

## Title of the Project: **Mobile Phone and Electro Smog**

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### Starting position and aims of the Project

The original idea was to collect information on the health risks of mobile phone radiation in one of our biology lessons. We wanted to find out how damaging to our health mobile phones really are. Also, we were interested in finding out how teenagers handle their mobile phones.

### Research method

We studied literature about the scientific findings on the topic of electro smog and its effects on our health and summarized our results.

We looked carefully at magazines, newspapers and the internet to find out about the latest research on this topic.

In addition, we conducted a survey among 500 pupils aged 10-17 (from middle and secondary school) in the surroundings of Bruneck (Italy).

### Findings and results

Electro smog stands for increasing “contamination” with electromagnetic fields. Being a high frequency radiator, the mobile phone sends off pulsing radiation which has a negative impact on our brain activity.

The thermal effects of the mobile have been verified by scientific studies: They can result in tiredness, nausea, sleeping disorder, nervousness, states of panic, gland troubles, and an impaired immune system. The SAR-value on the mobile is a criterion for the absorbed thermal radiation (recommended limiting value 0.2 W/kg).

According to scientific studies, the non-thermal effects (below the thermal threshold) reach from eye irritation over genotype abnormality to the stimulation of cancer.

A comparison between middle and secondary school shows that 99 % of the pupils of secondary school own a mobile while the percentage is “only” 82% in middle school.

Most of the teenagers get their first mobile phone at the age of 10-12. Most of them carry their mobile with them. Although most of them have access to terrestrial network telephones at home, they rarely make use of it. The mobile is almost exclusively used for texting other users.

Nearly all the pupils of secondary school take their mobile to school, most of them have switched it on (alert off), while 40 % of middle school pupils leave their mobile at home. The teachers hardly monitor whether or not the mobile is switched on.

Lots of the pupils questioned do have a vague knowledge of the damaging mobile radiation (among the damages mentioned most often are cancer, impotence, headache and other organic damages), but more than a third of the pupils questioned have their mobiles switched on and close to their beds over night. The majority of the teenagers spend about €20 every month on their mobiles.

Mobile phones can sometimes be a topic of arguments in families with the discussion revolving around too much texting or phoning or health risks. Approx. 12 % of the pupils questioned state that they are addicted to mobiles, 36 % state that they are occasionally.

### Final remarks

The mobile phone is regarded by teenagers as a matter of course and has become an important status symbol. However, the health risks of mobile phone radiation are to be taken very seriously. Apart from factual information, our leaflet “Handy-Horror?” (“Mobile Phone Horror?”) contains tips and encouragement on the reduction of each individual’s mobile phone pollution.