‘A Personal Touch’ accompanying text:

Does genetics code our identity?

Genetics is becoming the forefront of modern medical applications. It has been of high popularity since its structural discovery by Watson, Crick and Franklin in 1953. Since then, it has become the representation of the future of human technology. The power of DNA has been depicted in films for years. Most portray it as the basis for human society in the far future, such as GATTACA by Andrew Niccol (1997). I took inspiration from the dominant character in this film, Vincent Freeman, and his pursuit to push past his “in-valid” genetic limits, assessed by society, to follow his dreams to go into outer-space. For me, this film opened the question of how much our genetics determines our individual limits; putting a scientific fate within our biological make up. This area has gained a reputation of signifying everything we are and what we will be. However, the truth of this idea is much limited like it is conceptualised, in which our DNA code is not set in stone. Environmental factors heavily influence our gene expression and change the very nucleotide arrangement, which is also known as ‘mutations’. Even this piece of information has been extended within fiction to depict types of mutations that turn people into ‘monsters’ or ‘superheroes’. Other areas that films have expressed the field of genetics is Clones and Cloning. It is usually shown that a clone, a genetically identical individual to that of the ‘original’, is the exact same as the original person in every aspect but with a coldness. This cold character is perceived as villainous and manipulative, as they are seen to be without a soul from their lack of variety within their nature. The common notion within these themes is that changing the gene changes the person.

Upon thinking about mutations and identity, I was next lead to its relation to identity within disability and race. While our society has become more integrated than ever before in society, there is still an identity we label one another with. Through phenotypical attributes, segregation and categorisation become easier. Ethnic and national identities are socially constructed to represent a biological unity through common characteristics. However, it is rare that those with the same appearances have a similar biological pattern. Instead we find that certain biological features, such as skin colour and facial forms, are unrelated to the social categorisations of ethnicity and ‘race’. Therefore, genetic identity is quite unique to the individual but it blurs the lines between nationalities and ethnicities.

For my final piece, I decided to create a painting to express science through creativity. The two subjects are mostly classified as polar opposites, but I believe that a creative aspect can communicate science more openly than how some choose to see it. I gained inspiration from the Wellcome Collection, who have used their exhibition to engage the public with science, such as *Medicine Now,* an exhibition reflecting the interest of scientists, doctors and patients. The picture contains finger prints of different individuals. I wanted to show DNA depicted by different individuals to provide a compare and contrast view of the DNA double helix. The audience will see the difference in how the volunteers and I chose to portray DNA, from the changes in size and shape, demonstrating our individuality along with conveying similarities which depict our uniformity within the form and colour coordination. The separation of the different pictures represents each individual. I chose to use finger-painting because it was a way to tie the representation of DNA access, as from crime databases use fingerprints to access one’s profile, and the individual human aspect, in which each of the subjects all have different pictures as our fingerprints are all different patterns and shapes. I felt that using finger-painting was also adding their own signature to the painting, not just by the style but by physically having a different tool to the other painters due to our different prints, also creating the effect of inputting the DNA on their painting. Using primary colours, as well as green, to represent the four nucleotide bases: adenosine, cytosine, thymine and

guanine, reflects how these molecules act as the most basic building blocks for all the complexities of life. I decided to paint a background for the DNA strands of each picture but in a way that linked the paintings together, to identity its similarity and connection with each other, using the colours of the bases with certain colours flowing to the other paintings. Through this work it was interesting to see how other people drew their DNA and how different they all looked, indicating the signature that an individual has. While this does not represent their identity, I feel that creativity does play a major role in how people express themselves and how this is visualised in their work.