

**St Anthony of Padua Catholic Primary School**

**Computing Medium Term Plan – Year 5 – Summer 2 – Binary Messages**

Lesson	Driving Question	Activity	Assessment
1	What is binary? Can you convert binary into decimal numbers?	<ol style="list-style-type: none"> <li>1. Familiarise yourself with binary by <a href="#">watching a short video</a>.</li> <li>2. Introduce the activity to the class. "What is binary?"</li> <li>3. Watch binary video with the class.</li> <li>4. Use the slides in the Teacher's Handbook to discuss base 10 and binary.</li> <li>5. Print and use the Binary Numbers Cards to show the process of binary conversion to decimal.</li> <li>6. Ask the children to complete the binary worksheets (in pupil journal, digitally or print).</li> <li>7. Ask the children to self assess and review new vocabulary.</li> </ol>	(CS) I can translate binary numbers to decimal.
2	Can you send secret messages using binary?	<ol style="list-style-type: none"> <li>1. Review key points from the previous lesson.</li> <li>2. Ask the children to complete the binary worksheets (in pupil journal, digitally or print).</li> <li>3. Introduce and play "Secret Binary Messages Game". Use school email.</li> <li>4. Show the children What is cryptography? Codebreaking during World War Two video and discuss cryptography.</li> <li>5. Watch video about how the internet works, network traffic and messages. Children to record audio clips in PowerPoint to show understanding of key vocabulary.</li> <li>6. Ask the children to self assess and review new vocabulary.</li> </ol>	(DL) I can access school email and can send emails to classmates and teacher. (DL) I can collaborate with others to develop and improve work. (CS) I can explore networks and internet traffic. (CS) I can translate binary numbers to decimal.
3	What are Spreadsheets?	<ol style="list-style-type: none"> <li>1. Explain to the children they will be learning some new digital skills and how to use Spreadsheets. Use the slides in the Teacher's Handbook.</li> <li>2. Model how to open the Spreadsheet app and basic use.</li> <li>3. Set the children the task of creating Spreadsheet art. Save work.</li> <li>4. Model adding data, calculations and creating formulas.</li> <li>5. Set children the task of collecting data and finding out what is the average height of the class. Save work.</li> <li>6. Ask the children to present their work to the class.</li> <li>7. Ask the children to self assess.</li> </ol>	(IT) I can use a spreadsheet/database to collect and record data. (IT) I can use unfamiliar technology to create content and share my ideas. E.g. Augmented Reality, VR, 3D, digital music etc.
4	How can spreadsheets help us compute data?	<ol style="list-style-type: none"> <li>1. Explain to the children in this lesson they will be using a Spreadsheet to compute data. Review template Spreadsheet files for this lesson.</li> <li>2. Work through the slides in the Teacher's Handbook and model how to create a binary conversion tool using formula. Ask the children if they can improve the tool and it's design. Save work.</li> <li>3. Ask the children to present their work to the class.</li> <li>4. Ask the children to self assess.</li> </ol>	(IT) I can use a spreadsheet/database to collect and record data. (IT) I can translate binary numbers to decimal. (IT) I can improve the quality and presentation of my work using editing and formatting techniques.

Lesson	Driving Question	Activity	Assessment
5	Can you be the teacher?	<ol style="list-style-type: none"> <li>1. Introduce the children to the video and QR code poster task.</li> <li>2. Using the slides in the Teacher's Handbook to model creating a poster, QR code and tutorial video.</li> <li>3. The video tutorials will need planning before filming. The children will also need space to film.</li> <li>4. Save work</li> </ol>	<p>(IT) I can make a QR codes that links to a piece of my own work.</p> <p>(IT) I can use unfamiliar technology to create content and share my ideas. E.g. Augmented Reality, VR, 3D, digital music etc.</p> <p>(IT) I can improve the quality and presentation of my work using editing and formatting techniques.</p>
6	Can you be the teacher?	<ol style="list-style-type: none"> <li>1. Continue work from previous lesson.</li> <li>2. Ask the children to present their work to the class.</li> <li>3. Ask the children to self assess.</li> </ol>	<p>(IT) I can film and produce a short video with elements such as text, images, narration and music.</p>