

Chemistry

Delprov A2

engelsk version

ÅRSKURS

9

Elevens namn och klass/grupp

12. In an attempt to reduce the use of plastics, many countries have raised the price of plastic bags or banned plastic bags.

Start from your knowledge about the use of natural resources and spreading processes in the nature. Reason about why it can be good to reduce the use of plastic bags.

Reason from two perspectives in two steps.



13. The possibility of keeping products frozen for a long time

The article is about a bag that keeps products cold.

Source: Ny Teknik (technological journal). Published: 2015-11-23.

Here's the Swedish bag that keeps food frozen a whole day

A new Swedish shopping bag keeps the food frozen a whole day.

"After seven years of development, we are finally ready for launching", says Karl Fallgren who, before studies at Royal Institute of Technology (KTH) worked ten years at grocery stores, for example Vivo.

It looks and feels almost like a normal shopping bag. Karl Fallgren opens the zipper and shows a couple of liters of milk. They are still cold even though they have been several hours in a bag in room temperature. From another bag, he picks up ice-cream, frozen fish and chicken that also have been stored for hours in the bag.

The secret is a new paper-based material with extremely good thermal insulation. Another important component is the specific zipper making sure no air gets into the bag.

The development has been in collaboration with researchers at KTH and the research institute Innventia. The material is applying for patent.

"I can tell you that it is made of pulp mixed with other natural substances. The aim is to sell 20 million next year", says Karl Fallgren.

The bag's ability to prevent the release of any cold can also be boosted with for example, dry ice that today is used in different cool boxes. According to Karl Fallgren, the same amount is not needed.

Transportation of food is the main area of use, but the bag can also keep sensible medical drugs cold during transportation. In the long run, they can also be sold directly to consumers who want to bring cold food home from the grocery store.

The bag can be reused a few times before it can be left at the regular paper recycling bin.

Karl Fallgren says that he also wants to sell bags to aid organizations in, for example, Africa to prevent food being destroyed by the heat.

- a)** In the article, scientific advantages with the bag are given.
State one of them.



- b)** Examine the article from a perspective of source criticism.
Reason about the article's trustworthiness from two different source-critical perspectives.

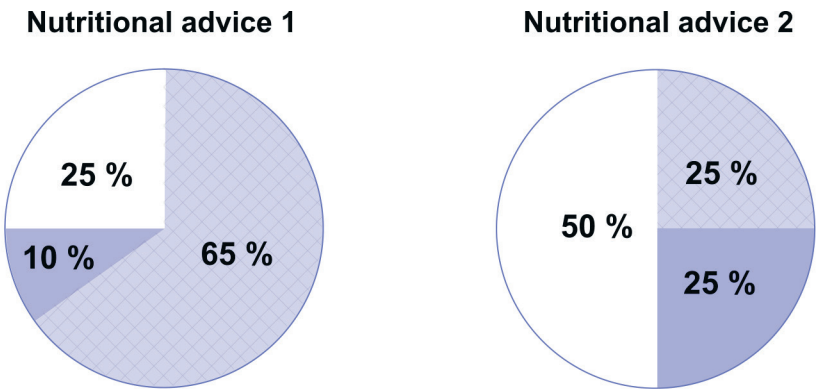


a)

b)

14. Nutritional advice 1 or nutritional advice 2?

Below are two examples of nutritional advice, both recommending food with the same amount of energy but where the distribution of the nutrients carbohydrates, fats, and proteins are different. All nutrients are needed for the chemical processes in the body's organs.



Facts about carbohydrates	Facts about fats	Facts about proteins
<ul style="list-style-type: none">• Energy value: 4 kcal/g.• Built from simple and combined sugars.• Becomes blood sugar.	<ul style="list-style-type: none">• Energy value: 9 kcal/g.• Built from glycerol and different fatty acids.• Needed, for example, in the body to absorb vitamins.	<ul style="list-style-type: none">• Energy value: 4 kcal/g.• Built by amino acids connected in long chains.• Used, for example, as construction material in the body.

Your task is to use the information from the fact box and write a text where you shall:

- Take a stance for either nutritional advice 1 or nutritional advice 2.
- Formulate two arguments in two steps arguing for the nutritional advice you have chosen and formulate one argument in two steps arguing against one of the two nutritional advices.
- Use scientific concepts for context in the arguments.

My stance is:

Write your text:



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