

## Challenge On Boarding – 8 x 8 pixelated images

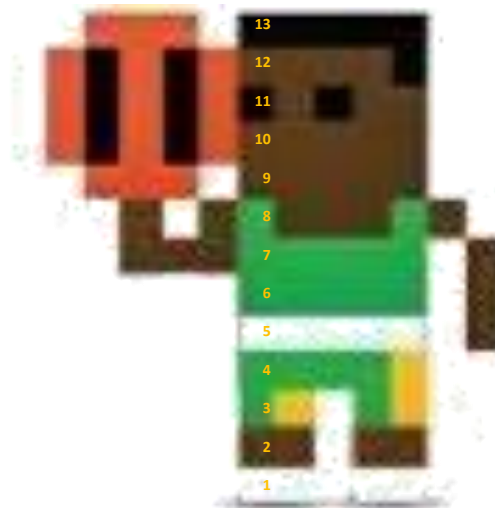
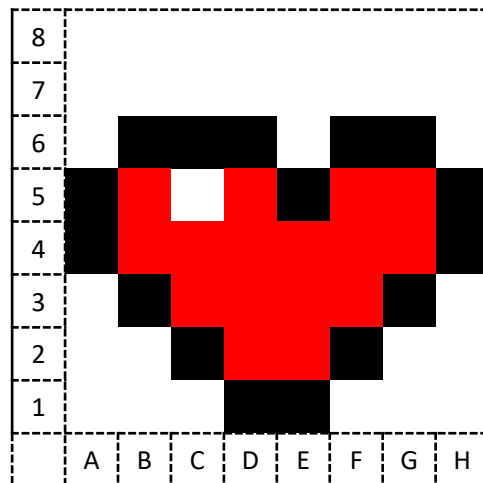
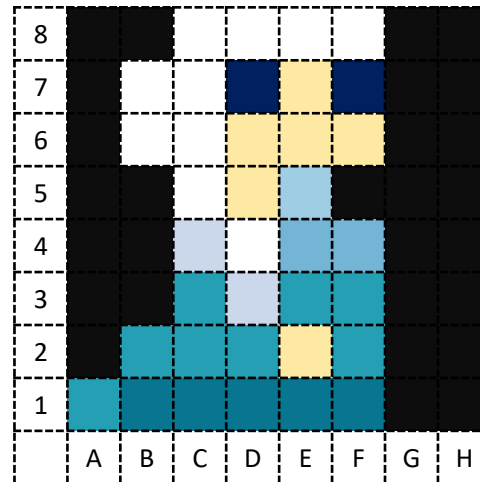


Image from the  
[Coloring Pixels 8x8](#)  
app

### Getting key features into an image

- Some images are ok pixelated if they originate as computer images (the creeper from Minecraft is an example. A space invader alien might be another)
- Most pixelated images are approximations and you would have to think how to get enough detail to make them recognisable
- How many of these images can you make out? How did you recognise it?

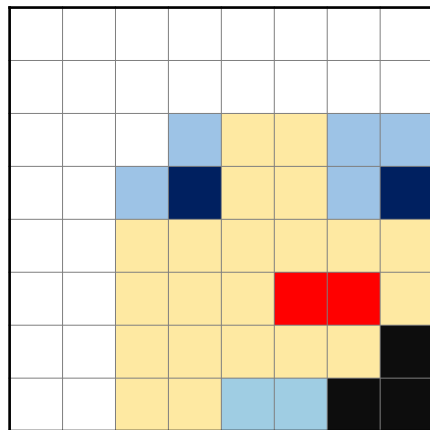
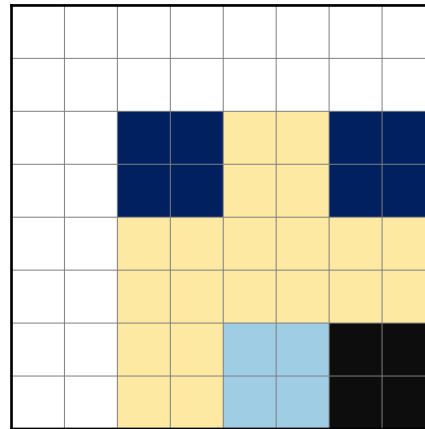
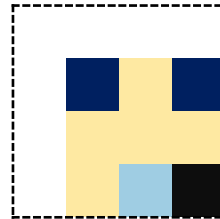
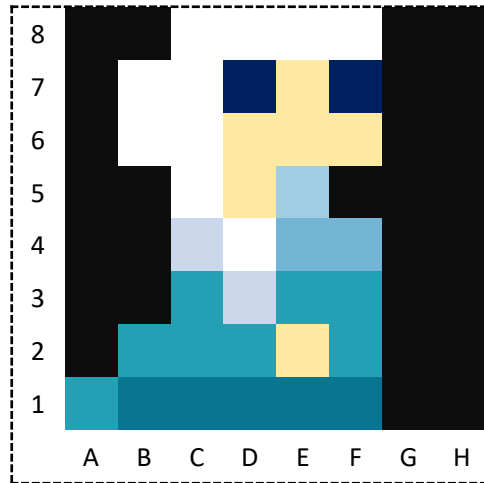
# Challenge On Boarding – Using Coordinates



## Thinking of the image in terms of rows and columns

- It can be tricky to get each pixel in the right place. Having a specified location for each pixel can help when getting started
- You can use a range of pixels e.g. B5 – C6 (the creeper's eye), like spreadsheets do
- Alternatively, you could just highlight the rows (like with the basketball player) and then go row by row figuring out pixels. (this is more or less how a fax machine worked)

## Challenge On Boarding – Enlarging the Image

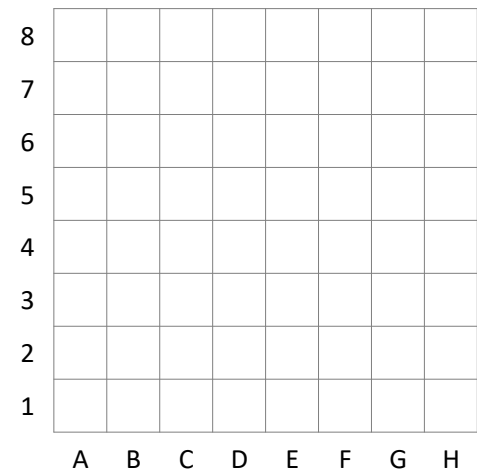
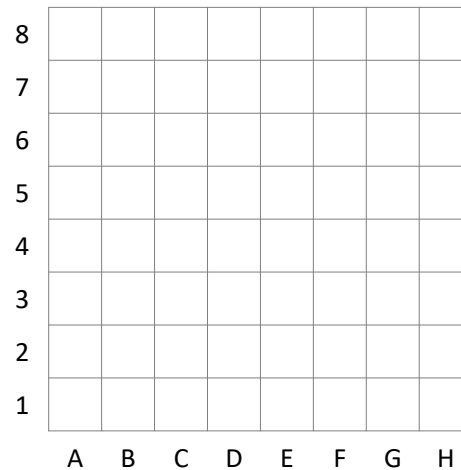
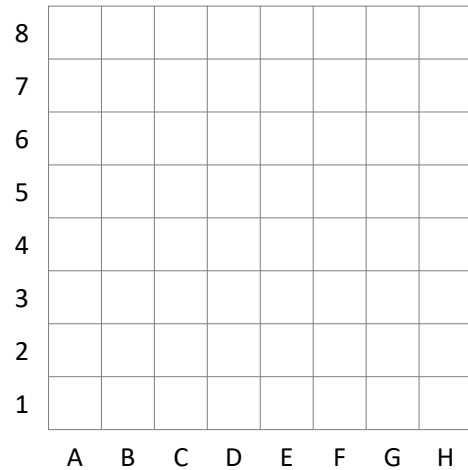
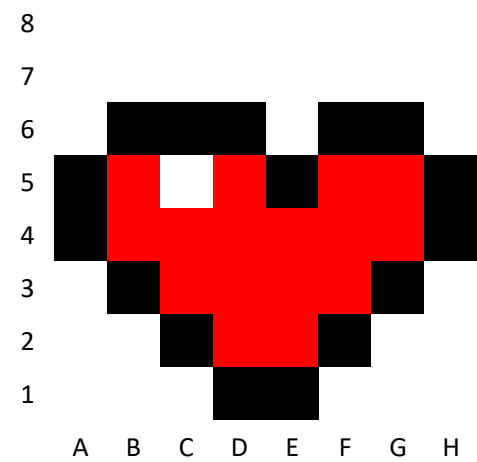
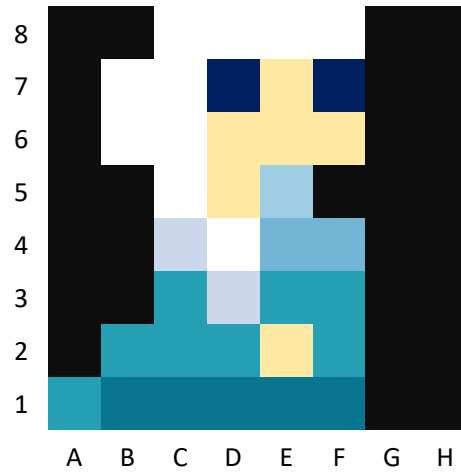
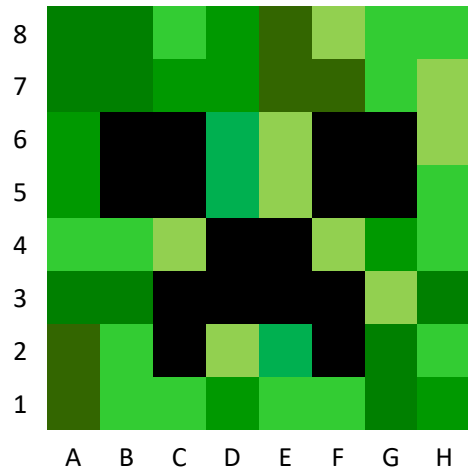


### 4 times the pixels

- If we make the grid twice as high and twice as wide, every pixel can be turned into 4 pixels. This is enlarged by scale factor 2 (even though the area is 4 times the size)
- The more pixels you have the more detail you can add. In this case, I've added more colours to the eyes and added a mouth that wasn't possible on the smaller image.
- Digital camera images contain anywhere up to 64 million pixels! How many pixels on these 8x8 images?







# Challenge 1 – Copy or create an 8x8 pixelated image

Use the images and grids below to help you make an 8x8 pixelated image

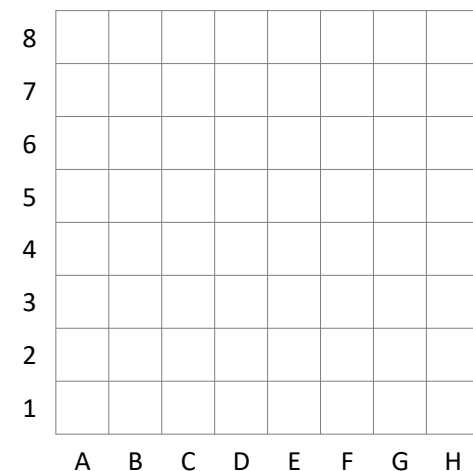
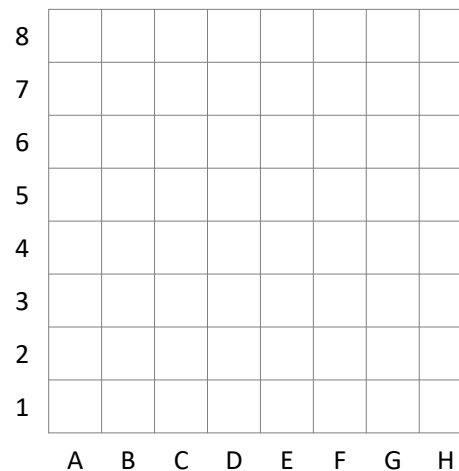
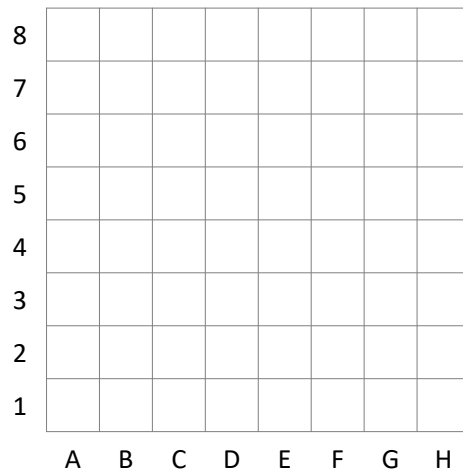


## Challenge 2 – Use coordinates to create an image

The coordinates below will produce an 8x8 pixelated image. Can you recognise what or who it is? Colour in the coordinates using the colours shown with each set to find out.

A2 – A6, A8, B5 – B7, D1, E1, G5-G8, H2-H8 	A7, C5 – F5, E4, , C7 – F7 	B8 – F8 C2 – F3  C4,D4, F4
A1 – C1, F1 – H1 D6, F6 	B3 – B4, G3 – G4 	B2, G2, C5, C6, E6 

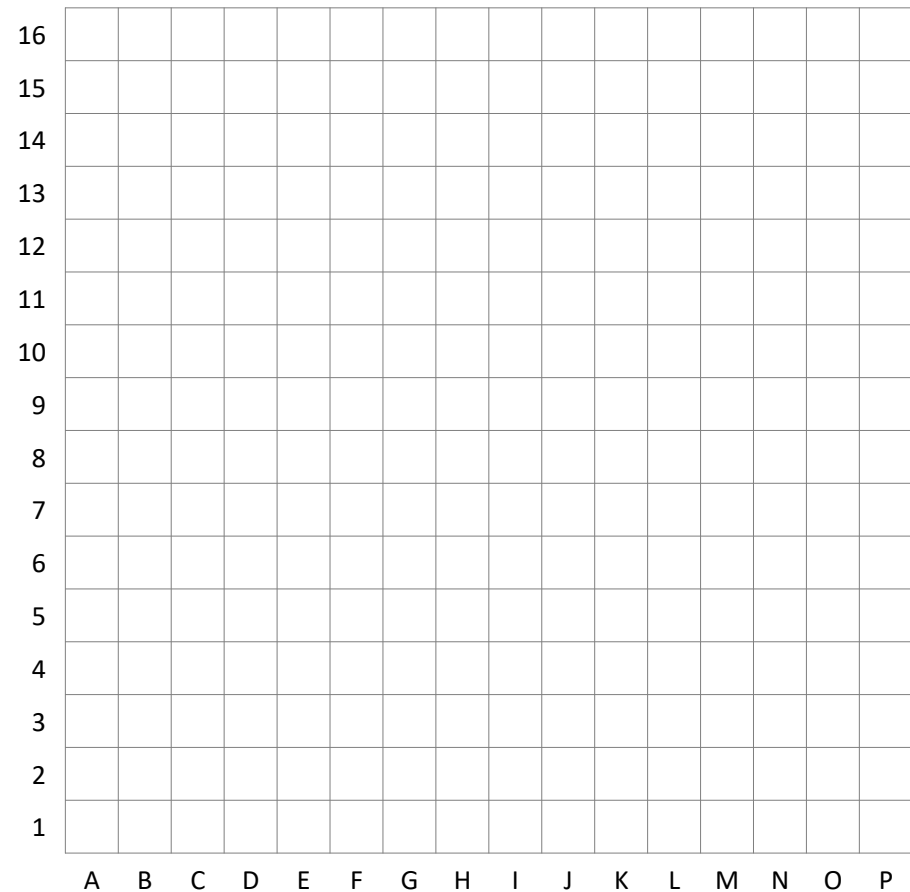
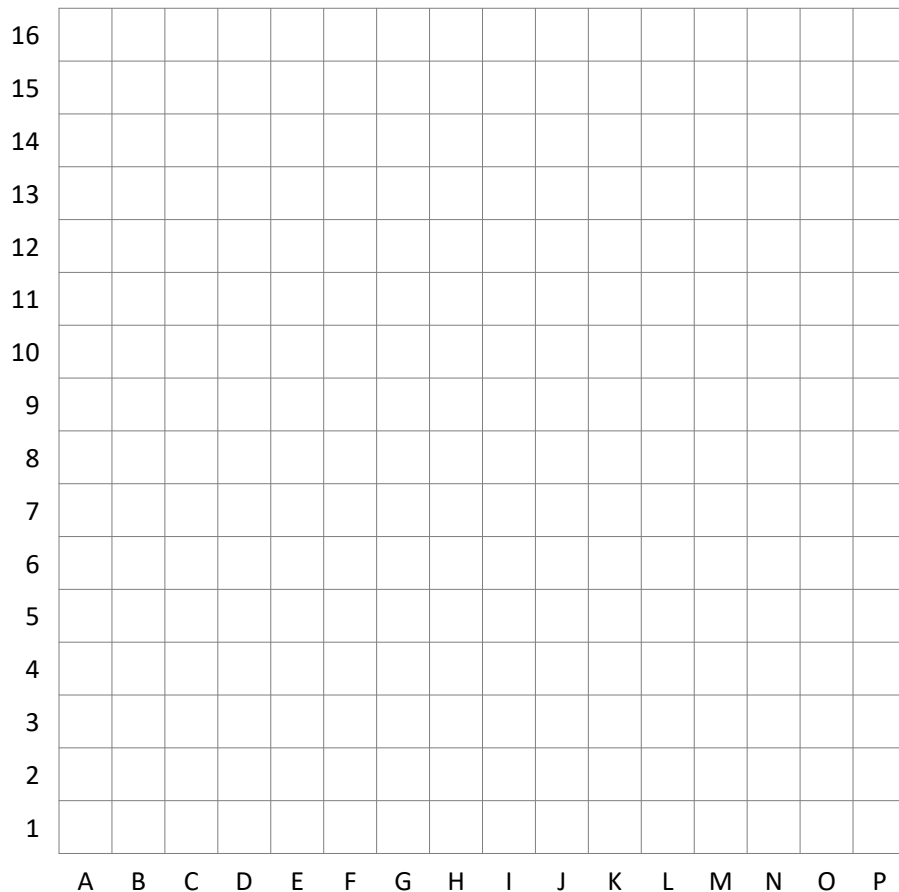
These are either single coordinates (e.g. A8, D1) or a range of connected coordinates (e.g. A2 – A6, B5 – B7) if separated by a dash ( – )

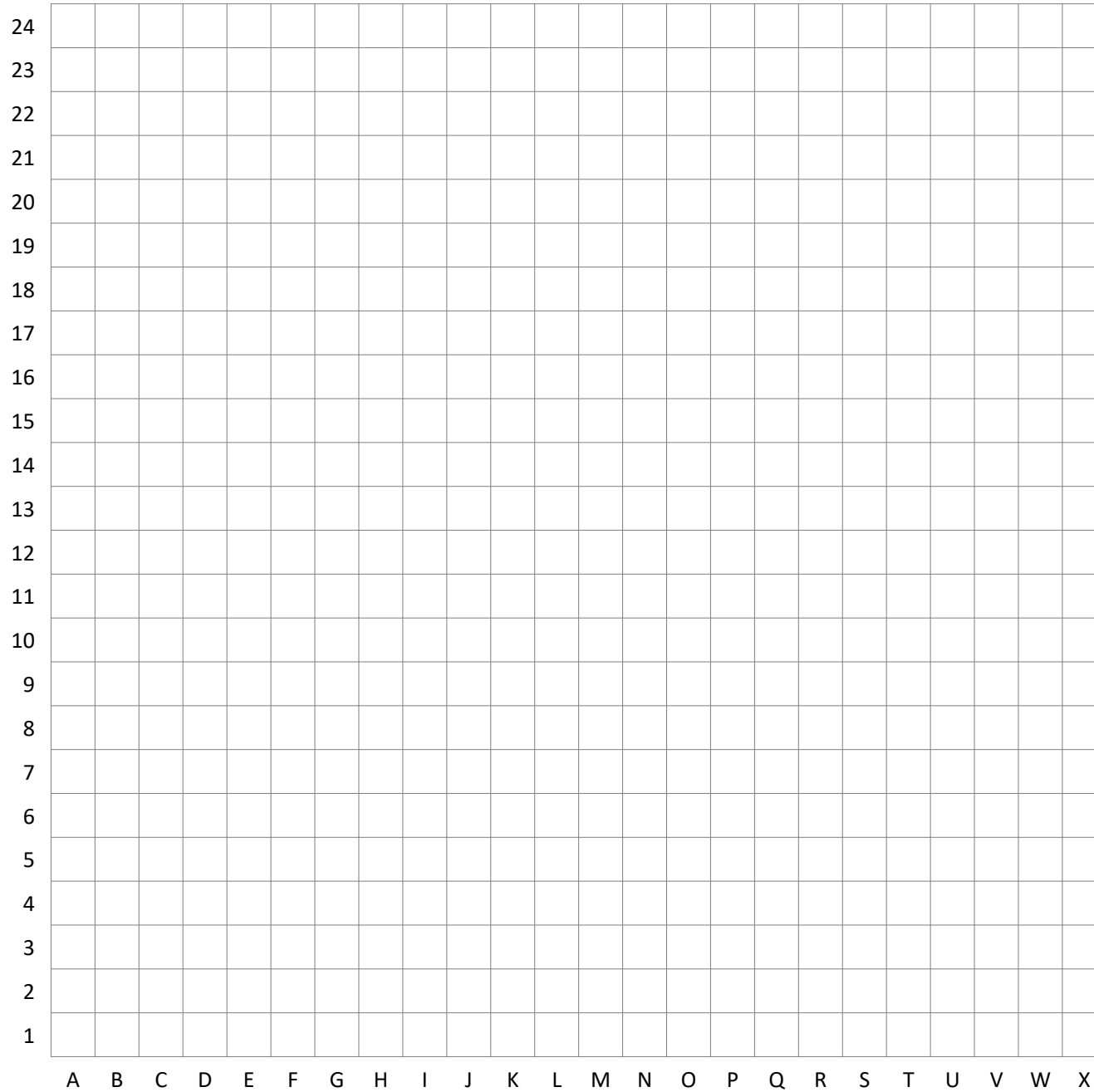


## Challenge 3 – Enlarge your image and add more detail

Choose one of the images that you've already done and enlarge it to a 16x16 grid.

Try changing some pixel colours to add more detail to the image.





What about  
a bigger  
grid?



What do you notice...



...what do you wonder

