

# Y-STEP

**Y**oung People

**S**moking

**T**obacco

**E**ducation

**P**revention



**What's in Cigarette  
Smoke**

**and**

**Effects of Smoking  
on the Body**

# Learning Intentions:

- To investigate the impact that smoking can have on a person's health, future life choices and options
- To raise awareness of some of the negative and serious physical, mental, emotional and social and legal consequences of smoking
- To identify who can help us and where we can get information from

# Young People and Smoking

1. Why do some young people try their first cigarette?
2. Why do some young people go on to become regular smokers?
3. Why do some young people find it difficult to stop smoking?

# Addiction

- Inhaling tobacco smoke delivers concentrated dose of nicotine reaching the brain in 7 seconds
- **This releases two chemicals (noradrenaline and dopamine) which both act as stimulants**
- Symptoms of nicotine addiction occur very quickly – before becoming a weekly (or possibly daily) smoker
- **New smokers may not recognise signs of dependence**
- Over time, smokers need greater amounts of

**So What's in  
Cigarette Smoke?**

# What's in Cigarette Smoke?

- In groups of no more than 6, take a bundle of cards and a tube
- Look at all the cards and tube contents and decide if you think each one is definitely in cigarettes or cigarette smoke, or if it definitely isn't
- Make a pile for those you think are, and those you think are not. You can make a pile of those you aren't sure about



# What's in Cigarette Smoke?

600 permitted additives as well as sugars/sweeteners, chocolate, liquorice.....

Tobacco smoke includes:

Acetone as found in nail varnish remover, paint stripper

Arsenic\* as found in insecticide

Benzene\* as found in petrol/paint manufacture

Butane as found in lighter fuel

Cadmium as found in batteries

Carbon monoxide as found in car exhaust fumes

Formaldehyde as found in pickling bodies

Hydrogen Cyanide as found on Death Row

Methanol as found in rocket fuel

Methane as found in farts, given off at landfill sites

Polonium-210 as found in nuclear industry

Radon\* as found in x-rays, nuclear industry

Ammonia as found in bleach, loo cleaner

# **In-Flow and Out-Flow to the Tobacco Industry**

**Inflow:** 15,000 new Scottish smokers each year

**Outflow:** 13,500 deaths per year in Scotland

In 2009, 26,485 successful quit attempts

**CSI**

**Crime Scene Investigation**

# CSI

- In your group, draw round someone to create a scene of crime outline
- Discuss and write down the effects of smoking on the body which you think might cause or contribute to death
- Choose someone to describe these to the whole class

# CSI: Effects on the Body

## Short-term effects

- Hair smells
- Stained Teeth and Bad Breath
- Yellow fingers
- Smoker's cough
- Eyes water
- Hands shake

## Long-term effects

- Wrinkled skin
- Reduced sense of taste and smell
- Hormones disrupted – “muffin tops” Pill may not work as well
- Lung, mouth, throat, bladder and stomach cancer *Giving up smoking reduces the risk of getting cancer*

# How Do the Chemicals Harm the Body?

## Inhaling Toxins in to the Body:

### **Cancer of the lips, mouth, pharynx, larynx, bronchii and lung:**

tar and hot gases pass through and settle

**Cancer of the oesophagus and stomach:** tar, spit and phlegm swallowed

**Chronic Bronchitis and emphysema:** damages the cilia (little hairs in the lungs) so lungs unable to clean out mucous, also tar settles in and damages the bronchioles (air sacs)

**Arterial disease, eg Peripheral Vascular Disease:** tar, nicotine and carbon monoxide pass into the blood stream and make fat deposits stick to artery walls. Nicotine narrows blood vessels (vasoconstriction) which leads to a rise in blood pressure

**Damage to blood vessels:** reduces blood flow, leads to blockage, Weakening and rupture of the arteries - strokes; wrinkling, heart disease; smaller babies with health problems: erectile dysfunction: gangrene and

# How Do the Chemicals Harm the Body?

## Circulating Toxins around the Body:

**Leukaemia** from chemicals in the tar damaging dividing blood cells

**Foetal abnormalities, premature births and miscarriages**

**Osteoporosis** smoking hinders your body from taking up calcium

# How Do the Chemicals Harm the Body?

## Toxins Leaving the Body:

Secretions from every part of the body (urine, sweat, tears etc) contain higher concentrations of tar and lead to a higher risk of cancers. These include:

- **Bladder cancer**
- **Pancreatic cancer**
- **Cervical Cancer**



# Tobacco Toxins Tot Up over Time

- The chemicals in tobacco smoke build up to high levels in the body over months and years.
- They are more dangerous mixed together as they interact with each other
- This explains why the risk of cancer and other diseases increases the more cigarettes and the longer a person smokes

# CSI: Effects on the Body

## Possible Causes of Death:

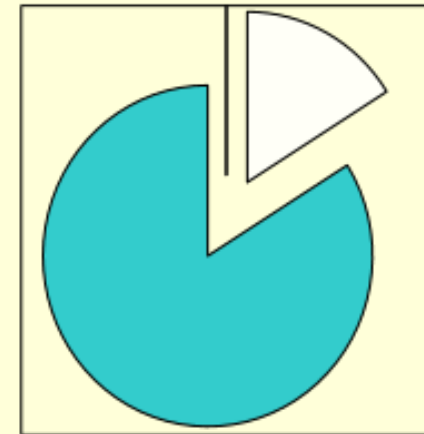
- Biggest cause of preventable premature death in Scotland (13,500 each year) 114,000 in UK
- Can take 16 years off an average 75 years' life expectancy
- 1 in every 5 deaths from coronary heart disease are caused by smoking

# CSI: Effects on the Body

**Cancer Deaths  
Caused by  
Smoking**



**Lung Cancer Deaths  
Caused by Smoking**



# Finding out for Yourself

[www.thetruth.com](http://www.thetruth.com)

[www.d-myst.info](http://www.d-myst.info)

[www.atyc.roycastle.org](http://www.atyc.roycastle.org)

[www.w-west.org.uk](http://www.w-west.org.uk)

[www.chillyoislamyo.com/cigarettes-and-hookah-is-it-the-same-thing/](http://www.chillyoislamyo.com/cigarettes-and-hookah-is-it-the-same-thing/)

If you are young, a smoker and  
would like confidential help and  
support to stop in your area:

**TXT – STOP SMOKING to 07969 530 266**

**Smokeline: 0800 84 84 84**

**Your Local Pharmacy**

**[www.canstopsmoking.com](http://www.canstopsmoking.com)**

# Y-STEP

## **Edinburgh:**

Emma Crawshaw: [emma@fastforward.org.uk](mailto:emma@fastforward.org.uk)

0131 554 4300

West, South West and North West Edinburgh

Debbie Jardine: [debbie@fastforward.org.uk](mailto:debbie@fastforward.org.uk)

0131 554 4300

East, South and North East Edinburgh

[www.fastforward.org.uk](http://www.fastforward.org.uk)