

Chemistry

Delprov A2
engelsk version

Årskurs

9

Elevens namn och klass/grupp

14. Mobile phones contain heavy metals, for example lead and mercury.

Your task is to:

Argue why it is important to hand in used mobiles to a recycling center.

Your argumentation has to have two arguments in two steps. You should start from your knowledge about heavy metals as a natural resource and their influence on plants and animals.



15. Flame retardants

The text is about flame retardants.

Source: Ny teknik (journal). Published 2010-11-01.

Researchers demand action on flame retardants

In a joint statement, 145 researchers from 22 countries point towards a large number of risks with organobromine and organochlorine flame retardants.

– We are now moving further and writing letters to governments around the world to focus their attention on this problem, says Åke Bergman, professor in environmental chemistry at Stockholm university.

He is one of the researchers behind the statement published in the journal *Environmental Health Perspectives (EHP)*.

– The industry just continues doing things in the same old way. If one substance is forbidden then the replacement with the similar chemistry is also going to be forbidden eventually, he says.

Researchers also question whether flame retardants actually increase fire safety.

– We are not saying that they are not suppressing at first, but at the same time they increase the amount of toxic flue gases, says Åke Bergman.

By using alternative materials, the industry could decrease the use, he suggests.

Organobromine and organochlorine flame retardants are used in, for example, furniture, textiles, and electronic devices. The compounds are stored in the body and in the environment and there are, according to the researchers, risks that they might harm unborn children, have hormone-changing effects, and cause cancer.

Your task is to:

a) Find scientific information in the text and state a disadvantage with flame retardants.



b) Working from the text, reason about the text's trustworthiness from two different perspectives of source criticism.



a)

b)

16. Organic cotton, hemp, or synthetic material?

Production of fabrics is one of the world's largest industries. During production of fabrics, many different materials are used. Depending on the material used, from a scientific perspective, there are both positive and negative consequences.

Facts about organic cotton	Facts about hemp	Facts about synthetic material
<ul style="list-style-type: none"> Organic cotton is produced from plant fibres from cotton plants. Grows in for example India. Appr. 29 000 litres of water needed to produce 1 kg cotton. Energy consumption: 10MJ/kg 	<ul style="list-style-type: none"> Hemp is produced from plant fibres from hemp plants. Grows in for example Sweden. Appr. 1000 litres of water needed to produce 1 kg hemp. Energy consumption: 25MJ/kg 	<ul style="list-style-type: none"> Synthetic material is produced from petroleum. Petroleum is produced in for example Norway 0 litres of water needed to produce 1 kg synthetic material. Energy consumption: 100MJ/kg

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

- Take a stance for organic cotton, hemp or synthetic material.
- Formulate two arguments in two steps arguing for the material you have chosen and formulate one argument in two steps arguing against one of the three materials.
- Be objective and use relevant scientific concepts in the arguments.



My stance is:

Write your text:



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