engines
- Plan an effective strategy for research
- Explanation of citing sources of information
- Use online collaborative tools such as Padlet

Concepts and understanding

- Internet services are used for different purposes
- Information is moved in packets on the internet
- Responsibility is part of using online resources for own purposes

Develop Computational thinking

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Perseverance
Imagination
Collaboration

Skills
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Algorithm design
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Year 6 Data Handling Knowledge Map

Expectations

- I can plan the process needed to investigate the world around me.
- I can select the most effective tool to collect data for my investigation.
- I can check the data I collect for accuracy and plausibility.
- I can interpret the data I collect.
- I can present the data I collect in an appropriate way.
- I use the skills I have developed to interrogate a database.

Vocabulary to use

Analyse
Average
Chart
Collect
Complex questions
Data
Database
Data logger
Decision tree
Field
Graph
Hypothesis
Information
Interrogate
Interpret
Investigate Knowledge
Model
Plausible
Predict
Process
Questions
Record
Results
Tally
Sort
Venn diagram

***Vocabulary** to develop*

Anomaly
Formulae

Skills

- Store documents online where they can be accessed by themselves and shared with others
- Use knowledge of software and apps to combine technologies to support my learning
- Interrogate an online database
- Interpret data
- Plan an investigation of data collected by others
- Plan an investigation that will require data logging
- Identify outcomes to share with others
- Present outcomes responsibly

Expected prior learning

- Use a data logger (app or device) to sense and record discrete and continuous data
- Work collaboratively to plan an investigation
- Interrogate information collected and presented by others
- Add to a database and/or a spreadsheet
- Graph information from a database or a spreadsheet

Cross curriculum context

- English: ask relevant questions, explain understanding of information, identify main ideas, write for different purposes, distinguish between fact and opinion
- Maths: Use appropriate software and data loggers to create and interpret line graphs. Complete and interpret tables to present and understand information.
- Investigate and represent information for learning across the curriculum

Experiences

- Consider data and information in an online database eg Olympics
- Explore different online databases
- Use an online database to answer questions set by friends
- Plan an investigation based on online data
- Select information to present to others
- *Use data loggers and other devices for an investigation about fitness*
- Present findings of an investigation to others

Concepts and understanding

- Data becomes information when it is set in a context and becomes knowledge as it is interpreted and presented to others
- We have a responsibility to share accurate data and information
- Big Data is available to increase information and knowledge

Develop Computational thinking

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