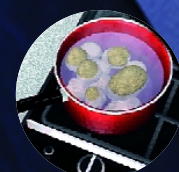


THE WORLD GAME

EVERY CHOICE MAKES A DIFFERENCE



MOTIVA

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Consumer Agency & Ombudsman

TEACHERS' GUIDE FOR
CONSUMER AND ENVIRONMENTAL EDUCATION

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Consumer and environmental education have a lot in common, such as consideration of the environmental effects of consumption and the evaluation of people's role as consumers. Consumers' life-style and choices influence the state of the environment.

The goal of both consumer and environmental education is environmental awareness - to make wise choices for one's own finances and the environment, to be aware of the environmental effects of consumption and to want to act in an environmentally friendly way.

The desire to act in an environmentally friendly way generally requires personal experience and sensitization. In both consumer and environmental education emphasis is consequently placed on doing.

This guide contains teacher Leena Heinilä's ideas on handling environmental issues involving consumption. They are related to the World Game, which is part of the Finnish Science Centre's Changing Environment exhibition. The Helsinki Metropolitan Area Council, the Consumer Agency and Motiva have published a CD-ROM version of the game.

In the World Game players make everyday consumption choices and receive feedback on their effect on the environment. The game can be played alone, in pairs or in a teaching situation with AV connection to television or overhead projector.

1. BACKGROUND ON ENVIRONMENTAL MATTERS

1.1. Sustainable development – sustainable consumption – sustainable lifestyle

The UN Conference on Environment and Development was held in Rio de Janeiro in 1992. Sustainable development was made a joint goal in **the Rio Declaration**. The requirements of sustainable development should be taken into account in all social decision-making, economic life and human activities.

One of the Rio slogans is "**Think globally – Act locally**". The Rio conference prepared a programme for sustainable development, **Agenda 21. Local Agenda 21 programmes** have been prepared on this basis. These are concrete environmental programmes which are tied to day-to-day life and can also be used in education.

Sustainable development is a complex concept which includes three dimensions: **Ecological** sus-

tainability means preserving the diversity of nature and adapting human activities to natural resources and nature's own capacity. **Economic** sustainability requires that the production and consump-

tion of goods and services throughout their life cycle places a lower burden on the environment than at present and conserves natural resources. The goal of **social and cultural** sustainability is to

SUGGESTION!

Study your own community's local agenda!

Contact local environmental authorities. What are the main goals of the agenda? What topics does it include? What issues are emphasized?

Suggestions to resolve local problems

The class can prepare a plan to resolve a local problem. This can involve plans to build apartment blocks in a beautiful natural setting, the eutrophication of waterways, the pollution of groundwater or traffic emissions, for example. Pupils can study newspaper articles and

interview experts, such as environmental officials, businessmen, municipal decision-makers and local residents. First see what you know and then decide what you need to find out and where you can obtain information. Evaluate what you have learned and decide what you can do about it.



SUGGESTION!

Mindmap

A mindmap is quite useful for analysing environmental problems. Pupils spend a few minutes writing down whatever comes into their minds regarding an environmental problem. This provides a better chance for young people's own experiences and concerns to come out. Pupils can think about experiences which have made an impression on them and have something to do with a current problem. Why did they make an impression?

Debate

Environmental debates stimulate pupils to consider issues and find arguments for their claims. People can disagree for good reason. Debates in which there are no clear answers are the most rewarding.

pass on prosperity from one generation to the next.

In considering the requirements of sustainable development, the concepts of sustainable consumption and sustainable lifestyle have arisen. These refer to consumption models and habits which place the least possible burden on the environment.

1.2. Focus on preventing waste

In practical environmental protection we have proceeded in a couple of decades from limiting industrial and municipal emissions, recycling and waste sorting to the fact that attention must be paid to the front end of production and consumption. The most effective way to handle waste is to prevent its unnecessary creation. Attention is then turned to consumers, who make purchasing decisions and other consumption choices. Consumers' choices have an influence on production and product development. Environmentally conscious consumers can influence the future of the world through their own daily choices.

1.3. Changing Environment

The Changing Environment exhibition tells about the world's material flows. People in industrialized countries have to learn to live more eco-efficiently and preserve natural resources. We have to improve **the eco-efficiency** of production and produce more with less. The environmental load of a product is reduced the more often and longer it is used. The goal is to increase efficiency in the use of natural resources by a factor of about four in the next 15-20 years and by a factor of ten in the next 40-50 years. People should re-evaluate their own lifestyles and learn new models for everyday consumption situations to ensure a sustainable lifestyle.

The concept of **an ecological rucksack** illustrates the amount of natural resources which is used in a product during its life cycle. For example the ecological rucksack for a 5-gram gold ring weighs 2,000 kg. To make a gold ring you have to pump oil, quarry rock, build roads etc. The end product is only a very small part of the energy and materials involved in pro-

duction. Sustainable development requires **a reduction in material flows**. An ecological rucksack can be calculated for a product in five different categories: abiotic (non-living basic materials), biotic (living basic materials), earth, water and air. The Changing Environment exhibition allows visitors to experience concretely the ecological rucksack of different products.



THINK!

Every Finn collects an ecological rucksack weighing around 1,500 kg each week (Vähä-Jaakkola 1999). Evaluate the content and weight of your own ecological rucksack.

Orange juice is made from oranges grown in Brazil. Chemical pesticides and fertilizers are used in growing oranges, and agriculture causes erosion. Water is also used for irrigation. Oranges are picked and transported by truck and then by air to Europe, where they are squeezed and packaged. This requires a lot of energy, particularly oil. If all this is added up, each can of orange juice requires 25 kg of natural resources.



Other ecological rucksacks

coffee maker	298 kg
toothbrush	noin 1.5 kg
plastic bucket	26 kg
silver chain	20 kg
12 wine glasses	6 kg
5-gram gold ring	2000 kg
wooden beads	0.5 kg

(Simonen 1999)

The MIPS (material input per service) unit was developed to describe how eco-efficiently natural resources have been used throughout a product's life cycle. In the future you may be able to see MIPS

units displayed along with price for different products. Consumers could use these to compare eco-efficiency.

SUGGESTION!

MIPS formula:

$MIPS = MI/S = \text{ecological rucksack} / \text{times used}$
The more times a product or service is used, the more eco-efficient it is.

Should you buy a plastic bag or a cotton bag?

Ecological rucksack

	Plastic bag (PE plastic, 18 g)	Cotton bag (54 g)
abiotic and biotic material	0.1 kg	1.277 kg
water	1.17 kg	214.704 kg
air	0.04 kg	0.216 kg
earth	0 g	3.402 kg

(Vähä-Jaakkola 1999, Wuppertal Institute)

If you buy a new plastic bag every time you go to the shop, how much weight will accumulate during the course of a year (ecological rucksack x number of shopping trips)? A cotton bag will last a whole year. Calculate the MIPS for a cotton bag after a year's use (ecological rucksack / number of times used). Which bag do you think is better? Why? How could the eco-efficiency of a cotton bag be improved?

Think up additional calculations yourself.

Ecological rucksacks can be found at <http://www.sll.fi/kestava/kvt.pdf>

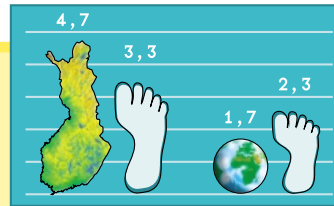
Ecological footprint

An ecological footprint is used to show how much space is required to produce consumer goods and services and to handle waste and emissions.

The basic assumption is that the consumption of energy and materials

and the returning of emissions and waste to nature requires a certain amount of land, whose size is illustrated by the area of the footprint. The ecological footprint is compared to ecological capacity or biologically productive land area. Ecological capacity is calculated as the total area of available farming land, pasture, forest and built-up land.

The ecological footprint of the average Finn is 3.34 hectares. Energy accounts for over half the total. The average ecological capacity of Finns is 4.71 hectares. The ecological capacity of the entire globe is about 1.7 hectares per person and the average ecological footprint is 2.3 hectares. *(Hakanen 1999)*



2. CONSUMER AND ENVIRONMENTAL EDUCATION IN SCHOOLS

2.1. Goals

An important goal of education is to awaken and increase pupils' environmental awareness, which includes information, attitudes and activities related to consumption and the environment. Three important principles of consumption are to consume less, to reuse and to recycle.

2.2. The school's own example

Environmental education is easier if the school itself gives a good example. It is easier to talk about recycling if the school recycles its own waste. Pupils, teachers and other personnel should have a clear view of the school's basic task, vision and operating idea. It would be good if the working community decided jointly on key objectives and means to achieve the goals of consumer and environmental education.

SUGGESTION!

Environmental survey of different school facilities

Teachers' room, classrooms, school kitchen, cleaning room, offices...

Keep track of different types of materials, energy use, consumption habits... Can you find everyday cases where activities are in conflict with the goals of a sustainable lifestyle?

In your survey you can pay attention to the following things, for example:

- Do people at your school conserve energy by turning off machines which are not in use?
- Are lights left on in rooms when no one is there?
- Are classrooms too hot?
- Does your school take advantage of solar light and heat?
- Does your school have leaky pipes and dripping taps?
- Does your school use disposable dishes and cups?

- How is paper recycling arranged at your school?
- How much school food is thrown away and what happens to food waste?
- Is biowaste sorted in the teachers' room?
- Is problem waste disposed of properly?
- Who is responsible for maintaining the school grounds?
- Are school staff interested in developing the school working environment and in environmental matters?

You can prepare cards to help you with the survey. Pupils (teachers, parents, other staff) can divide into groups according to facilities. Comments on observations and development ideas can be written down on cards and then discussed.

2.3. Approaches

Environmental problems should be approached from different angles in different subjects. In this way pupils can see that environmental problems are related in many ways and that action is needed in different areas to resolve problems. So that pupils can form a complete picture of environmental issues and phenomena, these should be discussed in an expanding framework, beginning with what is local and familiar and going on to regional and eventually global aspects.

A positive discussion atmosphere promotes creativity and co-operation. Education is more likely to succeed if pupils can express their opinions and feel that they can influence matters. Pupils should be able to ask questions and voice doubts. Open-mindedness and curiosity are a great resource.

Environmental threats and problems can be distressing. For this reason it is important to look for ways in which individuals can influence matters. The situation is

not hopeless, but each person can influence the state of the environment through personal actions. Every act which protects the environment is valuable. By saving one tree at a time we can save the world's forests!

2.4. Warming up

Different types of mental exercises are real and concrete and they can play an important role in helping us to evaluate the state of the environment. The senses of sight,

SUGGESTION!

Arrange an environmental discussion panel at your own school!

Invite school experts, municipal experts and representatives of different fields: commerce, industry, local authority, nature protection society, residents' association, media, concerned citizens... The panel can discuss planning an environmental programme for your school. What should be developed and what goals should be set? What is important? Decisions should be made on responsibilities, operational objectives and timetables. How can commitment be ensured and how will activities be visible in school work, values, the syllabus and the school's mission? Will the programme be implemented in connection with different subjects, in the form of theme days or

special studies? How will it be visible outside instruction? How will the implementation of the environmental programme be evaluated? You can prepare guidelines concerning how to act in difficult situations, for example if disagreements arise. How should conflicts be resolved without jeopardizing basic principles?

The panel can also be arranged in dramatic form. A pedagogic drama helps pupils to identify with roles and situations and to learn to study issues, events and relations. You can prepare a summary of the panel's ideas and different alternatives and send it to local authorities or the local press, for example.

The panel can be conducted in two stages, first with pupils, teachers, parents and other staff. These can decide together on representatives to the second-stage panel.

hearing, smell, taste and feel are all important tools. A creative environment allows pupils an opportunity to use all their learning channels - visual, auditory and kinesthetic. Acting helps pupils understand the dynamic nature of ecological phenomena.

The environment has its history and future, which can be studied globally and regionally. A regional approach is a fruitful way to study history, culture and environmental issues.

Being in and observing nature is important. The school's own environmental protection programme can include looking for a local area worth protecting, cooperation with local residents' associations (to clean up waste, for example), improving recycling and waste management at the school - sharing responsibility for the environment.

SUGGESTION!

Imagine the smell of a meadow in the summer, see how the environment changes, taste natural products, feel the shapes of nature. You can take measurements, do laboratory tests, conduct surveys...

OBSERVE AND THINK!

Study the environment for a certain period individually, in pairs, in a group. What things interest you? Analyse different environmental sounds and the way they make you feel. How do the colours of the built-up environment and nature differ? Why is something pleasant or unpleasant in nature? Are there written or unwritten rules in the environment concerning power, social hierarchy, sanctity, commonness, openness and secrecy? Can you see pollution and environmental damage in nature?

SUGGESTION!

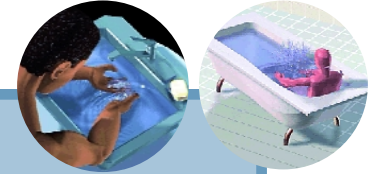
Classes can organize different environmental trails.

Pupils can do their own environmental research. An environmental trail develops pupils' ability to observe their immediate environment: school, neighbourhood, village, town, nearby lake... The main thing is to consider environmental values and to discuss observations. How have transport, scenery, waterways, buildings, ethics, diversity, plants, animals, background sounds, tidiness, recreation possibilities, different age groups, building materials, safety, the built-up environment and nature been taken into consideration in environmental planning? Nature makes things visible. You can describe the environment by observing houses, public buildings, squares, roads, parks, green zones, recreation areas, forests, fields, meadows, development, environmental problems, air, water, soil, plants, industrial areas, energy consumption, noise and waste... Different environments can also be studied in different roles: official, conservationist, road administration representative, motorist, tourist, biker...

3. BUILDING A SUSTAINABLE LIFESTYLE

3.1. Evaluating personal consumption habits

Every one of us influences our environment. Every day we make choices as consumers according to our own preferences and habits. Environmentally friendly values and attitudes are reflected in everyday choices and actions.



THINK!

What do we really value and need? Why do eco-consumers conserve water and energy? Why do they prefer public transport?

Consumption attitudes and values come from home, friends, school... The environment guides us to think in a certain way. Positive attitudes and high self-esteem provide a good basis to recognize natural phenomena, to understand global threats and to seek remedies for them.

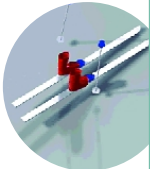


THINK!

What type of daily consumer choices do we make at school/in shops/in the area of transport...? What choices and habits are environmentally friendly? Conduct a consumer survey in your class/school/shop. How would you classify yourself as an eco-consumer? Why?



In the World game eco-consumers conserve water and energy. Eco-consumers arrange housing, work and hobbies close to each other and thus reduce the need for transport. They pay attention to how they get from one place to another and preferably go under their own power or using public transport instead of by car. Eco-consumers select necessary products and services in a sensible way. They buy products which are sustainable, repairable and lightly packaged. Eco-consumers recycle as much as possible.



SUGGESTION!

To change your living habits, you have to know what you are doing and see a conflict between environmental values and habits. Think of different examples in your neighbourhood where activities are in conflict with the environmental goals of a sustainable lifestyle.

SUGGESTION AND TASKS!

Newspapers, magazines, TV programmes, films, literature and music offer all sorts of possibilities for environmental education. A newspaper connects a school to the surrounding community, allows different types of work and livens up teaching. With the help of questions beginning with what, where, when, how and why, pupils can seek answers to local, regional and global environmental problems. By comparing, analysing and evaluating articles, young consumers can learn to be active and discriminating listeners, lookers and readers.

How is the environment described in different newspapers/magazines?

It can be described with adjectives or emotions which come to mind as you browse through newspapers/magazines.

- What kind of environmental images do different newspapers/magazines create?

Analyse. How do images differ? Why?

- What kind of environmental news do different newspapers/magazines contain? What do they say is happening in the environment? What aspects are emphasized in headlines?
- What pictures of the environment are displayed?
- What kind of environmental positions do local papers take? How are positions justified and what values do they reflect?

To what extent does the news focus on essential matters?

How much or how little attention do different environmental issues receive in the press compared with their real significance? What local/national environmental issues receive too little attention in the media?

Do attitudes and values differ?

Why?

Environmental news in the press can also be studied in different roles: city person, farmer, different age groups, different professions...

3.2. How do needs arise?

We live in a world of constant visual communication, where messages often have a commercial purpose. Advertising aimed at young people often takes advantage of the uncertainty which comes with puberty. Clothes, shoes, beauty products and other goods are used to sell beauty, self-assurance, a sense of belonging and happiness. People build their identity and try to achieve social approval through consumption. Becoming an independent person in control of his/her own life involves the ability to distinguish between real needs and needs created by the market.

THINK!

What is really necessary and important in life? What kinds of things make people happy? What kinds of things, goods, property and values are important? What does the good life mean for young people? Could you buy your clothes at a flea market? Who needs furs, cosmetics...? What would you take with you to a desert island?



4. HINTS FOR THE WORLD GAME

In the World Game the task is to save the world by selecting alternatives which consume the least possible energy and other natural resources. According to your own choices the fuse burns slowly or rapidly. The game includes ten questions. When you have answered all the questions and made your own choices, you will receive an evaluation of your own consumption behaviour from the viewpoint of the planet.

Over half of the energy consumed by households is consumed

indirectly. Households purchase products and services whose production, transport and storage require a lot of energy. Key words for low energy consumption are domestic, local, short transport, simple packaging, easy-to-work materials and recycling.

4.1. Where does food come from?

Find out where school food comes from. What kinds of ingredients are used? Do the seasons affect

the selection of ingredients? Are products and packaging environmentally friendly? How are recycling and waste sorting arranged?

Pictorial account of the food cycle

Pupils can prepare a pictorial account of the food cycle and its different stages (ingredients, production, sale, consumption, disposal) and their effect on the environment. What burden do different stages place on the environment? You should pay attention to more than the price of food, the way it tastes and how healthy it is. By choosing domestic and local food-stuffs you can reduce the need for unnecessary transport. The longer the journey and life cycle a product has behind it, the larger its accumulated energy consumption. The amount of energy required to produce food begins with planting and fertilizing. It is increased by processing, packaging and transport. Additional information on the life cycle of foods is available at <http://www.finfood.fi/opetus>

THINK!

How does the average Finnish consumer's day begin? How does it continue? Make comics or other picture accounts of different consumers' days. Compare and analyse your impressions.

When you wake up and go to the bathroom, how many litres of water do you use in the shower, brushing your teeth, flushing the toilet...? How much energy is consumed in heating water, lighting, cooking...? How are buildings heated - with renewable forms of energy or with fossil fuels? How do you get from one place to another? What does your ecological rucksack accumulate during the day?

4.2. Food and energy consumption

The larger the accumulated energy (MegaJoule/kg) of a product, the more it generally pollutes nature.

Accumulated energy for different kinds of foods

vegetables	5.7 – 7.6 MJ/kg
potatoes	7.5 MJ/kg
milk	6.3 – 7.8 MJ/kg
bread	13 – 16.6 MJ/kg
fish	11.7 – 21.5 MJ/kg
margarine	16 MJ/kg,
rape oil	18 MJ/kg
cheese	16.8 – 32.7 MJ/kg
sugar	28 MJ/kg
meat	25.7 – 50.3 MJ/kg
greenhouse vegetable	40 – 80 MJ/kg
butter	81 MJ/kg

(Ranne 1995)

4.3. Energy conservation

Reducing consumption does not have to mean lowering the quality of life. There are many ways to get the same benefit with less waste. If you want a glass of milk, you don't need to buy the whole cow!

What happens in the school kitchen?

Find out about energy consumption in your school kitchen. Is the kitchen included in your school's environmental programme? Does the school have a heat-recovery system? Does it use energy-conserving methods? How? What kinds of instructions and maintenance guidelines does the kitchen have? How are they applied? Do machines and equipment have energy labels which indicate the manufacturer and model, energy consumption class, energy consumption per year, noise and volume? You can find out more about energy consumption from <http://www.energia.fi/koti/>. Information on energy consumption in industrial kitchens is provided at <http://www.motiva.fi/tietopankki/palvelut>

How can energy be conserved?

Arrange a discussion on energy conservation. Is your school's/kitchen's environmental programme eco-efficient? Guidelines on energy conservation and ways to improve energy consumption at

schools are provided at <http://www.motiva.fi>

In the World Game eco-consumers use potatoes to make a meal. They pay attention to how they get from one place to another and preferably walk, bike or use public transport. Do you walk to the shop? Do you bike or do you go by car, bus or train? Choices have an indirect influence on the environmental effects of purchases, for example. Traffic emissions affect the amount of carbon dioxide in the atmosphere. The atmosphere works like a greenhouse. It lets in radiation from the sun but keeps in heat from the ground and air. The increase in greenhouse

THINK!

Are there organic products in your home/school/shop? What is the life cycle of organic products? What kind of ecological backpack do foods produced in fields/greenhouses have? Do you choose domestic foods? Why?

gases raises the temperature of the atmosphere, which brings about changes in rain and wind patterns and causes more frequent storms.

4.4. Transport and energy consumption

The energy efficiency of different modes of transport is measured in terms of energy consumption per passenger-kilometre.

SUGGESTION!

Study the ecological cost of your trip to school using different modes of transport. What way is eco-efficient? Calculate daily, weekly and annual consumption for different modes of transport. What factors influence the choice of transport? Information on responsible choices in the area of transport is provided at <http://www.motiva.fi/tietopankki/>

The ecological rucksack if you travel by car, bus, tram and bike is as follows, according to the Wuppertal Institute:

Abiotic and biotic rucksack

by car	847 g/passenger-km
by bus	460 g/passenger-km
by tram	613 g/passenger-km
by bike	162 g/passenger-km

Water consumption

by car	11240 g/passenger-km
by bus	4592 g/passenger-km
by tram	10329 g/passenger-km
by bike	5314 g/passenger-km

Air consumption

by car	218 g/passenger-km
by bus	144 g/passenger-km
by tram	76 g/passenger-km
by bike	19 g/passenger-km

Earth consumption

by different modes of transport	0 g/passenger-km
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4.5. Hobbies and energy consumption

Leisure activities also require transport. An environmentally conscious athlete will strive to consume only his own physical en-

ergy in sports and to recycle sports equipment. Indirect energy consumption (production of goods and services, landscaping, equipment, travel, buildings and their maintenance) is included in the accumulated total. Energy consumption can be calculated by multiplying a device's power rating by the amount of time it is used. **For example** 1000 W or 1 kW x 1 hour = 1 kWh.

Total energy consumption

(direct and indirect) per outing and person is as follows:

going to a cafe	6 kWh
going to a restaurant	17 kWh
going to an ice-hockey match	17 kWh
going to a car race	290 kWh
going for a ride in a rowing-boat	1 kWh
moottoriveneellä	35 kWh
going cross-country skiing	6 kWh

(Mäntylä et al. 1996)





4.6. Do you always have to buy something new?

Nowadays there is a machine to do just about everything from brushing your teeth to making bread to handling bank business. Households buy lots of appliances and consumer electronics, but is all this really needed? Does everyone really need their own a lawn mower or would it be possible to share with a neighbour or get someone else to do it. What you need is to get the grass cut, not to own a machine.

SUGGESTION!

- Interview pupils, teachers and other staff at your school concerning their hobbies. Collect a Top Ten chart of hobbies at your school. What kind of environmental effects do hobbies have?
- Arrange an exhibition of unnecessary things in your class or school. Conduct a thorough study of goods: country of origin, raw materials, place purchased, purpose, how you got it...

THINK!

What things influence total energy consumption? What hobbies are bad or good for nature and the environment? What advantages are there to individual/group hobbies? How do eco-efficient consumers spend their leisure time?

THINK!

How do needs arise?

Before you buy something, ask yourself: Do I really need this? How important is it compared with something else I need? Instead of buying it, could I make it myself, trade for it, borrow it or rent it? Different options are often available. Which one is best in terms of quality? Which hurts the environment least, considering production, use and recycling?

If you already own something, ask yourself: How can I take care of it so that it will last as long as possible? How can I repair it if it breaks?

If you no longer need something, ask yourself: Can I use it in another way? Can someone else use it? If not, how can I dispose of it in an environmentally friendly way?

You can obtain information on appliances at <http://www.kuluttajavirasto.fi/tietoa/talous/kodinkone.html>. This site gives examples of appliances along with common defects and how you can check for defects before you buy a new product.

SUGGESTION!

What kinds of products would an eco-guide recommend to consumers? You can arrange a dramatic presentation.

SUGGESTION!

Make a chart of consumers' criteria. What characteristics are important? What is required for a detergent to receive the European or Nordic environmental label, for example? Plan an eco-label aimed at young people.

THINK!

What does the saying "a poor man cannot afford to buy something cheap" mean? What kinds of values and attitudes does this saying reveal?

SUGGESTION!

Pupils can visit local shops and look at different kinds of products and advertising. How is concern for the environment reflected in shops and are products marketed as being environmentally friendly? How are products packaged? What about energy consumption, waste management, product characteristics...?

THINK!

Eco-marketing

What kind of images does a green environmentally friendly eco-product create? Do you make choices and purchase products which are advertised as being good for the environment? Do ads tell about the environmental effects of products? Pick a product which has been advertised as environmentally friendly. Evaluate this claim in relation to all the environmental effects of the product. Is packaging recyclable but the product itself is bad for the environment or is packaging needed at all? What are environmental claims based on? Advertising uses different kinds of attractions to sell products to consumers. What methods are used in environmental advertising: pictures of nature, colours, sounds...? Is it possible to evaluate a product's real effects on the environment? Has a product been praised as environmentally friendly without information on the product's whole life cycle? Is the product superior to other products on the market in terms of its environmental effects?

Additional information on eco-marketing is available at <http://www.kuluttajavirasto.fi/lait/ohjeet/markkinointi/ymparist.html>

5. LINKS TO THE WORLD GAME AND CONSUMER AND ENVIRONMENTAL EDUCATION

(<http://www.kuluttajavirasto.fi/tietoa/koulut/index.html>)

Adato Energia Oy

- information on electricity consumption in the home

<http://www.energia.fi>

Basic information package on climate change

<http://www.ilmasto.org>

Consumer's databank

<http://www.kuluttajavirasto.fi>

Eco-Buyer's Guide and information on environmental labels

<http://www.kuluttajavirasto.fi/tietoa/ymparisto/index.html>

EDU.fi - News and information service provided by the National Board of Education

<http://www.edu.fi/koulu/oppimat.html>

Ekokem - handling of problem waste

<http://www.ekokem.fi>

Energy conservation tips for everyday situations

<http://www.espoo.fi/energia/>

Energy game - how much is a lot

http://www.tilastokeskus.fi/tk/tp_db/energia/energia.html

Environmental education, ethics, philosophy

- recommended reading

<http://www.ouka.fi/wwwymp/kasvatus.html>

Environmental pages of the Nordic Council and the Nordic Council of Ministers

http://www.norden.org/verksamhet_sk/miljoe/index.html

Finland's energy strategy

<http://www.vn.fi/ktm/3/enstrat/ensisalt.htm>

Finnish Association for Nature Protection

<http://www.sll.fi>

Finnish Centre for Radiation and Nuclear Safety

<http://www.stuk.fi>

Finnish Nature League - nature activities and environmental protection for children and young people

<http://www.luontoliitto.fi>

Finnish Science Centre

<http://www.heureka.fi>

Freenet's environmental information

<http://www.freenet.hut.fi/ymparisto/>

Geological Survey of Finland – information on the sustainable and balanced use of natural resources
<http://www.gsf.fi>

GLOBE project - active environmental science and education programme for students, teachers and researchers
<http://www.edu.fi/projektit/globe/>

Helsinki Metropolitan Area Council – information on waste management and air protection
<http://www.ytv.fi>

Information on environmental administration
<http://www.vyh.fi>

Information on the EU environmental label
<http://europa.eu.int/comm/environment/ecolabel/>

Information on the Nordic environmental label
<http://www.sfs.fi/svanen/>

International Energy Agency
<http://www.iea.org>

Links in the environmental field
<http://www.yle.fi/ympuut/linkit.htm>

Motiva – energy user's databank (transport, children and young people...) and energy saving guide for schools
<http://www.motiva.fi>

Multimedia on the state of the Finnish environment
<http://www.vyh.fi/tutkimus/ympieto/mm2000/projekti.htm>

Safety Technology Authority
<http://www.tukes.fi>

Technical Research Centre of Finland
<http://www.vtt.fi>

The EU's environmental site
<http://europa.eu.int/comm/environment>

The Government's sustainable development programme
<http://www.vyh.fi/poltavo/keke/keke.htm>

The international eco-schools environmental programme
<http://www.feee.org>

Opus - guide to a sustainable lifestyle
<http://www.kaapeli.fi/visio/opus/>

UN Environment Programme
<http://www.unep.org>

Web sites and links related to environmental education
<http://www.tukkk.fi/org/sykse/linkit.htm>

Wuppertal Institute - environmental information
<http://www.wupperinst.org>



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