


Year 7 Computing: Home Learning Week 11

Greetings Year 7!

This week's activity focus is: binary code!

Take care, stay alert, stay safe!

Mrs P, in ICT ☺

| Task | Description |
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| 1 | <ul style="list-style-type: none">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. https://clickv.ie/w/wS5n <p>Watch the video and answer the questions on binary code.</p> |
| 2 | <ul style="list-style-type: none">Open a new word document. Save it onto your computer – go to file and save as, and save your work as “binary numbers *initials*”. |
| 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> |

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| 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>16</td><td>8</td><td>4</td><td>2</td><td>1</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> | 16 | 8 | 4 | 2 | 1 | 0 | 0 | 1 | 1 | 1 |
| 16 | 8 | 4 | 2 | 1 | | | | | | | |
| 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">When you have finished, save your work by clicking on file and save. | | | | | | | | | | |

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| 8 | <ul style="list-style-type: none"> • When you have saved it, try uploading it to school 360, so that I can see it. • 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 • Now click on resources. This is on the main school360 screen. • Then click on J2E <div data-bbox="821 331 956 450" data-label="Image"> </div> <ul style="list-style-type: none"> • Now click on upload – it looks like this |
| 9 | <div data-bbox="694 571 866 622" data-label="Image"> </div> <ul style="list-style-type: none"> • Now click on choose files - This is in the middle of your screen. • When you do this, a menu will come up, like it does when we save the work at school. • 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. |