

0 2 . 1

Describe the difference between the structure of a triglyceride molecule and the structure of a phospholipid molecule.

**[1 mark]**

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0 2 . 2

Describe how you would test for the presence of a lipid in a sample of food.

**[2 marks]**

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0 2 . 3

Animal fats contain triglycerides with a high proportion of saturated fatty acids. If people have too much fat in their diet, absorption of the products of fat digestion can increase the risk of obesity. To help people lose weight, fat substitutes can be used to replace triglycerides in food.

Describe how a saturated fatty acid is different from an unsaturated fatty acid.

**[1 mark]**

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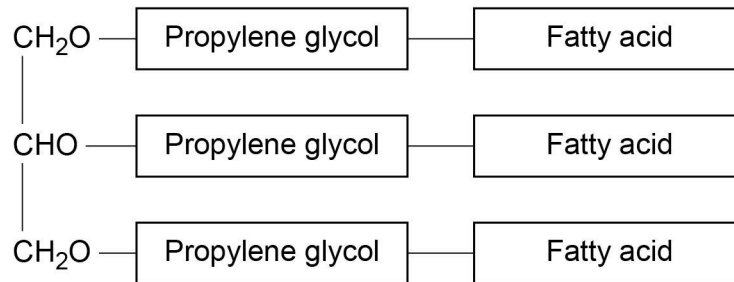
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Figure 1 shows the structure of a fat substitute.

Figure 1



0 2 . 4

This fat substitute **cannot** be digested in the gut by lipase.

Suggest why.

[2 marks]

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0 2 . 5

This fat substitute is a lipid. Despite being a lipid, it cannot cross the cell-surface membranes of cells lining the gut.

Suggest why it **cannot** cross cell-surface membranes.

[1 mark]

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