

REVISED
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TOBACCO FACTS

A resource pack
for teachers, youth
workers and those
working with children
and young people on
tobacco issues



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1. Background

Research was commissioned by Health Scotland in 2003 to investigate the views of P6 and P7 teachers on the resource needs within the field of tobacco education. The study was conducted in 25 schools in four locations throughout Scotland. The briefing paper (*Research in Brief 12: Primary school tobacco education — what do teachers need?*) and the research report are available on the Health Scotland website at www.healthscotland.com.

The 2006 SALSUS figures state that in Scotland, at age 13 about 3% of boys and 5% of girls were regular smokers. At age 15, about 12% of boys and 18% of girls were regular smokers. While smoking rates are gradually declining, the rate of smoking continues to rise between 13 and 15. Evidence shows that the younger someone starts smoking, the less likely they are to give up. Young people are therefore a priority for smoking cessation support, and for tobacco education.

2. Why factsheets?

The research indicated that teachers rarely have the opportunity to search for relevant information and literature themselves and that they are concerned they might be conveying outdated or inaccurate information to pupils. A key finding therefore was that teachers needed resources to offer up-to-date summaries of information and research.

Factsheets have the following advantages:

- They provide baseline information for teachers. Most facts are considered to be of relevance and interest to P6 & P7 and S1 & S2; although some are intended to set the wider social and cultural context around smoking for teachers. Please note that the factsheets have been written in a language and style for adults and are therefore not suitable for direct deployment to children at this developmental stage.
- They can be used flexibly across the wider curriculum.
- They can be easily updated on a regular basis.
- They can convey information in a factual and non-judgemental tone of voice. It is important that children are given the facts about smoking so that they can make informed decisions for themselves.

3. How to use the factsheets

Teachers prefer a resource that is flexible and non-prescriptive. Information from this resource can be used to facilitate discussion on tobacco usage, incorporating attitudes and behaviours. It can also be used in conjunction with other resources/mediums, to incorporate drama, media literacy, peer education, teamwork etc.

Some schools have found linking tobacco education to events such as No Smoking Day (www.nosmokingday.org.uk), the anniversary of smoke-free legislation (<http://www.clearingtheairscotland.com/faqs/pdf/info-leaflet.pdf>), or World No Tobacco Day (www.who.int/tobacco/communications/events/wntd) useful as platforms from which to introduce the subject of tobacco.

Curriculum for Excellence:

The curriculum review is currently the single most significant development within education in Scotland. As is clearly set out in Curriculum for Excellence the aim is to enable all young people to become successful learners, confident individuals, responsible citizens and effective contributors.

Within Curriculum for Excellence health and wellbeing:

- is the responsibility of all
- permeates learning and teaching
- and should be embedded in all aspects of school life.

At the time of writing, the draft experiences and outcomes for health and wellbeing had not been released. However, it is intended that tobacco, along with drugs and alcohol, will feature in the curriculum area of health and wellbeing.

In permeating learning and teaching this resource can also support:

- English and literacy (reading for information; functional or creative writing).
- Social studies (eg history of tobacco; growing, manufacturing and selling tobacco; tobacco and the environment).
- Expressive Arts (Drama, eg role-play; Art and Design, eg create an anti-smoking advertisement for No Smoking Day or World No Tobacco Day – poster or DVD).
- Technologies (using Internet to search for information; peer education – S1 & S2 designing a DVD on smoking facts for P6 & P7).
- Mathematics (numbers; money and measurement, eg working out the cost of a smoking habit, calculating smoking prevalence in the population).
- Science (chemicals in a cigarette, effect on the environment).

4. Specific issues in delivering tobacco education

4.1 Children in smoking households

Research tells us that children whose parents or siblings smoke are more likely themselves to smoke when they are older; as such, they are an important group to deliver tobacco education to. However, these children might become alarmed or distressed by the information around smoking and health, and this needs to be handled with sensitivity.

Allowing pupils to explore issues around choice and culture is important in this situation. The fact that the cultural norm around tobacco has changed over the last 30 or 40 years is particularly pertinent here. For example, when the parents of today's P6 and P7 children were growing up, smoking was more common and it was regarded as glamorous and cool (due to greater freedoms around the advertising and promotion of cigarettes). At that time, the evidence base around the health risks of smoking was less developed, and smoking was not the public health priority it is now.

Smoking is highly addictive, and the challenge of stopping smoking is well known. However, there is considerably more support now for smokers who wish to stop. Smokers may choose to use will-power alone, although they stand a much higher chance of successfully quitting if they use proven treatments such as Nicotine Replacement Therapy (NRT) (available over-the-counter or on prescription) and/or the more intensive behavioural support of the local NHS specialist smoking cessation services. See (www.canstopsmoking.com.) As of December 2005, the licensing of NRT has been extended to widen access. NRT can now be used by smokers from the age of 12. This has been advised by the Committee on Safety of Medicines. Studies showed that using NRT would certainly be safer than smoking. There is also no evidence to suggest that young people would misuse or abuse NRT. Young people thinking about using NRT should be encouraged to talk with their GP or another health professional first.

Some pupils may reject anti-smoking messages outright because they consider smoking to be an acceptable norm in their home life without any obvious adverse effects on them or their family. It is worth reminding children that the harm caused by smoking will be felt in the long term, and that not everyone will be affected in the same way. The fact remains however that smoking does significantly increase the likelihood of suffering from a smoking-related illness. Having said that, the harm caused by smoking is not always irreversible and the benefits of stopping are immediate.

4.2 Role-play based on a young person's reality

Often tobacco or drugs education might take the form of role-play. Engaging in role-play is more effective if the situations used are true to young people's reality. Studies show that peer bonding, rather than peer pressure, is most often the stimulus whereby young people start to smoke. In other words, young people may smoke because they want to belong to a particular group of people, and not because they are especially bullied into doing so.

4.3 Contacts with outside agencies

Research highlighted the useful role that outside agencies can play in supporting health education, particularly in relation to drugs or tobacco. Police agencies, school nurses and other professionals in the community may be willing to talk to schools. Local health promotion resource services (see www.canstopsmoking.com) are also a valuable source of help and advice, training and resources.

4.4 Finding out more about tobacco

A list of useful websites is provided in Appendix 1.

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Tobacco Factsheet I

What's in a Cigarette?

- » **Cigarettes** look deceptively simple, consisting of paper tubes containing chopped up tobacco leaf, usually with a filter at the mouth. In fact, they are **highly engineered products, designed to deliver a steady dose of nicotine.**
- » Modern cigarettes contain much more than **tobacco leaf**. They contain '**fillers**' which are made from the stems and other bits of tobacco that would otherwise be waste products. These are mixed with water and various flavourings and additives. **Additives** (there are 600 permitted additives) are used to make tobacco products more palatable to the smoker. They include moisturisers to prolong shelf life; sugars and sweeteners to mask the harsh taste of tobacco smoke; and flavourings such as menthol to numb the throat and facilitate inhalation, and cocoa to dilate the airways. **Filters** are made of cellulose acetate and trap some of the tar and smoke particles from the inhaled smoke. Filters also cool the smoke slightly, making it easier to inhale.
- » **Tobacco smoke** is made up of 'sidestream' smoke from the burning tip of the cigarette and 'mainstream' smoke from the filter or mouth end. It contains over 4,000 different chemicals that are released into the air as particles and gases. Some of them have marked irritant properties and some 60 are known or suspected to cause cancer.

» TOBACCO SMOKE INCLUDES:

Acetone	as found in	paint stripper
Ammonia	as found in	floor cleaner
Arsenic	as found in	ant poison
Butane	as found in	lighter fuel
Cadmium	as found in	car batteries
Carbon monoxide	as found in	car exhaust fumes
Cyanide	as found in	gas chambers
DDT	as found in	insecticide
Formaldehyde	as found in	embalming fluid
Methanol	as found in	rocket fuel
Naphthalene	as found in	moth balls
Tar	as found in	road surfaces
Toluene	as found in	industrial solvent
Vinyl chloride	as found in	plastics

- » The average 15- to 20-a-day smoker takes about 1/2 litre of brown sticky **tar** into the lungs every year. It is a mixture of many different chemicals, including formaldehyde, arsenic, cyanide (see above). Different cigarettes have different tar levels. However, research shows that low tar cigarettes are no safer than higher tar cigarettes because smokers tend to compensate for the reduction in nicotine by smoking more of them or inhaling more deeply.
- » **Nicotine** is extremely poisonous in large quantities — 60mg of pure nicotine placed on a person's tongue would kill within minutes. It is also very addictive. When smoked, it is absorbed by the body very quickly, affecting the brain within 7 seconds. It stimulates the central nervous system, increasing the heartbeat rate and blood pressure.
- » **Carbon monoxide** binds to haemoglobin more easily than oxygen, thus making the blood carry less oxygen round in the body.

Tobacco Factsheet 2

Smoking and Health

- » **There is no question that if tobacco were to be discovered today, it would be considered far too dangerous to be licensed for human consumption.**
- » Surveys show that people underestimate the health risks from smoking and the effect of passive smoking.
- » **Smoking is the single biggest cause of preventable premature death and ill health in Scotland.**
- » Smoking is responsible for 84% of all deaths from lung cancer, the most common cancer in the world. Smokers who smoke between 1 and 14 cigarettes a day have eight times the risk of dying from lung cancer compared to non-smokers. Smokers who smoke more than 25 cigarettes a day have 25 times this risk compared to non-smokers. In Britain, one person every 15 minutes is diagnosed with lung cancer.
- » 30% of **all** cancer deaths can be attributed to smoking.
- » Approximately 90% of people with mouth cancer are tobacco users. Smokers are 6 times more likely than non-smokers to develop mouth cancer.
- » Smoking obstructs or narrows the small airways in the lung and destroys the air sacs there. Smoking is responsible for at least 80% of deaths from bronchitis and emphysema.
- » Smoking clogs the arteries and causes blood clots which may lead to heart attacks and strokes. Overall, a smoker has two to three times the risk of having a heart attack than a non-smoker. It is responsible for almost one in five deaths from coronary heart disease.
- » Women suffer additional health risks. Smoking in pregnancy is dangerous to the mother as well as to the foetus (miscarriage; premature birth; low birth weight; cot death). See *Factsheet 7* for further information.
- » **Tobacco use kills around 106,000 people in the UK every year, more than 300 every day and accounts for 20% of all deaths. This is the equivalent of a plane crashing every day and killing all its passengers.** Smoking kills almost five times as many people as road and other accidents, suicide, murder, manslaughter, poisoning, overdoses and HIV put together. **About half of all regular smokers will eventually be killed by their habit.**
- » Every cigarette takes seven minutes off your life. Smoking can take 16 years off an average 75 years' life expectancy.
- » There are other health problems associated with smoking. It can affect both your sense of taste and smell. Also, smokers are more likely to develop facial wrinkles and skin damage at a younger age and have dental hygiene problems. Stomach ulcers are made worse by smoking, and wounds, including surgical incisions, take longer to heal in smokers.
- » Many of the benefits of quitting smoking are immediate. Breathing is easier and food smells and tastes better. Financial benefits are also immediate. Try out the cost calculator at www.canstopsmoking.com to calculate savings.
- » **Giving up smoking can reduce the risk of developing many of these problems.** For example, within 10–15 years of giving up smoking, an ex-smoker's risk of developing lung cancer is only slightly greater than that of a non-smoker. A young smoker suffering from bronchitis or emphysema who gives up may see some improvement in lung function as a result: damage to lungs caused by years of smoking is permanent but quitting smoking prevents it getting worse.

Tobacco Factsheet 3

Smoking and How it Affects the Way You Look

- » **Tobacco smoking seriously affects internal organs, particularly the heart and the lungs, but it also affects a person's appearance by altering the skin and body weight and shape.** While these changes are generally not as life-threatening as heart and lung disease, they can, nevertheless, increase the risk of more serious disorders and have a noticeable ageing effect on the body.
- » **Skin damaged by smoke has a greyish, wasted appearance.** Skin is affected by tobacco smoke in at least two ways. Tobacco smoke released into the environment has a drying effect on the skin's surface. Since smoking restricts blood vessels, it also reduces the amount of blood flowing to the skin, thus depleting the skin of oxygen and essential nutrients.
- » **The more a person smokes, the greater the risk of premature wrinkling.** Smokers in their 40s often have as many facial wrinkles as non-smokers in their 60s. Squinting in response to the irritating nature of the smoke and the puckering of the mouth when drawing on a cigarette can cause wrinkling around the eyes and mouth.
- » Prolonged smoking causes discolouration of the fingers and fingernails of the hand that holds the cigarette. **It also results in a yellowing of the teeth and causes bad breath.**
- » Compared with non-smokers, smokers have a two to threefold higher risk of developing **psoriasis**, a chronic skin condition which, while not life-threatening, can be extremely uncomfortable and disfiguring. Smoking is thought to cause as many as one quarter of all psoriasis cases.
- » Smoking increases the rate at which calories are burned up in the body and may act as an appetite suppressant. This might explain why smokers tend to weigh less than non-smokers. While **weight** gain is common immediately after stopping smoking, in the longer term, ex-smokers' weight may return to the comparative weight of someone who has never smoked. Weight gain can be controlled through a healthy balanced diet and regular physical activity.
- » The effect of smoking on the endocrine system (glands which secrete hormones) causes smokers to store even normal amounts of body fat in an abnormal distribution. Smokers are more likely to store fat around the waist and upper torso, rather than around the hips. This means that their **body shape** is different, insofar as smokers are more likely to have a higher waist-to-hip ratio than non-smokers. A high waist-to-hip ratio is associated with a much higher risk of developing diabetes, heart disease, high blood pressure, gallbladder problems and (in women) cancer of the womb and breast.

Tobacco Factsheet 4

Passive Smoking

- » **Passive smoking is said to occur when a non-smoker breathes in other people's smoke, sometimes called 'second-hand' smoke or environmental tobacco smoke (ETS).** As a passive smoker, the non-smoker breathes 'sidestream' smoke from the burning tip of the cigarette as well as the 'mainstream' smoke that has been inhaled and then exhaled by the smoker. **ETS is now classed as a Class A (known human) carcinogen by the Environmental Protection Agency in the USA, in the same class as asbestos, arsenic, benzene and radon gas.**
- » The first conclusive evidence on the dangers of passive smoking came from a Japanese study in 1981 that looked at lung cancer rates in non-smoking Japanese women married to men who smoked.
- » A non-smoker living with a smoker is exposed to an average of about 1% of the tobacco being actively smoked.
- » **Although the health risks from passive smoking are small compared to active smokers, the health impact is large because the numbers of people exposed to it are so much greater.**
- » Some of the immediate effects of passive smoking include eye irritation, headache, cough, sore throat, dizziness and nausea.
- » In the longer term, if you have never smoked and live with a smoker, you have a 25% increased chance of developing lung cancer than if you live with a non-smoker. Non-smokers living with smokers have a 24% increased risk of death from heart attack.
- » Every year at least 3,600 deaths in the UK are due to the effects of passive smoking. In Scotland, some 1,500 to 2,000 deaths every year are due to the effects of passive smoking. (Note: these figures were estimated prior to the introduction of the smoke-free legislation.)
- » Recent research suggests that second-hand smoke can trigger heart attacks in people with heart conditions after only short periods of exposure. Although the absolute level of risk is not yet known, it is advised that people at risk of coronary heart disease and those with known coronary artery disease should avoid indoor smoky environments, where possible.
- » **Children and infants are particularly sensitive to passive smoking.** It is estimated that 4 in 10 children are subjected to passive smoke in their homes. Adverse health effects include pneumonia and bronchitis, coughing and wheezing, onset and worsening of asthma and ear infections. For younger children and babies, there is an increased risk of cot death. More than 17,000 children under the age of five are admitted to hospital each year in the UK with illnesses caused by their parents smoking. A pregnant woman's exposure to other people's smoking can harm her unborn baby. For more information on smoking during pregnancy see *Factsheet 7*.
- » **A ban on smoking in enclosed public places was introduced in Scotland on March 26 2006. Since then, evidence has shown that the ban has helped to reduce the harm caused by passive smoking. See *Factsheet 14, Changes in Legislation*, for further information on the smoking ban.**

Tobacco Factsheet 5

Stopping Smoking

- » **Surveys have consistently shown that more than 70% of adult smokers would like to stop smoking.**
- » **It is estimated that 1,000 people a day successfully give up smoking for good. However, most ex-smokers had to try three to four times before they successfully gave up for good.**
- » **The main dangers of smoking decrease when smokers quit, even in those who have smoked for 30 years or more.**
- » **If you stop smoking, your body will begin to repair the damage almost immediately and the beneficial changes will continue for years:**
 - 20 minutes after stopping, your blood pressure and pulse rate will return to normal; circulation improves in hands and feet, making them warmer.
 - 8 hours after stopping, nicotine and carbon monoxide levels in blood will reduce by half and oxygen levels will return to normal.
 - 24 hours after stopping, carbon monoxide will be cleared from your body and your lungs will start to clear out mucus and other smoking debris.
 - 48 hours after stopping, your body is now free of nicotine and your sense of smell and taste improves.
 - 72 hours after stopping, you should be breathing more easily. Airway passages in the lungs begin to relax. Energy levels increase.
 - After 2–12 weeks, your circulation improves, and you'll feel fitter.
 - After 3–9 months, lung function is better. Coughs and wheezing reduced.
 - After 1 year, risk of heart attack falls to about half that of a smoker.
 - After 10 years, risk of lung cancer falls to half that of a smoker.
 - After 15 years, risk of heart attack falls to the same as someone who has never smoked.
- » **Most smokers still quit on their own, but there are treatments available to help increase their chances of stopping successfully. These include nicotine replacement therapy (NRT) and behavioural support. Every day, 70 to 200 smokers in Scotland call Smokeline (0800 84 84 84) for information, advice and support. All NHS boards now provide smoking cessation services. Up-to-date information on services in local areas is available through Smokeline and www.canstopsmoking.com.**

Tobacco Factsheet 6

Young People and Smoking

- » Children become aware of cigarettes at an early age. Three out of four children are aware of cigarettes before they reach the age of five whether their parents smoke or not.
 - » **The overwhelming majority of smokers take up the habit as teenagers.**
 - » Around the world, about 80,000–100,000 young people become addicted to tobacco every day. **In Great Britain, about 450 children start smoking every day. After only four weeks of smoking, a 12-year-old can become addicted to smoking.**
 - » According to the 2006 Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS), 4% of 13-year-olds are regular smokers, but by the age of 15, this increases to 15%. The overall proportion of regular smokers has reduced over recent years. However, despite this, smoking rates among Scottish teenagers are still consistently higher than the rest of the UK.
 - » **Girls are more likely to be regular smokers than boys:** 18% of 15-year-old girls compared to 12% of 15-year-old boys. However, the number of cigarettes smoked by regular smokers was higher for boys.
 - » In Scotland, there has been little change in the prevalence of regular smoking in 13-year-olds over the last 20 years, but smoking in 15-year-olds has declined over this time. In the last ten years, boys' smoking rates have fallen much more than girls'. Rates for boys are among the lowest in Europe, and girls are among the highest.
 - » **Children who smoke are two to six times more susceptible to coughs and increased phlegm, wheezing, shortness of breath than those who do not smoke.**
 - » Research indicates that there are many factors which influence children to start smoking:
 - Children are four times more likely to smoke if both their parents smoke.
 - If children believe their parents disapprove of smoking, they are less likely to become smokers.
 - Friends are the greatest influence in youth smoking. However, it is not necessarily peer pressure, but peer bonding, that is acting here. Young people may smoke because they want to belong to a particular group. Others may lack the skills to refuse a cigarette offered by a friend or someone they would like to be their friend.
 - Personal beliefs about what smoking will do for them: for example, control weight, calm nerves, give confidence, look adult and cool, or be fun, enjoyable and sociable.
- www.mindbodysoul.gov.uk explodes some of the myths surrounding these personal beliefs.**
- » Within the UK, the minimum purchase age for tobacco has increased to 18. This came into effect on October 01 2007. **It is now illegal to sell any tobacco products to anyone under the age of 18.** See *Factsheet 13* for further information on the change in legislation.

Tobacco Factsheet 7

Smoking during Pregnancy

- » Carbon monoxide in cigarettes reduces the amount of oxygen that is carried to the foetus. This increases the risk of miscarriage, premature birth, low birth weight, impaired lung function and Sudden Infant Death Syndrome (cot death). Recent research shows that the risk of cot death is approximately trebled by smoking during pregnancy.
- » Smoking during pregnancy impairs lung function in infancy, which can continue through early life, persisting into childhood. As a result of reduced lung function, body tissue receives less nutrients and oxygen, causing wheezing and shortness of breath, and in some cases, asthma.
- » Pregnant women may suffer from bleeding during pregnancy, and are more likely to suffer from excess morning sickness
- » Around half of women who smoke in the year they become pregnant, continue to do so throughout their pregnancy. Many pregnant women feel guilty about smoking while pregnant and want to give up, but find it hard to stop, or reduce, their smoking.
- » Mothers who smoke are less likely to start, or maintain, breastfeeding their babies than non-smoking mothers.
- » A higher proportion of women stop smoking during pregnancy than at other times in their lives. Pregnant women who stop smoking during their pregnancies can improve the health of their babies.
- » Pregnant women can obtain motivational support at any smoking cessation service, and some NHS boards now have a dedicated service for pregnant women. Pregnant women should speak to their local GP or their midwife for more information.
- » Ideally, pregnant women should be supported to stop smoking without NRT, but NRT may be recommended to assist a quit attempt if the mother smokes heavily as it provides nicotine in more controlled doses. Pregnant women should always consult their GP before using NRT. NRT can also be used by women who are breastfeeding. The amount of nicotine the infant is exposed to from breast milk is relatively small and less dangerous than exposure to second-hand smoke.
- » The partners of pregnant women can encourage them to give up smoking by being involved in their partner's pregnancy, encouraging their partner to keep going with the quit attempt if they lapse, and making changes to their own smoking behaviour, either by not smoking in front of their partner or giving up smoking themselves. Smoking cessation support can also be offered to the partners of pregnant women, and to pregnant women in the post-natal period.

Tobacco Factsheet 8

Addiction

- » **Smoking is often defended, especially by tobacco companies, as a matter of personal choice. However, the case for an individual's freedom to choose is severely weakened when nicotine addiction is taken into account. Nicotine is as addictive a drug as heroin and cocaine.**
- » Lack of control over the use of a substance is at the heart of what an addiction is.
- » Within 7 seconds of inhaling tobacco smoke, a concentrated dose of nicotine is delivered directly to the brain, causing it to release two substances, noradrenaline and dopamine, which act as stimulants. These have the effect of increasing your heart rate and raising blood pressure. Over time, smokers need greater amounts of nicotine to alleviate withdrawal symptoms, which set in soon after the effects of nicotine wear off.
- » Possibly one of the strongest indicators of the addictive power of nicotine is the gap between the desire to quit and quitting success rates. **Most ex-smokers had to try three to four times before they successfully gave up.** Over half of smokers expect to quit within two years, but recent history shows that only 6% are likely to quit over this period. Another way of measuring nicotine addiction is to see how quickly after waking the smoker reaches for the first cigarette of the day. In 2005, among smokers of all ages, 16% reported lighting up within five minutes of waking, while almost half of all smokers (47%) smoked within the first half hour of the day.
- » **Many young smokers think they can quit easily, but find that they are already addicted.** A MORI survey of children aged 11- to 16-years-old found that teenagers have similar levels of nicotine dependence as adults, with one third of regular smokers lighting up their first cigarette within 30 minutes of waking 1 in 12 lighting up within the first 5 minutes.
- » **In Scotland, around half of 15-year-old regular smokers reported that they would like to give up smoking, but around 70% of them felt that it would be 'very difficult' or 'fairly difficult' to do so.** Most teenage smokers (71% of 15-year-olds; 68% of 13-year-olds) had tried to give up smoking. Almost 60% of calls to Smokeline (0800 84 84 84) are from Smokers aged 16 years or under.
- » Withdrawal symptoms include cravings for nicotine, irritability, anxiety, difficulty concentrating, restlessness, sleep disturbances, decreased heart rate, and increased appetite and weight gain. These symptoms can be relieved by the use of nicotine replacement therapy (NRT) during quit attempts.
- » **The vast majority of smokers (83%) regret having started smoking and would not smoke if they had their time again.**

Tobacco Factsheet 9

History of Tobacco

- 6000 BC** First cultivation of the tobacco plant in the Americas.
- 1 BC** Native Americans begin using tobacco for medicinal and ceremonial purposes.
- 1492 AD** Christopher Columbus discovers Arawak natives smoking 'strange leaves' in the New World.
- 1572** Sir Francis Drake returns from the Americas and introduces pipe smoking to Britain; later he introduces smoking to Sir Walter Raleigh.
- 1604** King James introduces tax on tobacco after writing: 'Smoking is a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black, stinking fume thereof nearest resembling the horrible Stygian smoke of the pit that is bottomless.'
A Counterblaste to Tobacco
- 1612** Tobacco first grown commercially in America.
- 1769** Captain James Cook arrives in New Zealand smoking a pipe, and is promptly doused in case he is a demon.
- 1826** Cigar smoking begins to become fashionable in England.
- 1881** The cigarette machine was invented in the USA and smoking cigarettes spreads rapidly as it becomes more accessible to more people.
- 1908** Children's Act bans the sale of tobacco to children under 16.
- 1916** Cigarette smoking becomes widespread among soldiers as tobacco is included in army rations during the First World War.
- 1962** Publication of report from Royal College of Physicians confirms link between smoking and lung cancer; tobacco industry agrees to implement a code of advertising practice intended to take the glamour out of cigarette advertisements.
- 1965** Advertising cigarettes on TV is banned.
- 1970s** Almost half of Scotland's adults are smoking.
- 1971** Health warnings begin to appear on cigarette packs and print advertising for the first time.
- 1987** Smoking is banned on the entire London Underground system after the fire at King's Cross where 31 people died.
- 2000** Adult smoking rate in Scotland has fallen to 30%, equating to 1.2 million Scots.
- 2003** Advertising of tobacco products banned.
- 2004** Ireland introduces laws prohibiting smoking in workplaces including bars and restaurants. Proposed legislation for a comprehensive ban on smoking in all enclosed public places announced in Scottish Parliament.
- 2006** Legislation to prohibit smoking in all enclosed public places introduced in Scotland, March 26.
- 2007** Wales, Northern Ireland and then England introduce smokefree legislation in enclosed public places. The minimum age for purchasing cigarettes increased from 16 to 18 throughout the UK (October 1). See *Factsheet 14* for detailed information on the changes in legislation.

Tobacco Factsheet 10

Growing, Manufacturing and Selling Tobacco

- » Seeds for the tobacco plants are sown each year. Each plant grows about 20 large leaves. The tobacco leaves are harvested by hand or machine ready for curing or preserving. Curing or preserving improves the taste and the burning quality of the tobacco. Most tobacco is flue-cured which entails passing heated air through the harvested leaves in barns heated by pipes, oil or coal burners. Buyers from the tobacco companies purchase the tobacco. It is then taken to factories where they remove more of the moisture from the tobacco and it is packed up and left to ferment for up to three years. The tobacco is tumbled together with lots of additives until it is well mixed together. It is then shredded very finely into 'rag'. Cigarettes are made in big machines, which use four miles of paper every hour.
- » Tobacco is grown in over 125 countries, on over four million hectares of land. Just four countries — China, Brazil, India and the USA — account for two-thirds of total global production.
- » Tobacco is grown on just under 1% of the world's agricultural land, and on a wide variety of soils and climates. Since the 1960s, the bulk of production has moved from the Americas to Africa and Asia; land devoted to tobacco growing has been halved in the USA, Canada and Mexico, but has almost doubled in China, Malawi and United Republic of Tanzania.
- » **The production of tobacco leaves has more than doubled since the 1960s**, totalling nearly 7 million metric tons in 2000.
- » **The use of child labour in tobacco production is widespread.** In Brazil, for example, some 520,000 children under the age of 18 work on tobacco farms, 32% of whom are younger than 14.
- » **Each year, over five trillion cigarettes are manufactured.** China is by far the largest cigarette manufacturer, followed by Brazil.
- » Philip Morris is the world's largest trans-national tobacco company, whose Marlboro brand is the world leader. In 1999, the company had sales of over US \$47 billion. 70% of the world's tobacco is grown in developing countries, yet tobacco farmers only receive a small percentage of the profits that tobacco production generates. In a number of these countries, tobacco companies provide farmers with loans, equipment and technical assistance. Many of these farmers find themselves heavily in debt to the companies — in Brazil, it was predicted that 35% of the tobacco growers would finish the harvest owing more money to the companies than they earned.
- » **Globally tens of billions of US dollars are spent every year on marketing cigarettes.** Cigarette marketing is bolder and more aggressive in developing countries than it is in the developed world. Cigarette advertising on TV and radio is common in developing countries but this kind of marketing is becoming increasingly prohibited in developed countries.

Tobacco Factsheet II

Tobacco and the Environment

- » **Tobacco is a non-essential, non-food crop and depletes the soil nutrients faster than most other crops.**
- » **Tobacco is a sensitive plant prone to many diseases. Consequently, huge amounts of fertiliser, herbicide and pesticides are used in the growing of tobacco; up to 16 applications may be made during a three-month growing period.** These chemicals are known to leach into the soil and find their way into streams, rivers and food chains.
- » In addition to the hazards posed by using pesticides, tobacco growers are also susceptible to green tobacco sickness (GTS). This is caused by the absorption of nicotine through the skin from contact with wet tobacco leaves. Symptoms include nausea, weakness, dizziness and abdominal cramps, and fluctuations in blood pressure and heart rates.
- » **The processes used in curing tobacco leaves cause massive deforestation.** In many developing countries, trees are cut down to provide fuel for the curing process and for the construction of the curing barns. Each year nearly 600 million trees are destroyed to provide fuel to dry tobacco. This equates to, one tree being destroyed for every 300 cigarettes. Deforestation occurs mainly in developing countries amounting to 1.5% of global loss of forest cover. In one area of Malawi, nearly 80% of the wood cut down is used for tobacco, even though tobacco farmers make up only 3% of the farmers in the area. In semi-arid areas where tobacco thrives, the loss of trees can make land more vulnerable to desertification and unfit for agriculture.
- » The growing of tobacco means that less land is available for food crops. **While some food is grown between crops of tobacco, it has been estimated that 10 to 20 million people could be fed by food crops instead of tobacco.**
- » **Burning tobacco is the main source of indoor pollution in the developed world.** Tobacco smoke contains more than 4,000 chemicals, 60 of which are known or suspected to cause cancer. Tobacco is responsible for five million deaths throughout the world each year. If current smoking patterns continue, it is estimated that, by 2025, tobacco will cause 10 million deaths each year. 70% of these deaths will occur in developing countries.
- » A worldwide beach, river and streams clean-up in 2003 found **cigarette litter to be the major source of debris**, accounting for almost 30% of all items found. In a survey conducted by Keep Britain Tidy in 2002, cigarette-related litter was found in 77% of all locations throughout Britain. As part of its 'Reclaim the Streets' campaign, the Daily Mirror found that cigarette ends, packets and matches were the most commonly found items of rubbish, with 122 tonnes of this rubbish being dropped every day across the UK.
- » **Cigarettes and matches are a common cause of fires.** Smokers' materials and matches were the most frequent source of ignition causing accidental dwelling fire deaths in 2002. In the UK, 200 people are killed and 2000 injured every year in house fires caused by smoking.

Tobacco Factsheet 12

Scotland and Smoking

- » Smoking rates in Scotland have dropped over the last 20 years however, about 25% of adults in Scotland still currently smoke – around 1.3 million people.
- » There is considerable variation in smoking rates across the whole population. **Despite a marked decline in the prevalence of smoking among the more affluent over the past 30 years, rates among the least well off have scarcely changed.** 70% of smokers are in lower socio-economic groups, with people in the most deprived areas being more than twice as likely to smoke than those in the most affluent – 41% compared to 18%.
- » Smoking among females is a major concern. Approximately a quarter of women still smoke during pregnancy. See *Factsheet 7* for further information on smoking during pregnancy.
- » **Smoking causes at least 20% – 25% of all deaths in Scotland:** around 13,000 Scots die each year from smoking-related illnesses. This is the equivalent of 250 people a week or 35 people a day. **Scotland has been called the lung cancer capital of the world.**
- » Smoking results in an estimated annual loss of productivity in Scotland of about £400 million and costs the NHS between £1.4bn and £1.7bn annually in the UK.
- » **A 20-a-day smoker will smoke 7,300 cigarettes a year and will spend about £1,800 on cigarettes.** Over 70% of two-parent households on income support smoke, spending on average about 15% of their disposable income on tobacco.
- » Targets have been set to reduce Smoking rates among adults to 22% by 2010. There is also a commitment to reduce the proportion of women who smoke in pregnancy to 20% in 2010. To achieve this funding has been made available for smoking cessation services throughout Scotland.
- » The national freephone Smokeline has helped more than 1.7 million smokers with their addiction since its launch in 1992. The telephone number is 0800 84 84 84. It is open from 12 noon to 12 midnight.
- » Some of Scotland's most acclaimed advertisements encourage Scots not to smoke. Anti-smoking advertisements have won best TV commercial and best cinema commercial at The Scottish Advertising Awards in 1999, 2002 and 2004. The anti-smoking campaign Stinx, 'Why do you keep on running boy?' had a Scottish chart debut at 9 and a UK single chart at 49 in 2002 by selling almost 15,000 copies. More recent advertisements include: Butts and Smoke Snakes.
- » A ban on smoking in enclosed public places was introduced in Scotland in 2006. More information on this and the change in age legislation can be found in *Factsheet 14*.

Tobacco Factsheet 13

The Law and Government Policy

- » It is now illegal to sell tobacco products to children under the age of 18. This was increased from 16 on 1 October, 2007. See Factsheet 13 for more information.
- » All tobacco products are required to include health warnings covering 30% of the front surface and 40% of the back. The European Commission has published a range of graphic images to warn of the dangers of smoking to be introduced in member states.
- » Following the implementation of the Tobacco Advertising and Promotion Act in 2003, **most forms of tobacco advertising and promotion are now banned in the UK**. Tobacco sponsorship of sport (other than global events) ended in 2003, although sponsorship of Formula One was allowed to continue until 2005.
- » The UK has the highest tobacco taxes in the European Union. **Tax accounts for 80% of the cost of cigarettes and 75% of the cost of hand-rolling tobacco**. Studies show that a 1% rise in relative cigarette price results in about 0.55% fall in the amount smoked overall.
- » Cigarette smuggling in the UK has reached epidemic proportions: according to tobacco industry estimates, 25% to 30% of the total market is made up of illegally imported cigarettes. Tobacco smuggling is costing the Government more than £3 billion a year in lost revenue.

Tobacco Factsheet 14

Changes in Legislation

Smoke-free legislation

- » A ban on smoking in enclosed public places has been legally enforced throughout the whole of the UK. This law was introduced to protect people from the proven health risks of second-hand smoke (passive smoking). The legislation covers virtually all workplaces, including school buildings.

Below is a list of when each nation within the UK went 'smoke-free':

- **Scotland, March 2006**
 - **Wales, April 2007**
 - **Northern Ireland, April 2007**
 - **England, July 2007**
- » It is estimated that the smoking ban in Scotland alone, will prevent 219 deaths a year from lung cancer and coronary heart disease and up to 187 deaths a year from stroke and respiratory diseases.
 - » Results from research conducted both before and after the smoking ban showed an 86% reduction in exposure to second-hand smoke for bar workers across Scotland. Pubs and bars in Scotland now have air quality that is comparable to average outdoor air quality. This demonstrates how the smoking ban has had positive benefits on the health of bar workers and customers alike.
 - » Many schools have extended the ban to include playground areas, car parks and school gates. Local authorities are responsible for defining the tobacco policies for their schools over and above the legislation.

Change in Legal Age of Purchase

- » It is now illegal in Scotland to sell tobacco and tobacco products to anyone under the age of 18. This was increased from age 16 on October 1 2007. The legislation applies to both over the counter and vending machine sales of cigarettes, cigars, loose rolling tobacco and rolling papers.
- » Shopkeepers have the right to request valid ID and Proof of Age cards at the point of purchase. Appropriate and valid forms of proof of age include:
 - passport
 - photo driving licence
 - Young Scot card
 - validate card
 - CitizenCard

Cessation services such as Smokeline and www.canstopsmoking.com are available to help young people to quit smoking. Free nicotine gum and patches are available to all 12- to 18-year-olds from NHS smoking cessation services or GPs. Young people thinking about using NRT should be encouraged to talk with their GP or another health professional first.

- » For more information on the change in legal age for purchasing tobacco visit www.tobaccoagechangescotland.co.uk.

APPENDIX I

Useful Websites

The information in these factsheets is sourced from a range of reputable organisations. Contact details are given below, should teachers require more detailed information on any topic area, or wish to download additional teaching resources.

- » www.canstopsmoking.com
- » Developed by Health Scotland, this website provides information on the reasons behind why people smoke and what support is available if they are looking to quit. Local smoking cessation services can be found on this website.

- » www.ashscotland.org.uk
- » ASH Scotland is the leading voluntary organisation campaigning for effective tobacco control legislation. For 30 years, ASH Scotland has played a key role in raising awareness about tobacco use and its harmful effects and has contributed to the implementation of effective public health policies to help smokers to quit and to protect children from tobacco.

- » www.healthscotland.com
- » The national health improvement agency for Scotland.

- » www.ash.org.uk
- » ASH is a campaigning public health charity working for a comprehensive societal response to tobacco aimed at achieving a sharp reduction and eventual elimination of the health problems caused by tobacco. Includes visual and presentation resources available to download in PDF for teachers.

- » www.tobaccoinscotland.com
- » Working with key partners, ASH Scotland developed Tobacco Information Scotland to provide the best possible gateway to smoking and tobacco-related information in Scotland.

- » www.bbc.co.uk/health
- » Good interactive site for children, including the 'Body Tour' (www.bbc.co.uk/health/kids/btour.shtml). Useful information source for teachers/older adolescents on a range of addictions (www.bbc.co.uk/health/addictions).

- » www.gasp.org.uk
- » Web catalogue containing 350 stop smoking and tobacco control resources, including leaflets, books, activity packs, training materials, displays, models and posters.

APPENDIX I

Useful Websites [contd]

- » www.mindbodysoul.gov.uk
- » Targeted at 14- to 16-year-olds, but there are several relevant sections for younger children, e.g. 'Scary facts about smoking', 'Vanity facts' and 'What's in a cigarette'?

- » www.quitbecause.org.uk
- » A guide for young people on how to give up smoking.

- » www.clearingtheairscotland.com
- » A Scottish Government website which provides the background and detailed guidance for the smoking ban in enclosed public places.

- » www.tobaccoagechangescotland.co.uk
- » Information on the change in age legislation.

- » www.roycastle.org/kats
- » Lively and interactive site supporting Kids Against Tobacco initiative, which was developed by the Roy Castle Lung Cancer Foundation.

- » www.tobaccopapers.com
- » In 1999, the House of Commons Select Committee acquired access to internal documents of the main advertising agencies of the UK tobacco industry as part of their investigation into the conduct of the tobacco industry. Contains an interesting case study on the Tobacco Market and Young People.

- » www.who.org
- » The World Health Organization is the United Nations specialised agency for health. Includes *The Tobacco Atlas*.

- » www.globalink.org
- » A US site with a tobacco encyclopaedia.