Year 5 Multimedia Knowledge Map

eLIM Support Services for Education · sse

Expectations

- I can use text, photo, sound and video editing tools to refine my work.
- I can use the skills I have already developed to create content using unfamiliar technology.
- I can select, use and combine the appropriate technology tools to create effects that will have an impact on others.
- I can select an appropriate online or offline tool to create and share ideas.
- I can review and improve my own work and support others to improve their work.

Vocabulary to use

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

Skills

- Use keyboard to confidently input text, characters and numbers
- Use bullet points
- Add text boxes
- Move, resize and rotate shapes, text and pictures
- Use common keyboard shortcuts on laptops and PCs
- Combine appropriate apps using the camera roll on a tablet
- Combine software to achieve effective outcomes.
- Work collaboratively on documents and presentations
- Create hyperlinks within and between documents

Expected prior learning
- Create hyperlinks to websites
- Use spell checker effectively
- Use a variety of media to create atmosphere
- Provide and use constructive feedback

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 documents and slides
- Presentation using slides
- *Use greenscreen to create weather forecast*
- Create audio including sound effects
- *Use CAD to create a building*

Concepts and understanding
- Effective strategies can be used to refine work
- Skills and knowledge can be used with unfamiliar technologies
- Effective outcomes can impact on others

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 5 Programming Knowledge Map

Expectations

- I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.
- I can refine a procedure using repeat commands to improve a program.
- I can use a variable to increase programming possibilities.
- I can change an input to a program to achieve a different output.
- I can use 'if' and 'then' commands to select an action.
- I can talk about how a computer model can provide information about a physical system.
- I can use logical reasoning to detect and debug mistakes in a program.
- I use logical thinking, imagination, and creativity to extend a program.

Vocabulary to use

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

Skills

- Work collaboratively to learn and create
- Investigate an individual block to improve understanding of what it will do
- Make and use a variable in a program
- Creating and importing sprites and backgrounds
- Recording voice
- *Edit sound in Scratch*
- Use selection and forever
- Use operator blocks
- Change input to a program
- Decomposition of a problem
- Thinking through an algorithm as part of a design
- Identify sprites and backgrounds as part of design
- Recognising and debugging an error
- Evaluate and refine project

Expected prior learning

- Use of selection (if … then)
- Make a background
- Decomposition to break a problem up into smaller parts
- Keep testing a program when putting it together
- Change properties of a sprite
- Implementation of an algorithm as a program
- Articulating explanation of algorithm and blocks
- Self and peer assessment

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 Scratch program that includes variables
- Use and modify to improve sequences
- Design process to make a simple counting system
- RAG algorithm and implement as a program
- Apply knowledge using other software / apps
- *Apply knowledge to program a physical object*

Concepts and understanding

- Decomposition as part of algorithm design
- Use of variables to control a program
- Importance of forever as part of selection
- Imagination and logical thinking increase creativity

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 5 Technology in our Lives Knowledge Map

eLIM Support Services for Education **sse**

Expectations
- I can describe different parts of the Internet.
- I can use different online communication tools for different purposes.
- I can use a search engine to find appropriate information and check its reliability.
- I can recognise and evaluate different types of information I find on the World Wide Web.
- I can describe the different parts of a webpage.
- I can find out who the information on a webpage belongs to
- I know which resources on the Internet I can download and use.
- I can describe the ways in which websites advertise their products to me.

Vocabulary to use

Blog	**Search result**
Citation	**Search query**
Communicate	**Vlog**
Computing devices	**Webpage**
Copyright	**Website**
Email	**World Wide Web**
Digital content	
Digital advertising	***Vocabulary to develop***
Hyperlink	
Internet	*Filter*
QR Code	*Internet Services*
Reliability	
Search engine	

Skills

- Identify different parts of the internet
- Explain understanding
- Efficient web searching
- Distinguish between reliable and unreliable sources of information
- Recognise persuasion in advertising
- Recognise resources which can be downloaded (considering copyright)
- Cite sources of images and text
- Add positive comments online
- *Use of safe alias in online community*
- *Effective navigation of Google Earth*

Expected prior learning

- Recognise different search engines
- Identify key words for searches
- Use filters for efficient searching
- Evaluate information online
- Recognise copyright and images that can be used
- World Wide Web is one part of Internet

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

- Explanation of different parts of the internet
- Explanation of how search engines work
- Evaluate content of a website
- Create a checklist to identify reliable information
- Investigate digital advertising
- *Use Google Earth to explore earth and locality*
- *Participate in Scratch online community*
- *Consider access to the internet across world*

Concepts and understanding

- World wide web is one part of the Internet that includes websites
- Reliability of information
- Search results are selected and ranked by private companies

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 5 Data Handling Knowledge Map

Expectations

- I can use a spreadsheet and database to collect and record data.
- I can choose an appropriate tool to help me collect data.
- I can present data in an appropriate way.
- I can search a database using different operators to refine my search.
- I can talk about mistakes in data and suggest how it could be checked.

Vocabulary to use

Chart	**Model**
Collect	**Predict**
Complex questions	**Questions**
Data	**Record**
Database	**Results**
Data logger	**Tally**
Decision tree	**Sort**
Field	**Venn diagram**
Graph	
Hypothesis	***Vocabulary* to develop**
Information	*Anomaly*
Interrogate	*Average*
Interpret	*Formulae*
Investigate	*Plausible*

Skills

- Combine appropriate apps using the camera roll on a tablet
- Combine software to achieve effective outcomes.
- Work collaboratively on documents and presentations
- Interrogate information presented by others
- Plan an investigation
- Measure data in different circumstances
- Identify data type to collect – continuous or discrete
- Add to a spreadsheet
- Add to a database
- Graph information in database or spreadsheet

Expected prior learning

- Use a data logger (app or device) to sense and record discrete and continuous data
- Use an online database
- Plan an investigation
- Plan a database

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
- 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 scientific, geographical, mathematical, or other learning

Experiences

- Collect data about planets, create Top Trump cards
- Create a database or spreadsheet of planets
- Answer questions by interrogating database created by others
- Identify errors in a database or spreadsheet
- Present investigation findings to others
- Compare databases
- *Consider conservation of water through data*
- *Learn about computer modelling*
- *Measure rainfall and compare to national data*
- *Plan an investigation about melting and cooling*
- *Investigate active lifestyle choices*

Concepts and understanding

- Data becomes information as it is interpreted and presented to others
- Data can be collected in different ways and may be discrete or continuous
- Plausibility of data

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