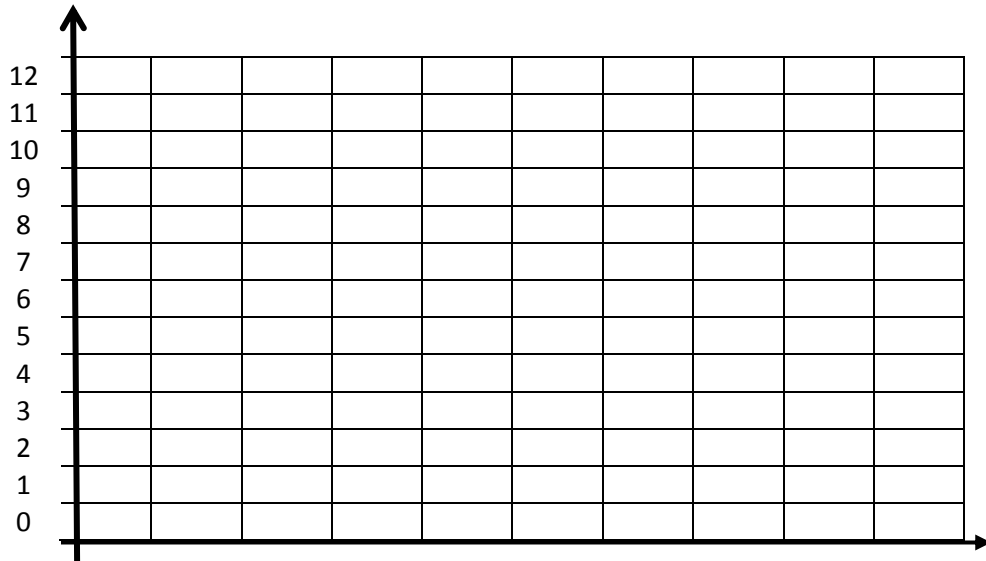




Binary Representation of Sound Sampling

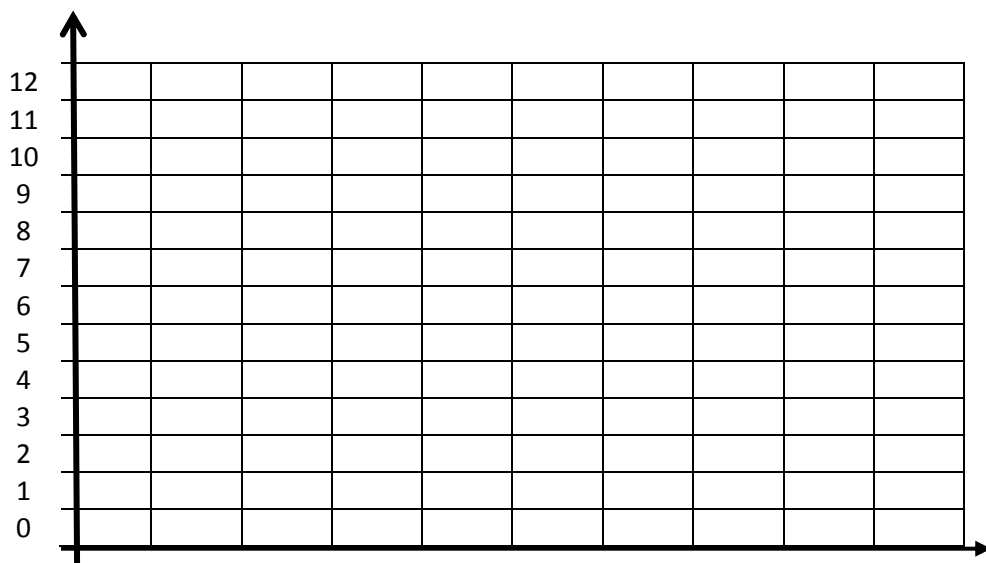
Task 1

Draw out a sound wave on the grid below- remember it is analogue and continually varying



Task 2

Take ten samples from your wave at regular intervals.





Task 3

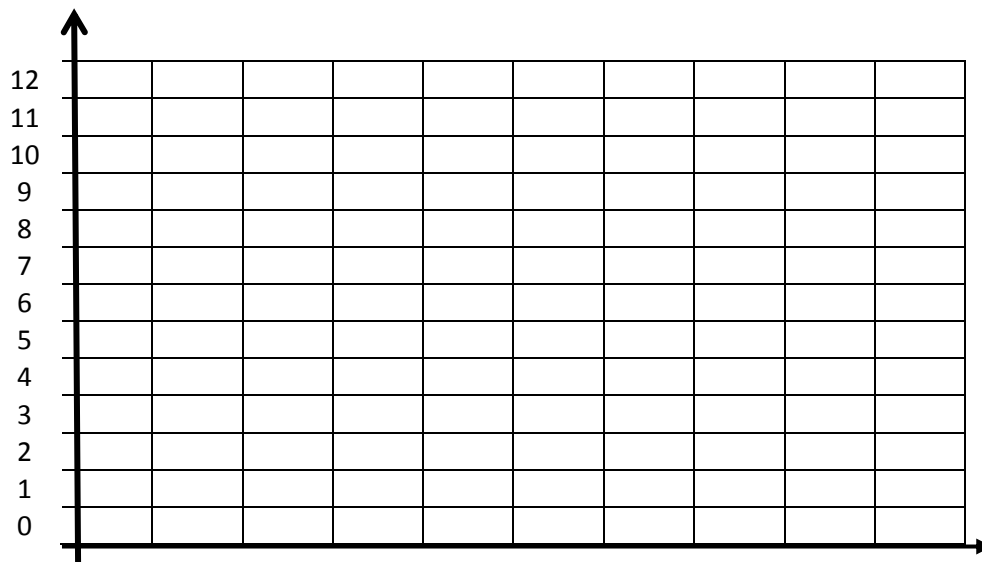
Read off the values you have taken and record the values in denary and then convert them to binary. Notice we are using 4 bit resolution. (Bit depth)

| | | | | | | | | | | | | | | | | |
|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Denary | | | | | | | | | | | | | | | | |
| Binary | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Denary | | | | | | | | | | | | | | | | |
| Binary | | | | | | | | | | | | | | | | |

Task 4

Now using your binary values, reconstruct the sound wave.



Compare it to the original – is it an accurate representation?

You have used a bit depth of 4 bits. What could you do to improve the sound quality?