

# Diamond Year 3 – Computing Medium Term Planning

## (Lower KS2 Curriculum – Year A)

Differentiation by input see the weekly planning sheet/

-Key vocab for each learning objective is in red font /

-Resources -see the weekly planning /

-Minimum Assessment for Learning strategies for all topics = Peer Talk; targeted questioning; mini white boards; and self and peer marking

- Long term memory development strategies= Recapping previous learning at the start of each new topic / Long term memory strategy linked to the objectives on this sheet for each week

- Computing Cultural Capital = are responsible, competent, confident and creative users of information and communication technology.

	<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>	<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>
<b>Autumn first half</b>  <b>Computing Systems and Networks – Connecting Computers</b>	<u>How does a digital device work?</u>  <u>Learning Objective</u> - To explain how digital devices function  <u>Success Criteria</u> - I can explain that digital devices accept inputs - I can explain that digital devices produce outputs - I can follow a process	<u>What parts make up a digital device?</u>  <u>Learning Objective</u> - To identify input and output devices  <u>Success Criteria</u> - I can classify input and output devices - I can design a digital device - I can model a simple process	<u>How do digital devices help us?</u>  <u>Learning Objective</u> - To recognise how digital devices can change the way we work  <u>Success Criteria</u> - I can explain how I use digital devices for different activities - I can recognise similarities between using digital devices and non-digital tools - I can suggest differences between using digital devices and non-digital tools	<u>How am I connected?</u>  <u>Learning Objective</u> - To explain how a computer network can be used to share information  <u>Success Criteria</u> - I can discuss why we need a network switch - I can explain how messages are passed through multiple connections - I can recognise different connections	<u>How are Computers connected?</u>  <u>Learning Objective</u> - To explore how digital devices can be connected  <u>Success Criteria</u> - I can demonstrate how information can be passed between devices - I can explain the role of a switch, server, and wireless access point in a network - I can recognise that a computer network is made up of a number of devices	<u>What does our school network look like?</u>  <u>Learning Objective</u> - To recognise the physical components of a network  <u>Success Criteria</u> - I can identify how devices in a network are connected together - I can identify networked devices around me - I can identify the benefits of computer networks	Assessment, Consolidation and Review
<b>Key Vocabulary</b>	Digital device, input, process, output	Digital device, input, process, output	Program, digital, non-digital	Connection, network, network switch	Server, wireless access point	Network cables, network sockets	
<b>KS2 Computing NC Links</b>	2.2, 2.4, 2.6	2.2, 2.4, 2.6	2.2, 2.4, 2.6	2.2, 2.4, 2.6	2.2, 2.4, 2.6	2.2, 2.4, 2.6	
<b>Computing Strand</b>	CS	CS	CS, IT	CS, NW	CS, NW	CS, NW	
<b>Education for a Connected World</b>							

## **Diamond Year 3 – Computing Medium Term Planning** **(Lower KS2 Curriculum – Year A)**

[illegible]

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	<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>	<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>
<b>Spring second half</b>  <b>Data and Information – Branching Databases</b>	<b>Yes or no questions</b>  <u>Learning Objective</u> - To create questions with yes/no answers  <u>Success Criteria</u> - I can create two groups of objects separated by one attribute - I can investigate questions with yes/no answers - I can make up a yes/no question about a collection of objects	<b>Making groups</b>  <u>Learning Objective</u> - To identify the object attributes needed to collect relevant data  <u>Success Criteria</u> - I can arrange objects into a tree structure - I can create a group of objects within an existing group - I can select an attribute to separate objects into groups	<b>Creating a branching database</b>  <u>Learning Objective</u> - To create a branching database  <u>Success Criteria</u> - I can group objects using my own yes/no questions - I can prove my branching database works - I can select objects to arrange in a branching database	<b>Structuring a branching database</b>  <u>Learning Objective</u> - To explain why it is helpful for a database to be well structured  <u>Success Criteria</u> - I can create yes/no questions using given attributes - I can explain that questions need to be ordered carefully to split objects into similarly sized groups - I can compare two branching database structures	<b>Using a branching database</b>  <u>Learning Objective</u> - To identify objects using a branching database  <u>Success Criteria</u> - I can select a theme and choose a variety of objects - I can create questions and apply them to a tree structure - I can use my branching database to answer questions	<b>Presenting Information</b>  <u>Learning Objective</u> - To compare the information shown in a pictogram with a branching database  <u>Success Criteria</u> - I can compare two ways of presenting information - I can explain what a branching database tells me - I can explain what a pictogram tells me	Assessment, Consolidation and Review
<b>Key Vocabulary</b>	Attribute, value, questions, table, objects	Branching database, database, attribute, value, questions, objects, equal, even, separate	Branching database, database, attribute, value, questions, objects	Branching database, attribute, questions, structure, compare, order, organise	Branching database, attribute, value, question, j2data, selecting	Compare, information, explain, pictogram, branching database	
<b>KS2 Computing NC Links</b>	2.6	2.6	2.6	2.6	2.6	2.6	
<b>Computing Strand</b>	DI	DI	DI, ET	DD, DI, ET	DI, ET	DD, DI	
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## (Lower KS2 Curriculum – Year A)

	<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>	<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>
<b>Summer first half</b>  <b>Creating Media – Desktop Publishing</b>	<u>Words and pictures</u>  <u>Learning Objective</u> <ul style="list-style-type: none"> <li>- To recognise how text and images communicate information</li> </ul> <u>Success Criteria</u> <ul style="list-style-type: none"> <li>- I can explain the difference between text and images</li> <li>- I can identify the advantages and disadvantages of using text and images</li> <li>- I can recognise that text and images can communicate messages clearly</li> </ul>	<u>Can you edit it?</u>  <u>Learning Objective</u> <ul style="list-style-type: none"> <li>- To recognise that text and layout can be edited</li> </ul> <u>Success Criteria</u> <ul style="list-style-type: none"> <li>- I can change font style, size, and colour for a given purpose</li> <li>- I can edit text</li> <li>- I can explain that text can be changed to communicate more clearly</li> </ul>	<u>Great template!</u>  <u>Learning Objective</u> <ul style="list-style-type: none"> <li>- To choose appropriate page settings</li> </ul> <u>Success Criteria</u> <ul style="list-style-type: none"> <li>- I can create a template for a particular purpose</li> <li>- I can explain what 'page orientation' means</li> <li>- I can recognise placeholders and say why they are important</li> </ul>	<u>Can you add content?</u>  <u>Learning Objective</u> <ul style="list-style-type: none"> <li>- To add content to a desktop publishing publication</li> </ul> <u>Success Criteria</u> <ul style="list-style-type: none"> <li>- I can choose the best locations for my content</li> <li>- I can make changes to content after I've added it</li> <li>- I can paste text and images to create a magazine cover</li> </ul>	<u>Lay it out</u>  <u>Learning Objective</u> <ul style="list-style-type: none"> <li>- To consider how different layouts can suit different purposes</li> </ul> <u>Success Criteria</u> <ul style="list-style-type: none"> <li>- I can choose a suitable layout for a given purpose</li> <li>- I can identify different layouts</li> <li>- I can match a layout to a purpose</li> </ul>	<u>Why desktop publishing?</u>  <u>Learning Objective</u> <ul style="list-style-type: none"> <li>- To consider the benefits of desktop publishing</li> </ul> <u>Success Criteria</u> <ul style="list-style-type: none"> <li>- I can compare work made on desktop publishing to work created by hand</li> <li>- I can identify the uses of desktop publishing in the real world</li> <li>- I can say why desktop publishing might be helpful</li> </ul>	Assessment, Consolidation and Review
<b>Key Vocabulary</b>	<b>Text, images, advantages, disadvantages, communicate</b>	<b>Font, font style, communicate, template</b>	<b>Landscape, portrait, orientation, placeholder, template, layout, content</b>	<b>Desktop publishing, copy, paste</b>	<b>Layout, purpose</b>	<b>Desktop publishing, benefits</b>	
<b>KS2 Computing NC Links</b>	2.5, 2.6	2.5, 2.6	2.5, 2.6	2.5, 2.6	2.5, 2.6	2.5, 2.6	
<b>Computing Strand</b>	CM	CM, ET	CM, ET	CM, ET	CM, DD, ET	CM, DD, ET, IT	
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Summer second half  <b>Programming B – Events and Actions</b>	<u>Moving a sprite</u>  <u>Learning Objective</u> - To explain how a sprite moves in an existing project  <u>Success Criteria</u> - I can choose which keys to use for actions and explain my choices - I can explain the relationship between an event and an action - I can identify a way to improve a program	<u>Maze movement</u>  <u>Learning Objective</u> - To create a program to move a sprite in four directions  <u>Success Criteria</u> - I can choose a character for my project - I can choose a suitable size for a character in a maze - I can program movement	<u>Drawing lines</u>  <u>Learning Objective</u> - To adapt a program to a new context  <u>Success Criteria</u> - I can choose blocks to set up my program - I can consider the real world when making design choices - I can use a programming extension	<u>Adding features</u>  <u>Learning Objective</u> - To develop my program by adding features  <u>Success Criteria</u> - I can build more sequences of commands to make my design work - I can choose suitable keys to turn on additional features - I can identify additional features (from a given set of blocks)	<u>Debugging movement</u>  <u>Learning Objective</u> - To identify and fix bugs in a program  <u>Success Criteria</u> - I can match a piece of code to an outcome - I can modify a program using a design - I can test a program against a given design	<u>Making a project</u>  <u>Learning Objective</u> - To design and create a maze-based challenge  <u>Success Criteria</u> - I can evaluate my project - I can implement my design - I can make design choices and justify them	Assessment, Consolidation and Review
Key Vocabulary	Motion, event, sprite, algorithm, logic	Move, resize, algorithm	Extension block, pen up, set up	Pen, design, event, action, algorithm	Debugging, errors, setup	Design, code, setup, test, debug, actions, events	
KS2 Computing NC Links	2.1, 2.2, 2.3, 2.6	2.1, 2.2, 2.3, 2.6	2.1, 2.2, 2.3, 2.6	2.1, 2.2, 2.3, 2.6	2.1, 2.2, 2.3, 2.6	2.1, 2.2, 2.3, 2.6	
Computing Strand	ET, PG	ET, PG	PG	PG	DD, PG	DD, PG	
Education for a Connected World							