

What's Really In a Cigarette?

Have you ever wondered what is in a cigarette? Yes, tobacco and nicotine, but what about those hundreds of ingredients you never hear about? Find out what is in a cigarette and let your students know how dangerous it really is.

In this activity, teachers or adult group leaders gather as many household products as possible that contain ingredients and chemicals also found in cigarettes. Most of these can be found in our homes, and the rest are usually at the local grocery store. Place them together on a table to display them to your students.

Ask your students what all these products have in common. Ask them if they consider these products to be dangerous or poisonous if used other than directed. Then, if your students haven't guessed already, reveal to them that all of these products are ingredients in a single cigarette. Tell them about other ingredients not included in the display, such as carbon monoxide, which is found in car exhaust. After the demonstration, keep the products in safe storage or dispose of them.

Below is a list of cigarette ingredients and the products in which they can be found, as well as a list of other ingredients found in products which would be difficult to display, but which you may wish to mention.



Cigarette Ingredients

Acetic Acid: in vinegar, hair dye and developer.

Acetone: main ingredient in paint and fingernail polish remover.

Ammonia: a typical household cleaner and glass cleaner. Scientists have discovered that ammonia lets you absorb more nicotine — keeping you hooked on smoking.

Arsenic: deadly poison that causes diarrhea, cramps, anemia, paralysis and malignant skin tumors. It is used in pesticides.

Benzene: found in rubber cement, pesticides, and gasoline.

Benzo (A) Pyrene: found in coal tar and cigarette smoke. It is one of the most potent cancer-causing chemicals in the world.

Butane: found in cigarette lighter fluid and gasoline. Highly flammable.



Essential Information

Age Group: Middle School

Number of Students: 5 or more

Number of adults: 1 or more

Time: an afternoon

Resources: see list

Costs: \$20.00

Cadmium: found in batteries, and artists' oil paint. It causes damage to the liver, kidneys and brain, and stays in the body for years.

Carbon Monoxide: a poisonous gas found in car exhaust.

DDT/Dieldrin: found in insecticides.

Fibreglass: a material often used to make the hulls of boats, as well as fibreglass pipes. Small particles of fibreglass are found in some cigarettes and chewing tobacco. Fibreglass is included in these products in order to cause tiny cuts in a smoker's or chewer's mouth, throat and lungs to ensure faster delivery of nicotine and other chemicals to the blood stream.

Formaldehyde: used to embalm dead bodies. It causes cancer, and can damage your lungs, skin and digestive system. This embalming fluid is also often used to embalm small animals in biology classes, so check with your science teachers to find this one.

Hydrazine: used in jet and rocket fuels.

Hydrogen Cyanide: used as a poison in gas chambers.

Lead: a highly poisonous metal that used to be found in some paints. Lead poisoning stunts your growth, makes you vomit and damages your brain.

Napthalenes: used in explosives, moth balls and paint pigments.

Nitrobenzene: a gasoline additive.

Phenol: found in disinfectants, plastics, and used in chemistry tests in laboratories.

Polonium: radiation dosage, equal to 300 chest x-rays in one year.

Propylene Glycol: lock de-icer.

Styrene: found in insulation material (Styrofoam).

Tar: a sticky brown substance composed of organic and inorganic chemicals that is the main cause of lung and throat cancer in smokers. Tar can also cause unsightly yellow-brown stains on fingers and teeth.

Toluene: found in paint thinner and embalmer's glue. It is highly toxic.

Vinyl Chloride: found in garbage bags.



“...the amount of tar an average smoker inhales in a year is breath taking.”



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