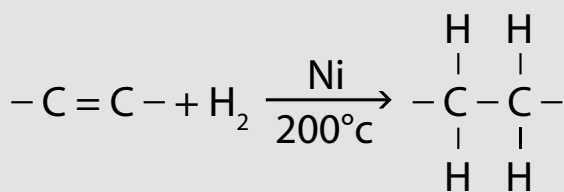


formed answers



(c) Hydrogenation

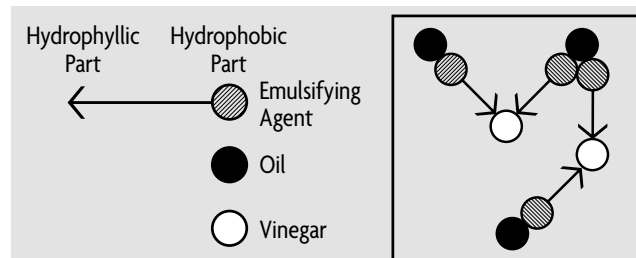
- ◆ This is a property in the manufacture of margarine.
- ◆ Hydrogen gas is pumped into liquid vegetable oils (mainly unsaturated). A nickel catalyst is present and the mixture is heated to 200 degrees.
- ◆ Double bonds are broken as hydrogen attaches to the free carbon spaces around the double bonds.
- ◆ Cis fatty acids can change to trans fatty acids.



- ◆ The result is the mixture becomes more solid ie margarine.

Emulsions

- ◆ Lecithin (emulsifying agent) in egg yolk is added to olive oil and vinegar in the production of mayonnaise.
- ◆ Lecithin has a hydrophobic (water hating) part and a hydrophilic (water loving) part. The hydrophobic part attaches to the oil and the hydrophilic part attaches to the vinegar, keeping the fat globules away from each other so they cannot coalesce. The end



result is that the oil and vinegar are in a permanent emulsion.

Plasticity

- ◆ Spreads from fridge
- ◆ Oil is whipped into butter
- ◆ Dairygold (semi-solid)
- ◆ Mixture of SFA and UFA
- ◆ 50 per cent butter and 50 per cent soya oil

- (d) ◆ Include oily fish (salmon, trout) twice a week as they contain Omega 3 fatty acids which can reduce blood pressure and lower the risk of heart disease.
- ◆ Include folic acid (brown bread, leafy greens, oranges) to lower homocysteine levels in blood.
- ◆ Include plenty of fruit and vegetables as an excellent source of

antioxidants (prevent oxidation of polyunsaturates).

- ◆ Poach, grill, bake and steam food as no fat is added during cooking.
- ◆ Reduce the intake of saturates (butter, cream, full fat cheese) as they can raise LDL levels of cholesterol.

(e) Functional food: Benecol yoghurt

- ◆ This food contains plant stanol esters.
- ◆ They block the absorption of cholesterol in the intestine and pass out of the body.

(f) (i) Personal

Culture: Italians tend to choose pasta as a main food source. Chinese choose rice or noodles, Spanish and Portuguese eat a lot of fish. Nationality will influence the choice of foods.

Health status: If a person is a coeliac they will have to avoid foods containing gluten (bread, biscuits, cakes). If someone is anaemic they must choose foods rich in iron (red meat, cereals, greens) and foods rich in vitamin C (citrus fruits)

(ii) Educational

Marketing/advertising: Food labels contain information about the nutritional content of food. They may emphasise that a product is low in salt or high in fibre. This will influence some people to purchase the product.

Nutritional awareness: In general, people are more aware of the importance and benefits of healthy eating on our bodies. TV programmes, health magazines, and home economics classes inform people of healthy eating and the right food choices that should be made.

(iii) **Economic:** If a person has a limited income to spend on food they may have to choose cheap cuts of meat, fruit and vegetables in season and "own brand" goods. Those not restricted by a budget can buy exotic fruits, expensive meat and cheeses.

Pie charts or tables usually appear on this type of question. It is important to refer to some of this data when answering the question.

No long paragraphs. All answers are in point format. The points may be brief or detailed. This will depend on the language used in the question. Key terms such as "describe", "evaluate", "explain", "give an account" indicate more detail should be given in comparison to words such as "like", "list", "name", "state" and "indicate".

Always read the marking scheme. This will help you to work out how long should be spent on each section of the answer. Often a key term can be misleading.

For example: "List guidelines that should be followed for the diet of an obese person who is trying to lose weight" (15 marks). Obviously the marking scheme is five points at three marks each. Three marks for each point indicates a little elaboration is necessary. Compare this with another possible question: "List factors that affect our energy requirements" (six marks). The same key term is used in both questions but the allocation of marks indicates detail for the first question and lists of points for the second.

The A1 student



Laura Murphy is from Clonsilla in Dublin. She repeated the Leaving Cert in the Institute of Education and is now studying medicine in UCD

Home Economics is actually a terrible subject to do if you want an A1. Everyone laughs at that but it's a hard subject. I think about two per cent of people who do it actually manage the top grade. Basically I was repeating and I was aiming for medicine. I took up physics but I quickly realised that I wouldn't get an A1 in it so after three weeks I switched to home economics.

I knew that getting an A1 was going to be difficult so after I started, I worked the whole way through the year. The course is too big to cram and it's very easy to let it build up. I was in a good situation though. I had a very good teacher, a small class and excellent notes. We didn't use the book really. The notes we had were taken directly from the syllabus and they were very useful.

There aren't many past exam papers to work with because the course is pretty new but the sample papers are still useful. I worked my whole way through the papers and brought the answers to my teacher to correct. By the end of the year I had a big stack of answers done. I'd recommend that approach.

The marking schemes are useful enough. The marking seems nice enough in home economics. I liked the science part of it and I think maybe that gave me an advantage when it came to studying it.

There is a lot of learning in food science. It's very fact-based and there are parts that you just have to take time to learn. You can't really cram it. I don't think anyone could learn the properties of vitamin A versus vitamin D in one sitting and not get confused. Social studies, on the other hand, is a lot of common sense.

The home-economics paper was okay but the lack of past papers meant that it was challenging. Time is a big thing in the exam.

You can get very stuck if you're not careful and don't stick to your time schemes. You need to be careful not to get lost on question one. It's easy to get lost on it and be writing for ages. I really felt as though my hand was falling off by the end of it, but if you stick to the point and manage your time, it'll be fine.

Nine week study guide

Week one

Lipids
Fats/Oils
Cereals
Specific dietary requirement

Water
Family finance
Methods of cooking

Week two

Carbohydrates
Fruit/vegetables
Irish diet
Irish food industry

Week six
Protein
Meat
Eggs
Sensory analysis

Week three

Consumer studies
Resource management
Textiles
Household technology

Week seven
Food additives
Packaging, processing
Labelling
Food spoilage

Week four

Minerals
Milk and milk products
Fish

Week eight
Macrobiology
Domestic commercial preservation
HACCP Food laws

Week five

Vitamins

Week nine
Topics from chosen elective