

Combined Science - Biology - Key Stage 4

# Genes, DNA and Chromosomes

Mrs Gibbs



**OAK**  
NATIONAL  
ACADEMY

# Independent task

1) What is a polymer?

1) How many strands does DNA have?

1) What is the name of the shape that DNA forms?



# Describe how DNA codes for the production of the enzyme lipase (2)

- The bases will code for...
- Which will code for...



# The genome

- The genome is...
- Understanding the genome has helped to:
  - 1) Identify genes linked with...
  - 1) Understand and treatment...
  - 1) Understand human...



# Practice exam question 1

**DNA is found in the nucleus of eukaryotic cells.**

**Describe the structure of DNA. (2)**



## Practice exam question 2

In 2003, the sequencing of the human genome was completed.

- a) Describe what 'the human genome' is (1)
  
- a) Suggest how an understanding of the human genome could help someone with Type 1 diabetes (2)



# Practice exam question 3

**a) Describe what is meant by a 'gene' (1)**

**a) Insulin is a hormone which controls blood sugar levels. Describe how a gene codes for the production of insulin (2)**

