


## Year 8 Computing: Home Learning Week 11

Greetings Year 8!

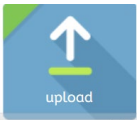
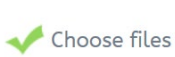
This week's activity focus is: binary code!

Take care, stay alert, stay safe!

Mrs P, in ICT ☺

Task	Description
1	<ul style="list-style-type: none"><li>On your computer, open your internet browser (that's the one you use to search for things on the internet – maybe internet explorer, or google chrome). use this link to read information about binary numbers and code.  <a href="https://clickv.ie/w/wS5n">https://clickv.ie/w/wS5n</a></li></ul> <p>Watch the video and answer the questions on binary code.</p>
2	<ul style="list-style-type: none"><li>Open a new word document. Save it onto your computer – go to <b>file</b> and <b>save as</b>, and save your work as “binary numbers *initials*”.</li></ul>
3	<p>Remember that in the binary system, the numbers multiply by two, starting at the right hand side and moving to the left.</p> <p>So, starting with 1 on the right, the number patterns, go</p> <div style="text-align: center;"><p>16            8            4            2            1            Start here</p></div> <p>Double/times by 2 as you go to the left!</p>

4.	<p>Ok, lets see if we can work out some numbers in binary!</p> <p>Let's do an easy one!</p> <p>Assume that to get a number in our decimal language – like 7, we would have to put a 1 under the binary numbers that add up to that total.</p> <p>So, to get 7, we would need a 4, a 2 and a 1 -which all add up to 7. So under those four number we would add a 1. (A 1 under the number means we used that number, and a 0 means we don't need it!)</p> <table><tr><td><b>16</b></td><td><b>8</b></td><td><b>4</b></td><td><b>2</b></td><td><b>1</b></td></tr><tr><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></tr></table> <p>So in binary code, the number 7 would be 00111.</p> <p>Ok, here is another easy peasy one – write the binary code for 2! Do this on your Word document that you have just opened and saved! Call it question a!</p>	<b>16</b>	<b>8</b>	<b>4</b>	<b>2</b>	<b>1</b>	0	0	1	1	1
<b>16</b>	<b>8</b>	<b>4</b>	<b>2</b>	<b>1</b>							
0	0	1	1	1							
5	<p>Ok, now see if you can write the binary code for these numbers.</p> <p>b. 10</p> <p>c. 14</p> <p>d. 17</p> <p>e. 27</p> <p>f. 31</p> <p>When you've finished these numbers, go to file and save!</p>										
6.	<p>Now let's flip it and see if you can work out these decimal numbers from the binary numbers.</p> <p>Here goes.....</p> <p>1. 00100</p> <p>2. 01100</p> <p>3. 10100</p> <p>4. 11110</p> <p>5. 10101</p>										
7	<ul style="list-style-type: none"><li>• When you have finished, save your work by clicking on file and save.</li></ul>										

8	<ul style="list-style-type: none"> <li>• When you have saved it, try uploading it to school 360, so that I can see it.</li> <li>• To do this, first sign into school360 – there’s an instruction sheet on the home learning page if you don’t know how to do this</li> <li>• Now click on <b>resources</b>. This is on the main school360 screen.</li> <li>• Then click on <b>J2E</b></li> </ul>  <ul style="list-style-type: none"> <li>• Now click on <b>upload</b> – it looks like this</li> </ul>
9	 <ul style="list-style-type: none"> <li>• Now click on <b>choose files</b> - This is in the middle of your screen.</li> <li>• When you do this, a menu will come up, like it does when we save the work at school.</li> <li>• Choose the file you wish to upload – it should be the file you saved before called “binary numbers *intials*”. Then I should be able to have a look at your work.</li> </ul>