

Vape, nicotine, and tobacco education

Key Stage 3 Lesson 1: Be Nicotine Free Lesson Plan

Learning objective

To learn about nicotine and the brain, addiction, and how vaping and smoking can harm young people's health.

Resources required

1. PowerPoint slide deck 'Lesson 1: Be Nicotine Free'
2. Spectrum of Addiction cards (see Resource 1)
3. Blue Tak

Learning outcomes

Students will be able to:

- demonstrate understanding of the cycle of addiction
- identify why young people are more vulnerable to nicotine addiction
- explain why vapes are not harmless but are less harmful than cigarettes

Climate for learning

Encourage respectful listening and sharing of opinions. Promote empathy and understanding - avoid shaming or stereotyping.

Ground rules should be made at the start of the lesson. Suggested agreements are:

One person talking, no interrupting

If speaking a lot, take time to listen to others. If holding onto your thoughts, speak up and share

Use 'I' statements ('I think' or 'I feel' rather than 'you don't care what I think or feel')

Respect others and be understanding of different experiences, opinions, and levels of knowledge.

Introduction (Slides 1-2, <5 minutes)

- Explain that students are starting the vaping, nicotine, and tobacco unit today.
- Establish the ground rules for the lesson. Use your own or the suggested rules.
- Explain that students will learn about how nicotine affects a young person's brain, the addiction cycle, and how vaping and smoking can harm the body.

Nicotine and the brain (Slides 3-10, 10 minutes)

Summary of learning: The human brain develops from back to front, with the prefrontal cortex—responsible for impulse control and decision-making—maturing last. This makes young people more vulnerable to addiction. Nicotine, found in vapes and tobacco products, is highly addictive and quickly affects the brain by triggering dopamine, which creates short-lived feelings of pleasure. Over time, the brain builds tolerance, requiring more nicotine to feel the same effect. As nicotine leaves the body, withdrawal symptoms like irritability and anxiety set in, leading to cravings and repeated use. This cycle alters brain function, making quitting difficult and not simply a matter of choice.

Core activity: Spectrum of Addiction (Slide 11, 20 minutes)

To understand the progressive nature of addiction to nicotine, students will work in small groups to arrange quotes describing various degrees of nicotine dependence from 'not addicted' to 'completely addicted to nicotine'.

Set up Students should work in small groups. Pass out the 'Not addicted and 'Completely Nicotine Addicted' spectrum sheet from Resource 1 to each group or pair. Alternatively, stick the 'not addicted' and 'completely nicotine addicted' cards on the classroom wall to create an 'addiction spectrum'. Pass out the quotes from Resource 1 to students so that each group has 3-4 quotes. Ensure they have a range of 'not addicted' to 'completely nicotine addicted' quotes (see [Table 1](#) below).

Explain Addiction is complicated, and many people misunderstand what it means. We are going to explore nicotine dependence by sorting quotes that represent different degrees of nicotine addiction. In the groups, ask students to discuss each quote and decide where in the addiction spectrum that quote fits. Students should place the quotes in the order they think is correct on their spectrum or, have groups come up one-by-one to place their quotes on the spectrum on the wall.

Facilitate discussion by walking around the classroom to support groups asking guiding questions and redirecting focus if needed. Some prompts:

- What makes this person seem addicted?
- What sign of dependence do you notice?
- Does this person show symptoms of withdrawal?
- Do they show any signs of needing nicotine to feel normal?

The list of quotes should generally be in the following order from 'not addicted' to 'completely nicotine addicted'. A justification for each placement based on signs of nicotine-dependence is given.

Table 1. Addiction spectrum placements

Placement on spectrum	Quote	Justification for placement on spectrum
Not Addicted	<i>My best friend vapes all the time. I've tried it after she kept offering them to me, but it gives me a headache. I can't bring myself to take another hit.</i>	Shows aversion to vaping and no desire to continue. No signs of dependence.
	<i>My friend offered me a vape today. After I took a few puffs, I started to cough, and my throat and lungs felt really irritated.</i>	First-time or rare use with negative physical reaction. No craving or habit forming.
	<i>I've vaped a few times and I'll probably do it again but only when I'm offered a vape. I would never spend my own money to buy one.</i>	Occasional social use, no signs of craving or withdrawal. Low risk of dependence.
Mildly Addicted	<i>I used to never vape and now I only vape socially. I've noticed I get strong cravings to vape when I'm out with friends lately. It's getting harder to keep from vaping in social settings.</i>	Social use is becoming habitual. Cravings are emerging, indicating early signs of dependence.

Table 1. Addiction spectrum placements

Placement on spectrum	Quote	Justification for placement on spectrum
	<i>My parents would be so angry with me if they knew I was still vaping. I've gotten caught vaping inside my room before and I promised them I wouldn't do it again, but I can't keep myself from doing it.</i>	Shows loss of control and secrecy, suggesting growing dependence.
Moderately Addicted	<i>I don't always enjoy vaping. I've actually tried to quit a few times but gave up because it was too hard.</i>	Attempts to quit and difficulty doing so indicate moderate addiction.
	<i>My friends say that I'm not like myself lately. They say that I get grumpy and moody when I go too long without hitting my vape.</i>	Withdrawal symptoms are present, showing physical and emotional dependence.
	<i>I feel like I'm really hooked on my vape. It's more than just a habit at this point.</i>	Self-awareness of addiction and loss of control over use.
Completely Addicted	<i>I always have to think about how I'm going to fit in my next hit from my vape. I get nervous when I'm somewhere that I can't have it.</i>	Constant preoccupation and anxiety about access to nicotine—strong dependence.
	<i>Even when I'm doing things I enjoy I can't stop thinking about vaping. If I go too long without a vape the cravings get so strong it's hard to think about anything else.</i>	Vaping dominates thoughts and interferes with daily life—clear sign of addiction.
	<i>When I first started vaping I only did it occasionally with friends after school. But now I find it impossible to keep myself from vaping, even where I am not allowed to, like school.</i>	Escalation from casual use to compulsive behaviour, even in restricted areas.

Table 1. Addiction spectrum placements

Placement on spectrum	Quote	Justification for placement on spectrum
	<i>I spend so much on vapes it's ridiculous. There have even been a few times when I couldn't buy what I wanted to eat.</i>	Financial sacrifice for nicotine shows deep addiction and prioritisation of vaping over basic needs.

Use these talking points after the activity
Ask

- What do you notice about the quotes that you arranged?
- Is there an obvious point at which an individual goes from being “not addicted” to “addicted”?

Explain

- The development of addiction is not always obvious. And although these quotes do show varying levels of nicotine dependence, there actually isn't one correct way to arrange them.

Ask

- Why do you think there isn't a correct order to these quotes?

Explain

- Addictions develop differently for different people, there isn't one exact way it happens.

Nicotine products and the rest of the body (Slides 12-22, 15 minutes)

Summary of learning: Vapes and other nicotine products contain harmful chemicals that can damage the body. When inhaled, vapes release an aerosol made up of substances like propylene glycol, glycerine, flavourings, and nicotine—many of which are toxic. Flavourings such as cinnamon and menthol can also become harmful when aerosolized. While both vapes and cigarettes contain nicotine, cigarettes are more harmful due to thousands of additional toxic chemicals like tar and carbon monoxide. Vaping can irritate the airways, making breathing difficult and potentially leading to bronchitis, emphysema, and long-term lung damage. It can also weaken the lungs, increasing the risk of serious infections like COVID-19. Over time, vaping can raise the risk of heart attacks and disease.



Extension activity: Think-pair-share

Ask students what problems do they think can come from addictions? This could be a full class discussion or a 'think-pair-share' activity. Some examples they may provide are 'hard to focus while in school; parents and teachers mad and upset; losing friends; dropping grades; feeling lonely, sad, stressed; letting friends down, worse at sports'.