

Required Practical Food Tests

GCSE Biology · Written to the shared content for AQA, Edexcel and OCR

Name _____ Class _____ Date _____

1. Worked example

Describe how to test a food sample for starch. Give the positive result. (3 marks)

Step 1 · Prepare

Grind the food with distilled water using a pestle and mortar; filter or let it settle.

Step 2 · Test

Put a little of the sample on a spotting tile and add a few drops of iodine solution.

Step 3 · Result

Orange-brown turns blue-black if starch is present.

Answer: Add iodine; orange-brown → blue-black means starch

Check: Name the reagent, the method and both colours.

2. Now try one with the steps

Describe the Benedict's test for reducing sugars. (4 marks)

Step 1 · Volumes

Step 2 · Heat

Step 3 · Negative

Step 4 · Positive

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. Name the reagent used to test for protein. [1]

2. State the colour of a positive iodine test for starch. [1]

3. Which food test needs heating? [1]
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4. Describe a positive result for Sudan III stain. [1]
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5. Egg white turns Biuret reagent purple. What does this show? [1]
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6. Describe how to prepare a solid food sample for testing. [2]
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7. Explain why a water bath is used rather than heating with a Bunsen burner directly. [2]
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8. A sample of sucrose gives a negative Benedict's result. Explain why. [1]
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9. Give one hazard of Biuret reagent and one precaution. [2]
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10. How many cm³ of 2% glucose are needed to make 20 cm³ of 0.5% glucose? [2]
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11. A food turns Benedict's solution green, another brick-red. Compare the sugar content. [1]
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12. Suggest a control for the Benedict's test and explain its purpose. [2]
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13. Explain why food tests on the same sample by two students could give different colours. [2]
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14. Explain why Sudan III should not be used near a naked flame.

[1]

4. Before you hand it in

"Iodine turns purple for starch."

Iodine: orange-brown → blue-black (starch). Biuret: blue → purple (protein).

Forgetting to heat the Benedict's test

Heat in a water bath (about 75 °C) for about 5 minutes.

"All sugars give a positive Benedict's test."

Benedict's detects REDUCING sugars such, fructose, maltose and lactose.