

1. Name of the tool

The Money and energy habits – game



2. Introduction

This game is to help children understand the financial cost of energy and see how savings can be made. It teaches about making wise spending choices and also helps pupils to learn simple ways to save money and energy.

The money game is an attractive tool with an easy adaptation concept for each country to play and experiment on the topic of an energy use and consumption.

3. Experience with the activity

We used this tool when we were teaching with schools as part of FEE project. This game was very useful with a motivational discussion amongst pupils. It was a good collaborative activity, where pupils enjoyed using their mathematical skills, calculating and understanding the cost of each electrical equipments.

Summary of the tool

➤ **Concept**

Students will manage a £100 budget to pay cash tokens for their energy use and save for the things they desire.

➤ **Goal**

Students will use play money to understand the Cost of their energy habits.

➤ **Needed material**

2 envelopes: 1 marked "ME" and 1 marked "UTILITY"

Play energy money: £100 per student

One copy of Pay me game questions

➤ **Procedure**

1. Each student should have £100 made up of

20 of £1

10 of £5

3 of £10

2. Give each student one **"ME"** envelope and one **"UTILITY"** envelope.

3. The students get paid £100, and whatever they and their family don't spend on energy at home, they can use to buy the things they want. Read each question to the group. Depending on their answer, the students will put the required amount of money in either their **"ME"** envelope or their **"UTILITY"** envelope. If a student runs out of money before the end of the game he may borrow from his **"ME"** envelope to pay the **"UTILITY BILL."**

4. Game questions :

Q: Do you have an electric blanket?

A: Yes: pay **UTILITY** envelope £2, **No:** pay your **ME** envelope £2

(Electric blankets cost about 8 pence at night or £2.40 a month per person. Using warm pyjamas and blankets save the most energy.) But your room is still too cold at night it costs less to use an electric blanket than to heat up the whole room: in this case pay your **ME** envelope £2

Q: Do you have a window air conditioner for one room?

A: Yes: pay **UTILITY** £20, **No:** pay **ME** £20

(Cooling only one room or area of your house costs much less than cooling the entire house. Keep the doors closed to un-used rooms.)

Q: Do you take baths in the bath tub?

A: Yes: pay **UTILITY** £6

(A bath takes at least 15 gallons of hot water; that's at least 10 pence a bath. In a month that's £3 per person)

Q: Do you take showers that are less than 5 minutes long?

A: Yes pay **ME** £5

(A shower that is less than 5 minutes will use less than 6 pence of hot water.)

Q: How many members of your family take showers that are more than 5 minutes long?

A: pay **UTILITY** £5 for each person in your family who does this.

Q: Do you always, always turn off the lights every time you leave a room?

A: Yes: pay **ME** £5, **No:** pay utility £5

(An average electric bill for lights alone is £9 a month.)

Q: Are your clothes dried in a tumble dryer?

A: Yes pay **UTILITY** £13, No pay **ME** £13

(It costs about 80 pence an hour to operate. This can get very expensive after a few loads of clothes. Cleaning the filters after each load is dried and drying one load after another so the drum doesn't have to be re-heated for each load will save money.)

Q: In the summer are the curtains in your home closed to keep out the heat?

A: Yes pay **ME** £10, No pay **UTILITY** £5

(Closing curtains and putting up shades keeps the sun and warm air from getting into your house, which keeps your house much cooler. Students will probably be familiar with how light coming through a window can heat up a car on a hot day. A house with direct sunlight coming in heats up the same way.)

Q: Do you have more than one refrigerator or freezer at your house?

A: Yes pay **UTILITY** £12 for a second refrigerator or freezer.

(Each extra refrigerator costs about £12 a month, that's £144 a year!)

Q: Is your refrigerator opened more than 6 times a day?

A: Yes pay **UTILITY** £2 for each person who opens the door, No pay **ME** £5

(It costs about 3 pence every time the door is opened.)

Q: Do you listen to the radio or watch a VCR?

A: Yes pay **UTILITY** £2, No pay **ME** £1

(It costs the average household about £2.30 a month to use these.)

Q: Do you play video games?

A: Yes pay **UTILITY** £4, No pay **ME** £2

(Even though most video games are electronic and use a small amount of electricity usually they are played for many hours and the electricity adds up.)

Q: Do you have an electric toothbrush?

A: Yes pay **UTILITY** £1

Q: Do you have an electric clock?

A: Yes pay **UTILITY** £1, No pay **ME** £1

(A wind up Clock doesn't use electricity.)

Q: Do you use an electric can opener?

A: Yes pay **UTILITY** £1, No pay **ME** £1

(A good hand operated opener works well for most people.)

Q: Do you use a portable electric heater in winter?

A: Yes pay **UTILITY** £30, No pay **ME** £10

(In general, portable heaters are one of the least efficient heating sources. If you're the only one who's cold consider putting on an extra sweater instead of using the heater to warm up your room.)

Q: Does your freezer have an ice maker?

A: Yes pay **UTILITY** £3

(It is cheaper to make ice cubes with ice cube trays in your freezer.)

➤ **Conclusions**

Add up the money in each envelope; don't count any money that is in your hand.

Ask: Who has most money in their "**ME**" envelope? Who has the most money in their "**UTILITY**" envelope? Discuss how students could get more in their "**ME**" envelope. (Use this information provided with the questions.)

If this was real money, and students could get any money that they could save, what would they do?

Guidelines for teachers

-Activity involves whole class and can also be run in smaller groups.

-Discussing what could be done with saved money can lead to other discussions e.g. *If we saved this much money in schools what could we spend it on? Could we invest in energy efficiency measures/ Which measures would earn us money back in reduced bills the quickest?*

This is very good tool. How much the student learns from this depends on you. If you quickly discuss the "whys" of the questions with the students they will have a better understanding of how to change their energy practices. Stress to the students that this is a game for them to see how much extra energy they really use, so it is best if they answer the questions honestly.

Time taken

20-30 minutes

The pupils can see some of the personal benefits of energy saving.

How you judge the tool

This is a visualized, informative, enjoyable, and productive tool.

Strength: Students will use play money to understand the Cost of their energy habits.

Weakness: The Euros papers easily will be lost.

Contact

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Further info in the Tool Technical Fiche in .pdf format

Revision WP2 leader 14/10/2005
