

## Notes - Analog vs. Digital

| Analog Vs. Digital          | ★Analog and digital are two different ways of _____ & _____ information.   |             |              |  |  |
|-----------------------------|--|-------------|--------------|--|--|
| Waves                       | <p>★Analog Waves include the _____ wave</p> <p>★Digital Waves are samples or _____ of a wave</p> <table> <tr> <th>Analog Wave</th><th>Digital Wave</th></tr> <tr> <td></td><td></td></tr> </table> | Analog Wave | Digital Wave |  |  |
| Analog Wave                 | Digital Wave   |             |              |  |  |
|                             |  |             |              |  |  |
| What is analog?             | <ul style="list-style-type: none"> <li>• _____</li> <li>• _____ range of values</li> <li>• More _____ values</li> </ul>  |             |              |  |  |
| We live in an analog world! | There are an _____ amount of colors to paint an object, there are an infinite number of tones we can hear, and there are an infinite number of smells we can smell.                                |             |              |  |  |
| Analog Examples             | <p>★Cassette tape</p> <p>★Records</p> <p>★VHS _____</p> <p>★_____ with hands</p> <p>★Microphone</p> <p>★_____ Talkie</p> <p>★_____ phone</p> <p>★photocopy</p>                                     |             |              |  |  |
| Analog Advantages           | <ul style="list-style-type: none"> <li>• _____ data</li> <li>• Higher density</li> <li>• _____ processing</li> <li>• _____ sound</li> </ul>  |             |              |  |  |

|                       |   |
|-----------------------|---|
| Analog Disadvantages  | <ul style="list-style-type: none"> <li>• White _____</li> <li>• _____ storage</li> <li>• Difficult to _____</li> <li>• Difficult to _____</li> </ul>                    |
| What is Digital?      | <ul style="list-style-type: none"> <li>• _____</li> <li>• _____ range of values</li> <li>• _____ to work with</li> </ul>  |
| Binary Code           | ★Digital media, like CDs, hard disks, and flash memory chips store parts of sound or light waves as ____'s and ____'s, or bits.   |
| Digital Examples      | ★USB Drive<br>★_____<br>★Cell Phone<br>★Digital _____<br>★Digital Clock<br>★_____ Player  |
| Digital Advantages    | <ul style="list-style-type: none"> <li>• Travel _____</li> <li>• _____ copies</li> <li>• Fit more _____ on smaller devices</li> <li>• _____</li> <li>• _____</li> </ul> |
| Digital Disadvantages | <ul style="list-style-type: none"> <li>• Need more _____</li> <li>• More complicated</li> <li>• Not a _____ representation</li> </ul>                                   |