 Year 12 General Biology

Task 4 DNA Extraction Validation

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Discuss your findings during the DNA extraction practical using scientific language (2 marks).

Discusses findings in detail using scientific language (2).

Discusses findings with no use of scientific language (1).

1. Relate your findings discussed above in Question 1 linking to scientific ideas and your knowledge on DNA structure and function (2 marks).

Relate findings to concepts covered in class on DNA structure and function (2).

Relate findings to concepts briefly (1).

1. Explain your observations found based on the microscope slide, ensuring to outline structures found and your observations for it (2 marks).

Discuss observations on microscope slide with reference to DNA structure (2).

Discuss observations on microscope slide no reference to DNA structure (1).

1. Compare how DNA differs in humans to plants such as strawberries shown in this practical (2 marks).

Discuss human DNA (0.5) and strawberry DNA (0.5).

Relate similarities (0.5) and differences (0.5).

1. Identify the role of the DNA extraction buffer in this practical (1 mark).

Identifies role of removing proteins off DNA molecule (1).

1. Draw and label the structure of a DNA double helix ladder model (7 marks).

Scientific drawing accurately drawn (2).

Use of pencil (1).

Label phosphate (1)

Bases (1)

Hydrogen bond (1)

Deoxyribose sugar (1)

Eg. Ladder model

Diagram

Description automatically generated