

## GCSE Food Preparation and Nutrition Core Questions

### Set 3a: Science of food – the function of ingredients

Ingredient	Function
Meat and Poultry	<ul style="list-style-type: none"> <li>• Protein for growth and repair</li> <li>• Contains saturated fat</li> <li>• Fat provides flavour in the meat</li> <li>• High in iron</li> <li>• B vitamins</li> </ul>
Fish and Seafood	<ul style="list-style-type: none"> <li>• Protein for growth and repair</li> <li>• Essential fatty acids</li> <li>• Low in calories</li> <li>• Minerals – iron, zinc, iodine and selenium</li> <li>• High in vitamins A and D</li> </ul>
Eggs	<ul style="list-style-type: none"> <li>• Adds colour</li> <li>• Adds flavour</li> <li>• Holds air when whisked</li> <li>• Binds ingredients together</li> <li>• Coagulates / sets mixtures</li> <li>• Enriching, thickening</li> <li>• Glazing</li> <li>• Coating / enrobing</li> <li>• Adds to the nutritional value</li> </ul>
Flour	<ul style="list-style-type: none"> <li>• Forms the main structure of a product due to its gluten content.</li> <li>• Adds bulk</li> <li>• Self raising flour contains a raising agent</li> <li>• If wholemeal – provides fibre</li> <li>• Gelatinises in liquids (thickens sauces)</li> </ul>
<b>Fats:-</b> Butter Margarine Lard Oil Veg white fat	<ul style="list-style-type: none"> <li>• Adds colour and flavour if butter or margarine is used</li> <li>• Holds air bubbles during mixing to create texture and volume</li> <li>• Helps to extend shelf life.</li> <li>• To shorten a flour mixture to make it crisp or crumbly in texture</li> <li>• Frying / sautéing</li> <li>• To form emulsions (salad dressing)</li> <li>• Binds ingredients</li> </ul>
Sugar	<ul style="list-style-type: none"> <li>• Sweetens</li> <li>• Increases bulk</li> <li>• Develops flavour</li> <li>• Holds air</li> <li>• Acts as a preservative (jam)</li> <li>• Aids fermentation (bread)</li> </ul>
Salt	<ul style="list-style-type: none"> <li>• Helps develop flavour</li> <li>• Strengthen gluten in flour</li> <li>• Controls the action of yeast</li> <li>• Used as a preservative (dried/salted meat / fish)</li> </ul>

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Fruit and vegetables	<ul style="list-style-type: none"> <li>• Adds fibre</li> <li>• Adds colour and flavour</li> <li>• Adds texture</li> <li>• Thickens when puréed</li> <li>• Adds nutritional value (mention which vitamins)</li> <li>• To garnish</li> </ul>
Herbs and spices	<ul style="list-style-type: none"> <li>• To improve and add flavour</li> <li>• To garnish</li> </ul>
Gelatine	<ul style="list-style-type: none"> <li>• To set liquids (jelly)</li> </ul>
Chocolate, icings	<ul style="list-style-type: none"> <li>• To coat or decorate</li> </ul>
<b>Dairy:-</b> Milk Cream Cheese Yoghurt Fromage Frais etc	<ul style="list-style-type: none"> <li>• High in fat (unless using the low fat version)</li> <li>• High in protein</li> <li>• Vitamins A and D</li> <li>• Calcium</li> <li>• Adds texture</li> <li>• Adds volume</li> <li>• Adds flavour</li> </ul>
<b>Starchy foods (all cereals):-</b> Rice Pasta Noodles Couscous Maize (corn) Oats Breakfast cereals	<ul style="list-style-type: none"> <li>• Provides slow released energy</li> <li>• Wholegrain versions are high in fibre</li> <li>• High in B vitamins</li> <li>• Provides the main source of starch in a meal.</li> </ul>
<b>Pulses:-</b> Lentils Peas Beans Chick peas	<ul style="list-style-type: none"> <li>• Adds protein</li> <li>• Adds fibre</li> <li>• Adds texture</li> <li>• Absorbs flavour</li> </ul>
Baking powder	<ul style="list-style-type: none"> <li>• To act as a raising agent</li> </ul>
Yeast	<ul style="list-style-type: none"> <li>• Acts as a raising agent</li> <li>• Sometimes adds flavour</li> </ul>