

TEACHING SAFE AND HEALTHY MOBILITY IN SCHOOLS



Recommendations to inform the development of resources for UK schools to teach safe and healthy mobility and raise awareness about the safe systems approach to road safety



The information and recommendations given in this report are based on the results of a consultation exercise carried out by Brake, the road safety charity, to determine how safe and healthy mobility is currently taught in UK schools. It includes the views of educators and educational experts regarding this area of learning.

The consultation took place between November 2019 and September 2020 and was funded by the Department for Transport.

This report was written by educational consultant Joanna Gledhill on behalf of Brake.



Brake is a road safety charity working with communities and organisations across the UK to stop the tragedy of road deaths and injuries, make streets and communities safer for everyone, and support people bereaved and seriously injured on roads.

Find out more at www.brake.org.uk

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FOREWORD

It is with great pleasure that I write the foreword for this report, which acknowledges that one way of reducing the tragic number of deaths and injuries among young road users is through road safety education in schools.

It recognises that although road safety education does not form part of the core curriculum in the UK, a wide range of available resources and road safety educational practices are being delivered, typically under the domain of Personal, Social, Health and Economic Education (PSHE) and/or Citizenship.

Brake's report presents 12 recommendations, accompanied by examples of available resources and further reading, to help educators support children's safe and healthy mobility. These recommendations highlight the importance of flexible educational tools based on clear learning objectives, the need for evidence-based resources that can be easily integrated into a tightly packed curriculum and the requirement for road safety educational materials to be engaging,

developmentally appropriate and differentiable in order to meet the needs of all children. The report also emphasises the importance of collaboration between educational leaders, teachers, children, parents and road safety experts.

Crossing a road is a complex task that draws on a range of perceptual-motor and cognitive skills that change with age. I believe that a whole systems approach is needed to reduce the devastating effects of preventable road traffic collisions, but upskilling children in safe and healthy mobility that translates to behaviour is achievable and should be a priority for all of us. This report provides a comprehensive, clearly laid out set of recommendations and resources to help facilitate this.



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“Upskilling children in safe and healthy mobility that translates to behaviour is achievable and should be a priority for all of us.”

INTRODUCTION

Why is it important for schools to teach children and young people about safe and healthy mobility?

- Road crashes are the leading cause of death for children and young people worldwide
- More than six children are killed or seriously injured on roads every day in the UK
- Road crashes have a devastating effect on families and communities
- Pollution from traffic causes respiratory illnesses and other diseases
- Active travel such as walking and cycling is good for the nation's health and good for the planet
- Road crashes cost the UK economy around £36 billion every year

More than 1.3 million people die on the world's roads every year and road crashes are the leading cause of death for children and young people aged 5-29 years.¹

In the UK, on average, someone is killed or seriously injured on a road every 20 minutes. Children are especially vulnerable on roads, with more than six children under the age of 15 killed or seriously injured on a road in the UK every day.

Young people aged 17-24 are also over-represented in road crash statistics – although they make up only 7% of licence holders, they represent more than 20% of drivers killed or seriously injured in car crashes.²

Road crashes are tragic events, and death and life-changing injuries have a devastating effect on families and communities. As well as the immeasurable cost of the misery inflicted on those injured and bereaved, the



economic cost of reported and unreported road crashes is also immense, and estimated to be in the region of £36 billion per year.³

Meanwhile, exposure to air pollution, including traffic emissions, is seriously damaging the nation's health, and is linked to cardiovascular and respiratory disease, cancer and reduced life expectancy. We are also facing an obesity crisis, with physical inactivity identified as one of the main risk factors.⁴

The good news is that death and serious injury from road collisions and pollution are preventable, if people who design, build and use roads all share responsibility for road safety.

This is known as the 'safe systems' approach to road safety (see Figure 1).^{5,6}

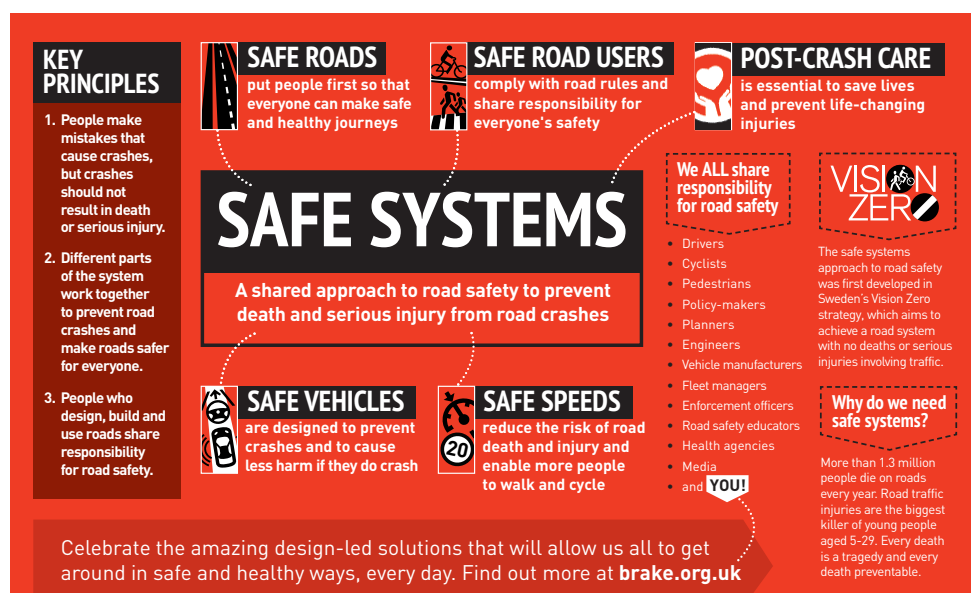


Figure 1: The safe systems approach to road safety

What are schools currently required to teach?

At the time of writing (July 2020), there is no UK-wide, statutory curriculum guidance for educators regarding the teaching of road safety and/or safe and healthy mobility.

Each of the four UK nations follows different national curricula, from which schools are encouraged to develop their own, school-based curriculum (see page 34).

Private schools, academies and free schools have more flexibility about what they choose to cover, within a broad and balanced curriculum, that includes English, Mathematics, Science and Religious Education.⁷

In February 2020, the UK government announced⁸ that from September 2020 health education would be compulsory for pupils of all ages in England, although there is no specific requirement to teach topics relating directly to safe and healthy mobility.

However, in response to a question asked in Parliament about educating young people on road safety, the Education Minister Nick Gibb PM responded that schools were free to teach road safety as part of a broad and balanced curriculum, using resources provided by different providers.

Local authorities have a statutory duty under section 39 of the 1988 Road Traffic Act, to “take steps both to reduce and prevent accidents”,¹⁰ and within this they may provide services that support education within schools.

Some countries in Europe have, on multiple occasions, committed to providing traffic safety and mobility education,¹¹ in line with the United Nations Sustainable Development Goals¹² and the Valetta Declaration on Road Safety.¹³

For more information about some of the different ways in which road safety and safe and healthy mobility are currently taught in UK schools, see page 6.



“ Schools are free to cover teaching about road safety as part of their duty to provide a broad and balanced curriculum, including through their Personal, Social, Health and Economic (PSHE) education provision. Schools can draw on resources available from many providers including, in relation to road safety, the THINK! Campaign developed by the Department for Transport (DfT). ”

Nick Gibb, Minister of State for School Standards⁹

PROJECT OVERVIEW: TEACHING SAFE AND HEALTHY MOBILITY

A project to:

- **determine how safe and healthy mobility is currently taught in UK schools;**
- **consider the views of educators and educational experts regarding this area of learning; and**
- **provide recommendations to inform the development of resources for UK schools to teach safe and healthy mobility and raise awareness about the safe systems approach to road safety.**

In 2019, Brake was awarded funding from the Department for Transport¹⁴ to “develop an educational resource to inform the effective teaching of safe and healthy mobility in schools”.

Project objectives

1. To inform and enable Brake and other road safety practitioners to develop educational resources to raise awareness and promote the effective teaching and learning of safe and healthy mobility in schools, while also meeting curriculum learning objectives.
2. To recommend what format such resources should take, how they should be delivered in schools, and how they will complement existing resources (such as those provided by Think!).

Project delivery

The project took place between November 2019 and July 2020. An educational consultant was employed to run the project in conjunction with Brake staff who have experience of engaging with the education sector and providing road safety resources to schools.

Methodology

Focus groups

Four focus groups were set up:

Group 1: Nine primary school teachers including teachers of EYFS, KS1 and KS2.

Group 2: Four secondary school teachers including a head of humanities and teachers of KS3, KS4 and KS5.

Group 3: Five educational consultants with 124 years of combined experience working in education and 40 years of combined headship experience.

Group 4: Seven educational experts including university research academics, educational authors and educational business owners.

Face-to-face meetings and telephone interviews took place with these groups between February and April 2020.

A summary of focus group contributions is given in Appendix 8.

Survey

Brake carried out a survey of educators to determine how safe and healthy mobility is currently taught. The survey was completed by 101 educators.

For a full report of Brake's survey of educators, see Appendix 7.

Reviews

In-depth reviews of the following were carried out:

- How road safety is currently taught in schools (see page 6)
- Existing road safety teaching guidance and resources (see page 32)
- How road safety fits within the curricula of the four UK nations (see page 34)
- Best practice evidence-based teaching and learning theory (see page 20)
- Virtual learning environments (see page 29)

Impact of the COVID-19 pandemic

The COVID-19 pandemic hit the UK during the lifespan of this project, meaning all UK schools were closed and government guidelines for social distancing restricted face-to-face meetings. Fortunately we had already been able to hold face-to-face meetings with focus groups before schools closed and in general individuals were willing to take part in phone calls and virtual meetings after lockdown restrictions were imposed.

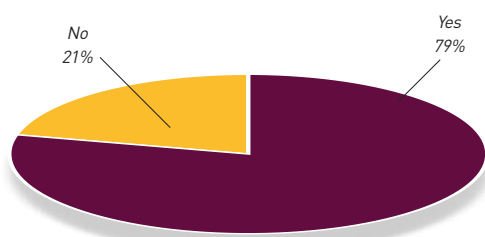
HOW ARE ROAD SAFETY AND SAFE AND HEALTHY MOBILITY CURRENTLY TAUGHT IN SCHOOLS?

Although there is no statutory requirement for UK schools to teach road safety, many schools still take part in initiatives that raise awareness of road dangers, promote safe and healthy mobility and encourage children and young people to choose active travel, to benefit their own health and the health of the planet.

Brake surveyed 101 educators and asked whether they currently teach pupils about road safety and making healthy mobility choices (e.g. walking and cycling). Around four-fifths (79%) of educators who responded told us that they currently teach pupils about road safety and making healthy mobility choices, while one-fifth (21%) said they do not.

According to the educators who completed the survey, the biggest single barrier to teaching road safety and healthy mobility is that it is not part of the curriculum (40%). Other reasons given for not teaching road safety were a lack of resources (25%); having no-one qualified to teach the subject (20%); no budget (15%); and road safety and healthy mobility not being relevant (10%).

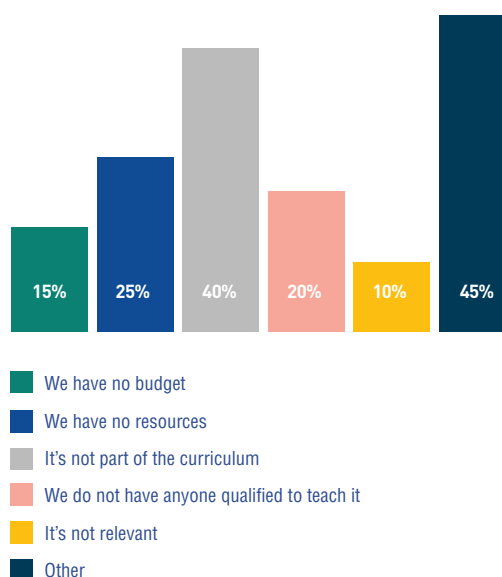
Do you currently teach pupils about road safety and making healthy mobility choices (e.g. walking and cycling) at your school?



“PSHE provides an opportunity to provide or enhance skills such as perseverance, conflict resolution, emotional intelligence, self-management, self-respect, team work, locus of control, time and stress management.”

UK Government ¹⁵

Which of the following prevent you from teaching road safety and healthy mobility? (please tick all that apply)

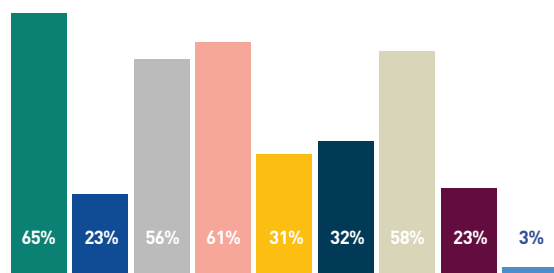


Within the curricula of England, Wales, Scotland and Northern Ireland, road safety and safe and healthy mobility are most commonly taught under the domain of Personal, Social, Health and Economic Education (PSHE) and/or Citizenship, however it is not statutory.



This was confirmed by our survey of educators, where 65% of respondents told us that pupils at their school currently learn about road safety and healthy mobility through PSHE lessons. Assemblies, workshops and visits from emergency services are also commonly used to raise awareness of the subject.

In what ways do pupils at your school currently learn about road safety and healthy mobility? (Please tick all that apply)



- PSHE lessons focusing on road safety or healthy mobility choices
- Other lessons, e.g. road safety included as a curriculum topic
- Assemblies
- Road safety workshops, e.g. cycle training
- Road safety days, e.g. Beep Beep! Days or equivalent
- Road Safety Week
- Road safety visitors, e.g. emergency services
- Extra-curricular projects, e.g. CCF, Duke of Edinburgh, National Citizenship Service, after-school clubs
- Parent workshops

For a full report of Brake's survey of educators, see Appendix 7.

Other ways schools teach pupils about road safety and safe and healthy mobility

Many schools collaborate with external organisations or engage in external initiatives to teach road safety and safe and healthy mobility within the school learning environment.

School travel plans

Many local authorities encourage and support schools in developing and implementing a school travel plan which aims to:

- Reduce traffic congestion around schools
- Increase personal safety of pupils and parents on the way to and from school
- Offer children and parents an alternative choice of travel mode
- Reduce the risk of being injured in a crash
- Improve health and fitness
- Meet school pupils' needs by identifying problems they face on the school journey
- Develop pupil independence and confidence
- Reduce the vicious circle of school travel (i.e. Parents fear danger from traffic – parents drive children/pupils to school – traffic increases – parents fear danger from traffic).

Road Safety Week

Road Safety Week is a week-long road safety campaign, coordinated annually by Brake. It takes place in the third week of November.

Every year, thousands of educators, community groups, companies and road safety professionals register to take part. Schools that register are provided with a free online 'action pack' of resources to help them run activities during Road Safety Week. Nurseries and early years providers are encouraged to run a 'Beep Beep! Day' during Road Safety Week (see next page).¹⁶



www.brake.org.uk/road-safety-week



Beep Beep! Days

Beep Beep! Days engage very young children (ages 2–7) with road safety basics, while raising awareness among parents and the wider community about protecting children on roads. Beep Beep! Days are coordinated by Brake with support from Aardman and Timmy Time. Brake provides a free ‘action pack’ of resources that enable schools, nurseries, playgroups or childminders to take part in fun road safety activities.



www.brake.org.uk/beep

Brake's Kids Walk

Brake's Kids Walk is a short, supervised walk, involving thousands of children walking at the same time to promote important road safety messages. Children walk in pairs in crocodile formation, while holding hands, to emphasise the importance of being able to walk without fear or threat from traffic. Brake's Kids Walk inspires and engages children about the dangers they face and raises awareness among parents and the wider community about the need to protect children on roads.



www.brake.org.uk/kidswalk



Youth for Brake

A pilot schools project coordinated by Brake. Youth for Brake enables young people to lead campaigns and engage with their peers about road safety.



www.brake.org.uk/youth-for-brake

Modeshift STARS

Modeshift STARS Education scheme, supported by the Department for Transport, is an accredited scheme that recognises schools and other educational establishments that have shown excellence in promoting cycling, walking and other forms of sustainable and active travel. The scheme supports educational establishments to develop effective travel plans using an online toolkit. Since its launch in 2008, 1,400 schools in England have achieved accreditation.¹⁷



www.modeshiftstars.org

Walk to School Week/ Walk to School Month

The Walk to School campaign coordinates National Walk to School Week, at the end of May, and International Walk to School Month (October) in the UK. It is run by the charity Living Streets which provides schools with online resources. Each year, around two million primary school pupils take part.¹⁸ Some schools also provide Walking Buses throughout the year.¹⁹



www.livingstreets.org.uk/walk-with-us/walk-to-school

Kerbcraft

Kerbcraft teaches children how to be safer pedestrians by taking them onto roads and showing them how to make the right decisions to keep safe. It is promoted in all 22 local authorities in Wales through funding from the Welsh government. Findings from a Kerbcraft National Pilot project that ran between 2002 and 2007, involving 115 Kerbcraft schemes, confirmed the positive effects of this roadside training on children's judgements and behaviour. There were also community benefits including an increase in self-confidence and self-esteem for community volunteers and development of positive parent-school relationships.²⁰



www.roadsafetywales.org.uk/child-pedestrian-training

Junior road safety officer schemes

The popular junior road safety officer (JRSO) scheme sees schools appoint children aged 9–11 as JSROs to deliver important road safety messages to the entire school community in fun and innovative ways. JSROs deliver class talks or school assemblies, write articles for school newsletters and run road safety-themed competitions throughout the school year. Some schemes are funded by local authorities. In Scotland, 75% of schools have signed up to the JRSO scheme.²¹

Cycle training

Training helps give children the skills and confidence they need to prepare them for cycling safely on the roads. Organisations like Bikeability,²² Cycling Scotland,²³ Cycle Training Wales²⁴ and the Cycling Proficiency Scheme in Northern Ireland²⁵ run training sessions for all ages and abilities, and cover topics from balance and control to planning independent journeys on busier roads. Schools can arrange for professional trainers to deliver courses with their pupils. UK schools can take part in cycle training schemes run by their local authorities.

Police partnerships with schools

The National Police Chiefs Council (NPCC) and the PSHE Association have worked together to create 'Police in the Classroom' – a guide for educators, where police officers can support teachers in delivering a range of topics in PSHE lessons, including road safety.²⁶

The Daily Mile

The Daily Mile aims to improve the physical, social, emotional and mental health and wellbeing of children – regardless of age, ability or personal circumstances. The scheme encourages children to get out of the classroom for 15 minutes every day to run or jog with their classmates. Since it was founded in 2012, 11,251 schools have joined in 78 countries, with more than 2.3 million children now running a mile a day. The UK currently has 5,878 schools taking part in the scheme.²⁷



thedailymile.co.uk



Transport for London

Transport for London (TfL) offers a variety of free educational programmes²⁸ to schools in London to engage young people with, and educate them about road safety and safe and healthy mobility, including:



- Children's Traffic Club London – a free education programme covering road safety, walking, scooting and cycling for pre-school-aged children, their parents and carers.
- Walk about, Talk about – multimedia resources showing ways pedestrians can stay safer on London's roads and how parents/carers can be good role models.
- Just a journey – resources for children aged 7–11, and their teachers, to encourage safer attitudes and behaviours at a time when children are becoming more independent road users.
- Junior Travel Ambassadors scheme – a peer-to-peer engagement scheme for pupils in year 6 to promote safer, active and independent travel within the school community.
- Youth Travel Ambassadors programme – providing young people aged 11 to 19 with the skills and confidence to address transport issues affecting their school community.

Crucial Crew

Many schools take part in 'Crucial Crew' activities – a multi-agency event organised through schools and in conjunction with the police, ambulance and fire services and other organisations – to raise awareness of safety issues with children in year 6 (aged 10–11). Crucial Crew events present 20-minute interactive scenarios covering a wide range of topics, including road safety.²⁹

SUMMARY OF RECOMMENDATIONS

Recommendations to inform the development of resources for UK schools to teach safe and healthy mobility and raise awareness about the safe systems approach to road safety

1. Resources must flexibly complement the different curriculum requirements for England, Wales, Scotland and Northern Ireland
2. Resources should be based on clear learning objectives laid out in a detailed progression map
3. Resources should be tested in schools before publication and evaluated against SMART targets to ensure they meet their aims and objectives
4. Resources should be designed to be easily incorporated into a tightly packed curriculum
5. Resources should be flexible enough to allow schools to teach safe and healthy mobility EITHER in a cross-curricular way OR through stand-alone lessons
6. Resources should include a wide variety of formats
7. Resources should be age appropriate and highly engaging to children
8. Resources should follow pedagogical theory and evidence-based best practice for teaching and learning
9. Resources should recognise and reflect the needs of pupils with Special Educational Needs and Disabilities (SEND)
10. Resources should include a range of geographical settings so that they are relevant to schools in both rural and urban locations
11. Resources should be developed using a collaborative approach that may involve educational leaders, teachers, children, parents and road safety experts
12. Resources should be compatible with the digital learning platforms most commonly used in schools



RECOMMENDATIONS

1 Resources must flexibly complement the different curriculum requirements for England, Wales, Scotland and Northern Ireland

Currently there is no UK-wide, statutory, curriculum guidance for educators for the teaching and learning of road safety and/or safe and healthy mobility.

Each of the four UK nations (England, Wales, Scotland and Northern Ireland) follows different national curricula (Wales follows the same curriculum as England after KS2), from which schools are encouraged to develop their own unique, school-based, broad and balanced curriculum, taking into account their locality, student intake and individual circumstances.

See Appendix 1 for the different terminology used for age groups within primary and secondary schools in England, Wales, Scotland and Northern Ireland.

Private schools in the UK are not required to follow their countries' national curricula, and academies and free schools in England, are not required to follow England's National Curriculum – so have more flexibility about what they choose to cover. However, they do have to teach a broad and balanced curriculum, including English, Mathematics, Science and Religious Education.³⁰

Across the four nations, road safety and/or safe and healthy mobility is usually taught within PSHE or Citizenship under broad headings such as 'staying safe', 'making healthy life choices and decisions' and 'making a positive contribution to society through being an active citizen'. Where guidance does exist, it is minimal and broad, and schools have a huge amount of freedom as to how to interpret that guidance and when to teach the topics suggested.

It therefore seems highly probable that the way in which road safety and safe and healthy mobility is taught varies widely across the UK – in terms of frequency, methodology, quality and effectiveness.

Governmental transport departments provide the following road safety information and resources for educators:

England

- <https://www.think.gov.uk/education-resources/>

Wales

- <https://www.roadsafetywales.org.uk/education/>
- <https://www.roadsafetywales.org.uk/resources/>
- <https://www.rosipa.com/About/Around-the-UK/Wales/Road-Safety/>

Scotland

- <https://roadsafety.scot/resources/curriculum-for-excellence-2019-20/>
- <https://roadsafety.scot/learning>
- <https://roadsafety.scot/learning/additional-support-needs/>

Northern Ireland

- <https://www.nidirect.gov.uk/information-and-services/road-safety/road-safety-education-resources>

See Appendix 2 for other commonly used websites providing information and resources for educators.

See Appendix 3 for more information about how road safety and safe and healthy mobility fits within each nation's curriculum.

Additional recommendations

- Further, more extensive research into the frequency, methodology, quality and effectiveness of road safety teaching in schools should be undertaken.
- New resources for educators should take into account the variations, current guidance, and stages of review and development of the different curricula of the four nations.
- New resources for educators should complement and not duplicate resources that are currently available to educators in each nation and links to these and related resources should be provided.



RECOMMENDATIONS

2 Resources should be based on clear learning objectives laid out in a progression map

Focus group participants were unanimously in favour of a progression map that shows learning objectives for different age groups.

Learning objectives should be clear and precise and focus on knowledge and understanding, skills, and behaviour and attitudes, not the context or activity through which they will be taught or learned.

For example:

 Correct learning objective	 Incorrect learning objective
<p>I know the dangers of crossing the road near parked cars.</p> <p><i>(The focus is on the learning and not the context)</i></p>	<p>I can take part in a campaign to stop parents parking on the zigs-zags outside my school.</p> <p><i>(The focus is on the context/activity/delivery)</i></p>

Learning objectives should remain flexible enough to complement or be integrated into different curricula.

These objectives should systematically and progressively build upon learning across the different stages of education. They should also take into account the evidence-based development of children's physical and psychological skills, dependent on their age and other influencing factors such as social background.

For example, in relation to road safety and safe and healthy mobility, learning objectives would take into account factors such as:

- Younger children find it more difficult to judge the speed of an approaching vehicle.³¹
- Children aged 8–14 are easily distracted and therefore are at higher risk around traffic.³²
- Teenagers tend to display more risky behaviour as road users than adults because of factors such as failure to perceive danger, impulsiveness or social background.³³

Once created, the progression map of learning objectives should link to a library of teaching resources or teachers could develop their own lessons based on the objectives.



RECOMMENDATIONS 2 (contd.)

Two progression map models were suggested (see models A and B). Focus group participants felt that model A would be effective for systematically building on the different aspects of the safe systems approach to road safety, whereas model B would be less restrictive and provide more flexibility.

Progression map model A

This model could support development of six lessons per age-phase, for example, one lesson for each aspect of the safe systems approach to road safety.

Concept	Objective type	EYFS	KS1	KS2	KS3	KS4	KS5
Overview of safe systems	Knowledge (K) Understanding (U) Skills (S) Behaviour (B) Attitudes (A)						
Safe roads	Knowledge (K) Understanding (U) Skills (S) Behaviour (B) Attitudes (A)						
Safe speeds	Knowledge (K) Understanding (U) Skills (S) Behaviour (B) Attitudes (A)						
Safe vehicles	Knowledge (K) Understanding (U) Skills (S) Behaviour (B) Attitudes (A)						
Safe road use	Knowledge (K) Understanding (U) Skills (S) Behaviour (B) Attitudes (A)						
Post crash care	Knowledge (K) Understanding (U) Skills (S) Behaviour (B) Attitudes (A)						

Progression map model B

This model supports a more fluid approach to learning about safe systems with no restriction of having one lesson per aspect of safe systems

Concept	Objective type	EYFS	KS1	KS2	KS3	KS4	KS5
The safe systems approach to safe and healthy mobility	Knowledge and understanding						
	Skills						
	Behaviour and attitudes						

RECOMMENDATIONS

3 Resources should be tested in schools before publication and evaluated against SMART goals to ensure they meet their stated aims and objectives

Testing

Testing in schools is critical to ensure that resources are engaging and can be delivered by teachers as described. Testing is also vital to ensure that resources meet their stated aims and objectives, whether that be knowledge gain; changing behaviours so that children and young people reduce their risk of being hurt on a road; encouraging children to become advocates for road safety; or engaging parents with local road safety issues.

Evaluation

Evaluation provides valuable insight into whether teaching resources have met their stated objectives. It's important to set goals that are SMART (Specific, Measurable, Achievable, Relevant and Time-based) for resources, and to evaluate both pupil and teachers' perceptions of knowledge gain and engagement, and, where possible, attempt to assess longer-term outcomes.³⁴

“If you aim to increase children's road safety knowledge using a classroom-based pedestrian training course, your evaluation should measure their knowledge, not the number of attendees or how much they enjoyed the session.”

RAC Foundation³⁵

Running small-scale 'before-and-after' questionnaires can be an effective way of evaluating a specific activity. To do this, you will need to compile a set of questions to ask participants before and after each activity. These questions should relate to the subject being taught and to the specific activity. For example, to evaluate whether a film has raised awareness of the dangers of speeding traffic in communities, questionnaires could test pupils' knowledge about facts given in the film, such as facts about speed limits and stopping distances, or how many people are killed or hurt on roads each year.

Where the intended aim is behavioural change, a rigorous period of trialling, testing and evaluation under controlled conditions is required to ensure that resources 'do no harm' and 'don't make matters worse' – for example, teaching young drivers to be more confident could make them more likely to take risks and increase their risk of being involved in a serious crash.

Brake has identified the following **outcome goals** for its own education projects. These goals are easier to evaluate against than attitudinal or behavioural change.

- **Awareness-raising through knowledge gain** of issues relating to safe and healthy mobility, and recognition that these are important causes.
- **A deepened understanding of the challenges of changing human behaviour**, and a heightened consciousness of the personal choices we make in the way we move.
- **A deepened understanding of emotions and their impact on people**. This could be related to the enormity of the effects of being bereaved or suffering a life-changing injury due to a road crash.
- **A deepened understanding of why there are governmental or organisational policies** and procedures relating to road use, particularly for drivers, for example speed control.
- **Engagement in activities that result in wider dissemination of knowledge gain**.
- **Engagement in campaigns for change** (through local campaigning for safer streets or support for national campaigns).
- **Engagement in supporting the cause of safe and healthy mobility** in other ways, for example by fundraising for a charity.
- **Developing life skills relevant to campaigning or communication**.
- **Meeting unrelated curriculum or learning goals** in a wide range of subject areas inclusive of mathematics and English.
- **Supporting wider initiatives**, for example, if working in a school, efforts to be a Health Promoting School in line with United Nations recommendations.

Further reading:

- Using behaviour change techniques: Guidance for the road safety community (2017) RAC Foundation
- Effectiveness of UK road safety behaviour change interventions (2019) RAC Foundation
- Inspire, Inform, Engage (2017) Brake
- Road Safety Evaluation toolkit. RoSPA

RECOMMENDATIONS

4 Resources should be designed to be easily incorporated into a tightly packed curriculum

In our survey of educators, 96% of respondents told us they thought that teaching children about road safety and healthy mobility choices should be a statutory requirement in the UK. When asked to explain their answer, respondents said that road safety is a life skill that all children need, and that more young people die on roads than from other causes (such as alcohol) which are taught within the curriculum.

The majority (92%) of focus group participants agreed that road safety should be mandatory and taught as an essential life skill, because children and young people are at such high risk from death or serious injury on UK roads.

Survey respondents and focus group participants both recognised that, regardless of whether or not teaching of road safety eventually becomes a statutory requirement, the challenge is how to incorporate it within curricula and school timetables that are already tightly packed.

“There are indications that humanities subjects have been reduced or squeezed out of the primary curriculum.”

OFSTED (2019)³⁷

In our survey of educators, the majority of respondents said they only spend a small amount of time teaching pupils about road safety and healthy mobility, with 70% telling us that pupils learn for between one and 10 hours per year.

For a full report of Brake's survey of educators, see Appendix 7.

Curriculum squeeze is well-documented,³⁶ and all focus group participants agreed that humanities and other non-core subjects have been squeezed out by curriculum overload and the pressures of high-stakes testing.

Within the secondary school focus group, participants said that road safety was not generally taught beyond KS3 due to the pressures from GCSEs and A-levels. There was also a general feeling that secondary school colleagues considered road safety teaching to be a job for primary schools.

Focus group participants told us that it is already a constant challenge for teachers to cover everything within the curriculum effectively within the time available. Any additional requirement to teach safe and healthy mobility *beyond current road safety teaching* would require additional space to be found within the school curriculum and timetable.

A summary of focus group contributions is given in Appendix 8.



RECOMMENDATIONS

5 Resources should be flexible enough to allow schools to teach safe and healthy mobility EITHER in a cross-curricular way OR through stand-alone lessons

Focus group participants agreed that road safety and safe and healthy mobility are important topics, which, in an ideal world, should be:

- integrated within the curriculum;
- carefully, systematically and progressively mapped out;
- planned for; and
- taught through or linked to other curriculum subjects.

They also felt that unless there is a change in government policy to make the teaching of safe and healthy mobility a statutory requirement, school leaders are unlikely to consider it enough of a priority to integrate it into their schools' curriculum.

The focus groups all agreed that incorporating road safety lessons into the curriculum would increase the perceived value of the subject, making it appear less of an 'add on' topic. They were also in favour of having the flexibility to teach stand-alone, focused road safety lessons.

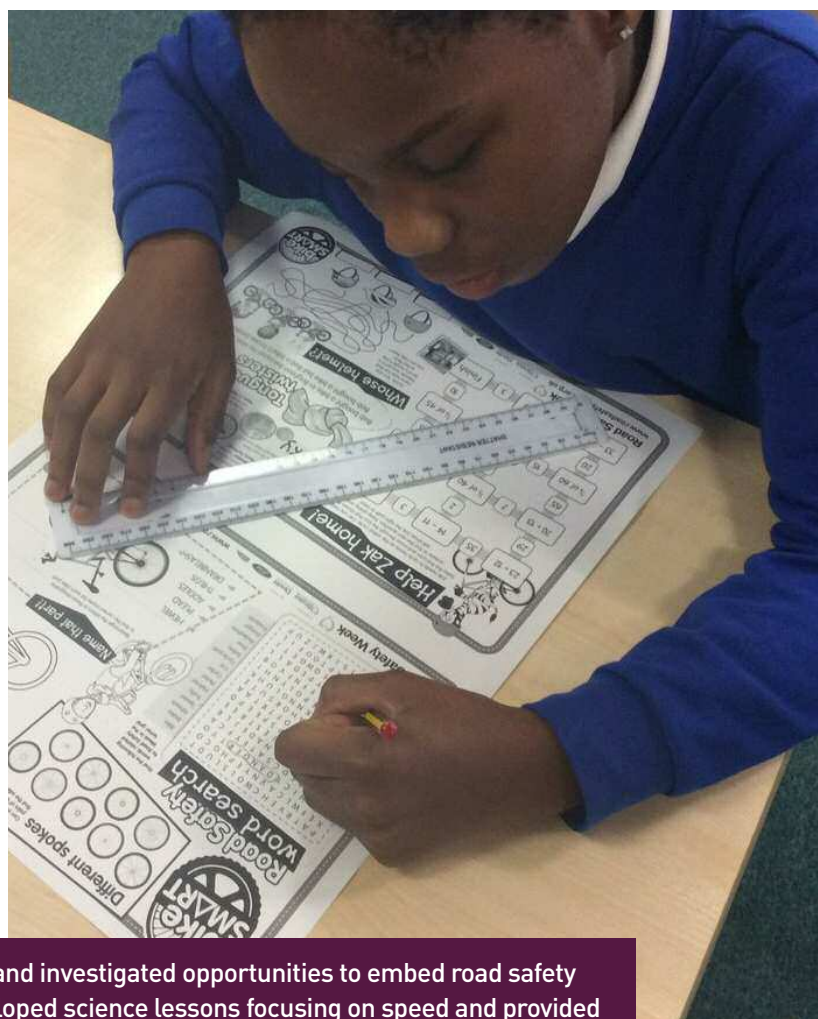
This idea of a flexible approach to teaching safe and healthy mobility is mentioned in the European Transport Safety Council's 2020 publication *Key Principles for Traffic Safety and Mobility Education*,³⁸ which recommends that lessons on traffic safety and sustainable mobility should either be integrated into other subjects or taught as a separate and dedicated subject. The publication makes reference to best practice examples across Europe, including how cross-curricular learning has been successful in some schools in Scotland (see case study below).

The benefits of cross-curricular learning are well documented and include:

- improving students' comprehension of problems, recognition of 'thinking skills' tasks and ability to pose multiple responses to problem stimuli;⁴⁰ and
- strengthening 'left brain-right brain' connections, leading to enhanced problem-solving abilities, which in turn strengthens the sense of achievement that students feel at the completion of a learning activity.⁴¹

In our survey of educators, just under one-fifth (19%) of respondents said they would be most likely to use a cross-curricular guide on integrating safe and healthy mobility into other lessons.

For a full report of Brake's survey of educators, see Appendix 7.



CASE STUDY

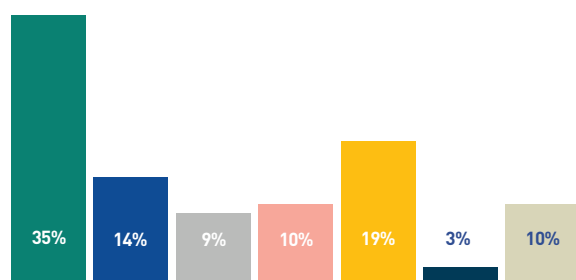
Working with curriculum specialists, Road Safety Scotland investigated opportunities to embed road safety within traditional subjects in the curriculum. They developed science lessons focusing on speed and provided reaction timers for local road safety teams to use in schools. Road Safety Scotland also developed a physics experiment kit (also speed related, with schools able to borrow any equipment they needed) as well as a module for the Media Studies Higher Qualification (for 16-18 year olds).^{39,39a}

RECOMMENDATIONS

6 Resources should include a wide variety of formats

We asked educators to tell us what type of resources they would prefer, giving them a range of options or an opportunity to suggest alternatives. The most popular format for new resources was a series of six, 30-minute lessons about the safe systems approach to road safety for each year group. This option was selected by more than a third (35%) of survey respondents.

If new educational resources about the safe systems approach to road safety were to be developed, given your curriculum/timetable requirements, which would your school be most likely to use? (Please select just one preference)



- 6 x 30-minute lessons about safe systems approach to road safety per year group
- 6 x one-hour lessons about safe systems approach to road safety per year group
- 6 x 30-minute lessons about safe systems approach to road safety per key stage
- 6 x one-hour lessons about safe systems approach to road safety per key stage
- A cross-curricular guide on how to integrate the safe systems approach to road safety into other lessons
- We would not use new lesson/resources about the safe systems approach to road safety
- My own suggestion (please give details)



The educational consultant focus group recommended taking a three-tiered approach to the creation of new resources:

Phase 1 – Create a series of six 30-minute lessons about safe systems per key stage. Where possible, include cross-curricular links to PSHE/Citizenship and other curriculum subjects. Monitor/evaluate use by educators.

Phase 2 – If there is demand, increase the lesson bank to a set of six 30-minute lessons per year group. Again, include cross-curricular links to other subjects.

During Phases 1 and 2 – campaign for teaching of road safety and safe and healthy mobility to become statutory.

Phase 3 – If and when teaching of road safety and safe and healthy mobility becomes statutory, develop a more cross-curricular, integrated set of guidance/resources aligned to new policy, to be used flexibly alongside the curricula of each of the four UK nations.

Focus groups and survey respondents both said they would like resources to be provided in a variety of formats, in particular lesson plans, Powerpoint presentations and short films. All groups supported teaching resources being made available online, so long as they were easy to find and simple to download.

The Times Education Supplement website (www.tes.com) was cited as a popular website for both primary and secondary focus groups, who told us they liked the ease with which they could find and filter resources.

For a full report of Brake's survey of educators, see Appendix 7.

A summary of focus group contributions is given in Appendix 8.

Additional recommendations:

- Resources for educators should include lesson plans, Powerpoint presentations and short films
- Lesson plans should be simple and uncluttered, using as few words as possible
- Resources should be available online and easy to download

Brake provides lots of resources to teach children and young people about road safety in a fun and engaging way on its website. Go to www.brake.org.uk/teaching-resources and filter by age range, resource type and time available.





RECOMMENDATIONS

7 Resources should be age appropriate and highly engaging to pupils

High quality teaching requires high quality, engaging resources that are aligned to the different stages of child development.

Jean Piaget's theory of cognitive development suggests that children move through four different stages of mental development (see Figure 2).

Figure 2: Jean Piaget's theory of cognitive development.

Stage	Age range	Characteristics
 Sensorimotor	0–2 years	Motor activity without use of symbols. All things learned are based on experience or trial and error.
 Pre-operational	2–7 years	Development of language, memory and imagination. Intelligence is both egocentric and intuitive.
 Concrete operational	7–11 years	More logical and methodical manipulation of symbols. Less egocentric and more aware of the world and outside events.
 Formal operational	Adolescence to adulthood	Use of symbols to relate to abstract concepts. Able to make hypotheses and grasp abstract concepts and relationships.

In a school setting, the youngest children in the early years learn best through activating their five senses and 'doing' – i.e. through high-energy games, songs, colourful images, characters, stories, movement and role play. The use of physical objects and routines is important, as is pointing out new things and encouraging children to ask questions. Children are very egocentric and learning is very much focused around play, including their own interests, likes, dislikes, immediate family, home and school.

As children move through primary school and develop language and memory, activities that tap into their imagination and creativity are effective. Increasingly, questioning may become more open-ended. Activities that allow children to manipulate abstract concepts, e.g. creating timelines, 3D models, quizzes and experiments, are important to develop analytic thinking. Children collaborate well in pairs and groups and enjoy healthy competition.

Teachers in our primary school focus group stressed the importance of making learning fun using creative and imaginative approaches. They made reference to how 'Times Tables Rockstars' (www.ttrockstars.com) has become an incredibly popular resource helping children to learn their times tables (typically a fairly dry subject that many children struggle with), using a novel and competitive approach, with age-appropriate characters that children consider to be 'cool'. As a result, this way of learning times tables is used by over 14,000 schools worldwide.⁴²

Also throughout the primary phase, children begin to understand worlds beyond home and school, and they can relate to their wider locality and other places they experience or learn about. Giving learning a real-life context or outcome, where children can relate to their own community and beyond, is important – children are more likely to be engaged if learning has a purpose.

RECOMMENDATIONS 7 (contd.)

As they progress through secondary school, children become able to explore hypothetical situations and relate them to current events or social issues. Teaching resources should include step-by-step explanations of broader concepts, utilising charts and other visual aids. Their knowledge and understanding of the world is much more wide-ranging now and they are more greatly influenced by their peers and social media. As they get older, their interests become more global. Resources and activities need to reflect this.

“Technology is most effective in supporting learning when it is used in conjunction with other active learning strategies, such as discussions and projects. Children in early years respond well to technologies such as interactive whiteboards and the use of digitally based songs and activities using cartoons and characters. Up to the age of about 8 the most effective way that technology can be used to support learning is through information-based resources related to children’s literacy levels. From around 8–14 years of age, children become more interested in game-based learning. Children in early secondary school are more dependent on push technologies, in other words messages and ideas that are ‘pushed’ out to them, whereas, in the later secondary phase, the use of social media grows rapidly with a lot of young people using push and pull technology, contributing more widely to social interests and concerns.”

Professor Don Passey, Lancaster University - an expert in the field of leading-edge technologies within education

A summary of focus group contributions is given in Appendix 8.

Secondary school focus group participants felt that resources and activities should be purposeful and based on current and real-life issues, particularly those issues prevalent on social media. Where possible, they should encourage young people to make positive contributions as active citizens, getting involved in meaningful and real events or projects.

“The way to engage young people is to begin a conversation about culture. Firstly, we are really careful about how we begin the conversation. A typical 16 year old doesn’t wake up thinking how do I get volunteering into my CV, and more civic action. We do a lot of work around culture, sport, music... Things that young people use to socially interact. We use a lot of influencers. When doing a campaign – we aim for the language to come from the artist/peer rather than the teacher. These are tough hooks to ‘sell’ to young people especially those who haven’t considered volunteering before.... So start with the extrinsic – ‘Come and do this and this and get this extrinsic rewards – this pop concert ticket.’ Once they do – they then get the intrinsic reward. You can hear it in the language of someone who’s gone through that project. That’s the real shift we’re after in terms of behaviour change. They start talking a lot about the extrinsic stuff and then it becomes secondary and much more about the intrinsic stuff.”

Stephen Greene CBE, CEO of Rock Corps, a pro-social production company that uses music to inspire young people to volunteer and get involved in their community

Additional recommendations:

- Teaching resources should take into account age-related digital technology preferences



RECOMMENDATIONS

8 Resources should follow pedagogical theory and evidence-based best practice for teaching and learning

When developing new teaching resources for any subject, consideration should be given to the intended outcome of the teaching and learning process. Teaching resources should follow accepted pedagogical theory and be designed to include and allow for evidence-based best practice of what constitutes effective teaching and learning.

Below are some best practice features of outstanding teaching and learning that are most significant when considering the creation of new resources.

Provide a creative hook at the start of the lesson

In order to create enthusiasm quickly at the beginning of a lesson, a successful strategy is using a 'hook' to spark interest. A hook can be an inspiring, entertaining or thought-provoking image, video clip, music, letter, poem, story, dance, game, etc. The aim is to generate wonder, surprise, fun, curiosity or questions, leaving pupils wanting to continue the learning experience and find out more.

Provide high levels of interactivity throughout

Ideally, the sooner children interact within a lesson the better. Pupils sitting still and simply listening has its place in learning, but concentration levels deteriorate over time. The younger the child, the less time they are able to focus and concentrate.

Typically, children are able to focus on a task for the following lengths of time according to their age:⁴³

- 2 years old: 4–6 minutes
- 4 years old: 8–12 minutes
- 6 years old: 12–18 minutes
- 8 years old: 16–24 minutes
- 10 years old: 20–30 minutes
- 12 years old: 24–36 minutes
- 14 years old: 28–42 minutes
- 16 years old: 32–48 minutes

Keeping the lesson pacy and providing active, collaborative learning, through a combination of listening, discussing, and doing practical tasks, broken down into short chunks of time appropriate to their age, will help to keep children engaged.

Provide a sense of purpose

Children are much more likely to truly engage with learning if it has a purpose, whether it be set in a real-life or imaginative context. For example, pupils are more likely to engage in learning about staying safe as a pedestrian by taking part in a campaign to prevent parents parking on the zig-zags at their own school, rather than watching a film about this. They are more likely to engage with a competition to create a short film about a young person being injured crossing the road while texting, which they write and film themselves, than with reading a story about this scenario and answering a set of questions.

Provide appropriate levels of cognitive load

Cognitive load refers to the amount of information the working memory can hold at any one given time. Most people can handle a cognitive load of between three and seven separate pieces of information. When creating resources, it's important to reduce the materials down to only contain the elements that are required, omitting irrelevant images, distracting sounds or animations. Fonts that are difficult to read and complicated vocabulary also inhibit cognitive load.^{44, 45}

The following principles can help reduce cognitive load:

The Signalling Principle: The signalling principle is important to consider when creating visual resources. It helps children to focus on the information being talked about by highlighting the important details. For example, via arrows or rings around relevant information. This reduces cognitive load by taking the work of scanning this visual away from the working memory.

The Redundancy Principle: Children learn best from images and narration, rather than text and narration. Images (visual) and narration (audio) do not compete with each other, therefore they use less cognitive load. This 'Dual-Coding' theory suggests that images plus a small amount of text and narration (visual and verbal stimuli) are the most efficient way of supporting learning.

RECOMMENDATIONS 8 (contd.)

Spatial Contiguity: This is simply placing labels next to the thing being described, so pupils don't have to waste cognitive load working anything out, making it easier for them to make connections with previously learned information.

Temporal Contiguity: Presenting the visual images and their labels at the same time. By doing this, the working memory knows they should be treated as an individual unit rather than separate entities.⁴⁶

Provide opportunities for metacognition and self-regulated learning

Evidence suggests that the use of 'metacognitive strategies' (high impact, low cost) – i.e. getting pupils to think about their own learning – can be worth the equivalent of an additional 7 months progress when used well. The impact of these approaches is very high, particularly for disadvantaged pupils. The Education Endowment Foundation gives the following recommendations to develop pupils' metacognitive skills and knowledge:⁴⁷

- Activate prior knowledge
- Explicit strategy instruction
- Modelling of learned strategy
- Memorisation of strategy
- Guided practice
- Independent practice
- Structured reflection.

Provide opportunities for meaningful Assessment for Learning (AfL)

Assessment for Learning (AfL)⁴⁸ can be used to support and check pupils' understanding of learning throughout a lesson.

The five main principles of AfL are:

- Learning objectives and success criteria
- Feedback
- Questioning
- Peer assessment
- Self-assessment.

Additional recommendations:

- Teaching resources should be developed with an awareness of Blooms Taxonomy

Blooms Taxonomy has been hailed as an excellent model to support teaching and learning for the last 50 years. Originally developed in 1940 by Benjamin S. Bloom, then adapted by him in 1956, the most up to date and most commonly used version (see Figure 3) was revised in 2001 by a group of cognitive psychologists, curriculum theorists and instructional researchers.^{48a}

Blooms Taxonomy can aid the development of well-considered, progressive programmes of learning, providing opportunities throughout each phase of learning, to develop progressively higher order skills and deeper thinking. It can also be used as a checklist for planning questions and activities.

When learning about a new concept, it is recommended to begin learning using the lower-order skills at the bottom of the pyramid, which require less cognitive processing, but provide an important base for learning. Moving up the pyramid as learning about a concept develops, the higher levels require deeper learning and a greater degree of cognitive processing, which can only be achieved once the lower-order skills have been mastered.

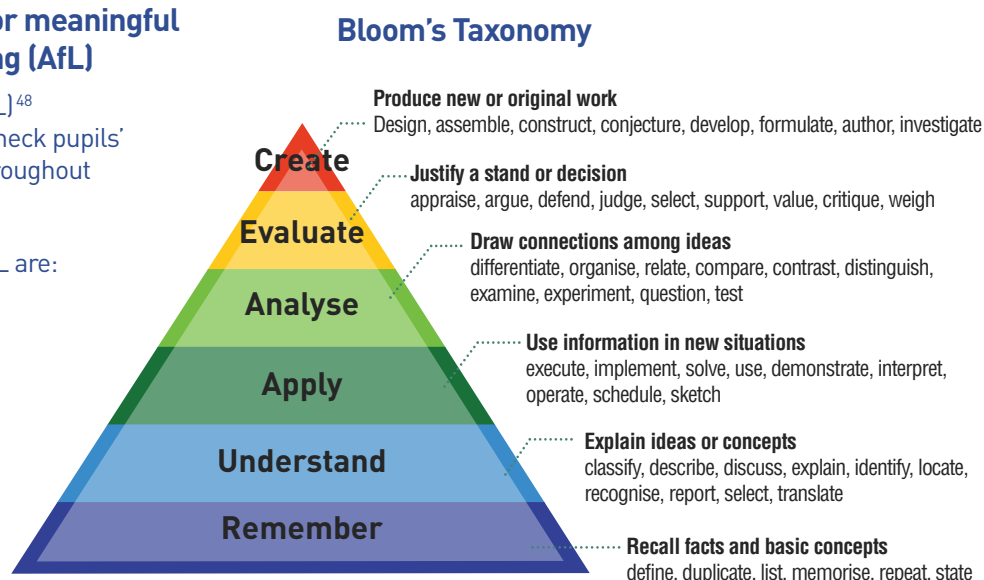


Figure 3: Blooms Taxonomy. Diagram courtesy of Vanderbilt University Center for Teaching

RECOMMENDATIONS 8 (contd.)

The degree of difficulty at each level can be adapted according to the age-group and ability of students, enabling them to access the different levels of taxonomy according to the overall depth of their cognition. 'Creating', for example, is obviously not going to be the same for a five-year-old as it would be for a 16-year-old. Nevertheless, the hierarchy of the different levels of the taxonomy remains the same.

Bloom's Taxonomy is related to Bruner's notion of the spiral curriculum. This idea suggests that students should return to key concepts and ideas at different points on their learning journey, each time meeting them at a more advanced stage of development. At whatever depth of cognition students access their lesson's content, Bloom's Taxonomy can help teachers to ensure that students are challenged.⁴⁹

Further reading

The Learning Scientist provides useful information about six evidence-based strategies for effective learning. Go to www.learningscientists.org.

For some example questions and activities for each level of Blooms Taxonomy see Appendix 4.



RECOMMENDATIONS

9 Resources should recognise and reflect the needs of pupils with Special Educational Needs and Disabilities (SEND)

Road safety teaching resources should be appropriate and effective for pupils of all ages and abilities. A pupil is described as having a Special Educational Need or Disability (SEND) if they:

- have a significantly greater difficulty in learning than the majority of others of the same age; or
- have a disability which prevents or hinders them from making use of educational facilities of a kind generally provided for others of the same age in mainstream schools or mainstream post-16 institutions.⁵⁰

Different types of need include speech, language and communication needs (including autism spectrum disorder); social, emotional and mental health; learning difficulty; physical disability; and sensory impairment (hearing, visual and multi-sensory).

These needs and disabilities affect children's safety on roads in different ways. UK road casualty statistics don't record learning disabilities or difficulties among people injured or killed on roads, so it is difficult to assess the true extent of risk for pupils with SEND.

In January 2019, an estimated 1.7 million pupils in the UK were recorded as SEND or having additional support needs:

- England – 1.3 million pupils in maintained schools recorded as SEND (14.9% of all pupils)⁵¹
- Wales – 103,976 pupils recorded as SEND (22.2% of all pupils)⁵²
- Scotland – 215,897 pupils recorded as having an additional support need (ASN) (30.9% of all pupils)⁵³
- Northern Ireland – 79,000 pupils recorded as SEND (23% of all pupils) (2018 figures)⁵⁴

The variations in percentages between each country are mostly as a result of different thresholds and ways of identifying pupils with SEND. In all nations, SEND is more prevalent in boys than girls.⁵⁵

These statistics broadly correspond to the responses from our focus groups and survey for educators, where the majority of educators said that around a quarter (25%) of pupils required differentiation activities within lessons, for example because they are SEND and/or have an Educational Health Care Plan (EHCP).

Only a small percentage of pupils with SEND attend special schools (broadly around 1% of all pupils and around 10% of pupils with SEND).



“It is essential to always have the end-user in mind when designing new resources. A 15-year-old may have the cognitive age of a 5-year-old. I can't stress enough the importance of the use of imagery and story-telling, and keeping things simple. Social stories, diagrams and signing are often essential features of learning resources, and help make sure that the context is understood.”

Mark Dale Emberton, director of CENMAC and senior SEND representative for the National Association of Headteachers National Executive

RECOMMENDATIONS 9 (contd.)

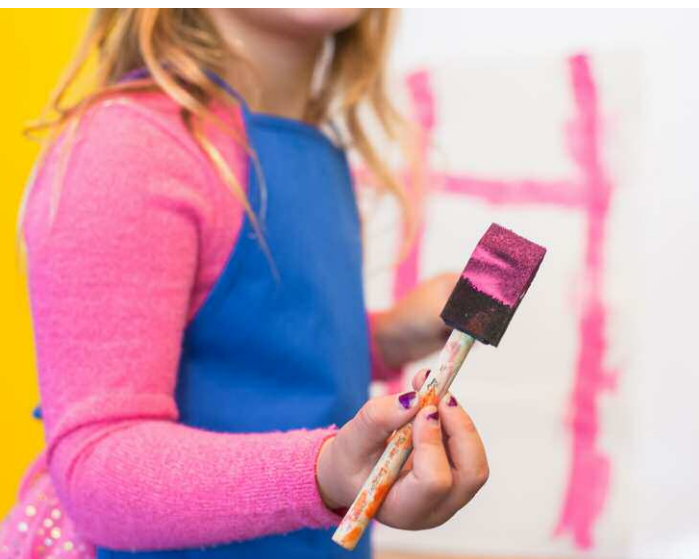
Children recorded as SEND or ASN or having an EHCP may require additional support beyond that provided by the curriculum. This may include:

- adaptation of resources
- small group support led by a teaching assistant
- speech and language interventions
- intensive specialist support
- personalised learning plans
- one-to-one adult support during learning.

The class teacher and learning needs coordinator may receive advice or support from other specialists. It's important to be aware of the common difficulties associated with teaching children with SEND, and strategies for supporting them. Teaching resources that are compatible with these strategies will lead to greater inclusion.

Where children make less than expected progress their needs should be assessed against the following:

- communication and interaction
- cognition and learning
- social, emotional and mental health
- sensory and/or physical needs.⁵⁶



See Appendix 5 for a summary of common speech, communication and learning needs, and strategies for supporting pupils with SEND when teaching road safety.

To find out more about how children with different types of SEND are affected by road danger, and different ways to teach road safety to them, go to www.brake.org.uk/teaching-road-safety.

Additional recommendations:

- Further consultation should be undertaken with special schools to find out what resources for teaching road safety and safe and healthy mobility would best support children with the most severe learning difficulties.
- New resources should include suggestions for differentiation to support less able pupils and challenge more able pupils.

Most teachers in mainstream schools are skilled in taking a learning objective or a lesson plan, and adapting a lesson or activities (differentiation) in order to ensure that pupils who are working below age-related expectations can access learning. Similarly differentiation should include the adaptation of a lesson or activities to ensure that more able pupils are suitably challenged.

Differentiation is an important element in ensuring all pupils make good progress during lessons. Educational author, Carol Ann Tomlinson defines differentiation as 'adapting content, process, or product according to a specific student's readiness, interest, and learning profile.'⁵⁷ There are many differentiation strategies that can support children to access learning, both in the delivery/input of teaching and also through the careful consideration during creation and adaptation of resources.

See Appendix 5 for more information and ideas for differentiation activities and further reading.

CASE STUDY

CENMAC

CENMAC is a London-based support service offering assessments, reviews and loans of equipment to help pupils with a disability access the curriculum through assistive technology. CENMAC is based at Charlton Park Special School in London, and eight local authorities currently subscribe to its services.

To find out more, go to cenmac.com.

RECOMMENDATIONS

10 Resources should include a range of geographical settings so that they are relevant to schools in both rural and urban locations

To make safe and healthy journeys, we all need safe places to walk and cycle away from traffic, safe places to cross roads, slow traffic and clean air to breathe. However, what safe and healthy mobility means for any individual can vary greatly with locality, and schools in rural settings often have to deal with very different issues from those in urban settings. For example, in developing the knowledge, understanding and skills for riding a bike safely there are a set of common principles; however, there are different factors to consider if cycling on a country road compared with cycling in a town.

New teaching resources should be designed to take into account the needs of schools and pupils in a wide variety of geographical settings. Any deviation from this should be clearly indicated.

Additional recommendations:

- Resources should take into consideration the Geography programmes of study across each phase of learning

Resources for teaching road safety and safe and healthy mobility should broadly mirror the learning journey throughout Geography curricula where possible. For example, a child's early learning about 'Place' begins focusing on their immediate locality around school and home. As children progress through primary school they broaden their knowledge and understanding of Place to areas within the UK and Europe with some case studies of other countries. As pupils progress through secondary school their learning becomes much more global.



“To make safe and healthy journeys, we all need safe places to walk and cycle away from traffic, safe places to cross roads, slow traffic and clean air to breathe.”

RECOMMENDATIONS

11 Resources should be developed using a collaborative approach that may involve educational leaders, teachers, children, parents and road safety experts

Those who use a resource are best placed to help design it. If teachers, pupils and parents are included in the creation of resources, they can ensure that those resources meet their needs. Guidance from road safety experts is also important to ensure the content is up to date and accurate.

Focus group participants felt strongly that educating children about safe and healthy mobility should not solely be the responsibility of schools and that teaching resources should include ways to involve parents in their children's learning, both in and out of school.

Additional recommendations:

- Resources should include ways to include parents in the teaching of safe and healthy mobility



RECOMMENDATIONS

12 Resources should be compatible with the digital learning platforms most commonly used in schools

Most schools use digital resources hosted on cloud-based learning platforms to replace or complement traditional printed materials to some degree.

Schools use virtual learning environment (VLE) software to host teaching resources online in an integrated environment that enables pupils and staff to interact online, and also allows staff to plan curricula, create timetables and manage pupil data, finance, etc.

“The best VLEs allowed learners to reinforce their routine work, or catch up on missed lessons. In those best cases the material offered was fun and helpful and was being used well by learners. In the least effective examples, documents had been dumped on the system and forgotten.”

OFSTED review of VLEs⁵⁸

Common features of VLEs

Common features of VLEs include:

- course syllabus
- administrative information
- notice board for information
- course content, including teacher notes; text; audio or video presentations; and other supporting material
- additional resources, either integrated or as links to outside resources, e.g. extra reading
- self-assessment quizzes, normally scored automatically
- formal assessment functions, such as examinations, homework submission, components to support peer assessment
- support for communications, including e-mail, threaded discussions, chat rooms, Twitter and other media, sometimes moderated by teaching staff
- pathways to other online learning spaces

- management of access rights for teaching staff and pupils
- documentation and statistics for school administration and quality control
- authoring tools for creating documents, used by teaching staff and pupils
- interactive online whiteboard for live virtual classes.

How many UK schools use VLEs

There is little up-to-date research specifically about uptake of VLEs in UK schools, but a recent survey of the state of technology in education suggested that schools are gradually becoming more tech-focused, and technology is regarded as a bigger factor than ever in influencing the future of education. Teachers who responded to our educators' survey rated cloud-based tools for lesson planning and delivery as the key technology that will grow most over the next three years, and more than 54% of respondents said they use technology to support their teaching, to some degree.⁵⁹

Online learning saw a huge surge in popularity at the beginning of the COVID-19 pandemic. In March 2020, as schools across the UK closed to prevent the spread of coronavirus, one popular newspaper website⁶⁰ reported that 50,000 pupils a day were signing up for online learning.

For a full report of Brake's survey of educators, see Appendix 7.

Digital platforms

The choice of software available to schools is vast and ever-growing. Schools within the same multi-academy trust (MAT) will often use the same VLE and local authorities also recommend certain platforms, for example 33 London boroughs promote London Grid for Learning.⁶¹

Commonly used platforms include:

- Moodle – 78+ million users worldwide
- Edmodo – 87.4 million users
- Google Classroom – 40 million users
- Canvas – 40 million users
- Schoology – 20 million users
- Frog – 12 million users (6,117 in the UK)
- Its Learning – 7 million users

At the time of writing, there is no definitive, up-to-date list of approved virtual learning platforms for UK schools.

RECOMMENDATIONS 12 (contd.)

Further reading

The following list provides insight into the best of current technology-based learning and should be considered when developing new resources to teach road safety and safe and healthy mobility.

- The 92 Hottest EdTech Tools According to Education Experts (updated for 2019)⁶²
- The Impact of Digital Technology on Learning: A Summary for the Education Endowment Foundation⁶³
- EEF Guidance: Using Digital Technology to Improve Learning (2019)⁶⁴
- EEF – New Guidance for Schools on Digital Technology – Mar 2019⁶⁵
- DfE - Realising the Potential of Technology in Education (2019)⁶⁶

Additional recommendation:

- Teaching resources should be compatible with new teaching and learning methods that have arisen during the COVID-19 pandemic

This research project coincided with the beginning of the COVID-19 global pandemic in 2020, during which time the UK went into 'lockdown', schools were closed or only partially open for months and learning continued for most pupils through online methods.

It is estimated that around 1.2 billion children in 186 countries were affected by school closures due to the pandemic.⁶⁷ During this time, most educators and pupils had to become more familiar with using online technology for learning and the use of online learning is predicted to be increasingly more prevalent in the future.

It is essential that any new teaching resources are compatible with the main VLEs/ LMSs used by schools and take into account future methods for teaching and learning in schools in the light of COVID-19.

“There's much speculation about what will happen when schools reopen in England, with a consensus that online learning will play a bigger part... the future must look very different as the lessons from the COVID-19 pandemic are digested and we rebase the curriculum.”

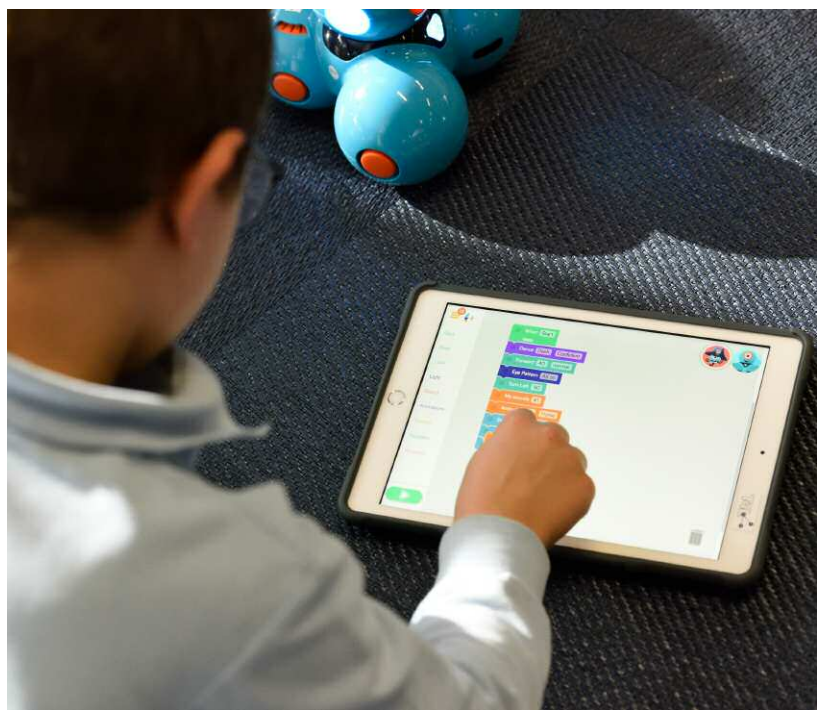
Times Educational Supplement (May 2020)⁶⁸

“Even before COVID-19, there was already high growth and adoption in education technology, with global edtech investments reaching US\$18.66 billion in 2019 and the overall market for online education projected to reach US\$350 billion by 2025. Whether it is language apps, virtual tutoring, video conferencing tools or online learning software, there has been a significant surge in usage since COVID-19.”

World Economic Forum (April 2020)⁶⁹

Further reading

- The National Education Network provides useful information for schools on remote learning⁷⁰
- The Technology Pedagogy and Education Association (TPEA) recommends ideas for parents home-schooling children during the COVID-19 pandemic⁷¹



CONCLUSIONS AND NEXT STEPS

There are many ways in which children and young people can access learning about road safety and safe and healthy mobility, within and outside the school environment. As well as engaging in initiatives run by other organisations, many schools teach pupils about road safety and safe and healthy mobility, and this is mainly done through PSHE or Citizenship lessons. A number of organisations provide resources to support the teaching of road safety in school, and some of these receive government funding.

There is currently no UK-wide, uniform statutory guidance for teaching road safety and safe and healthy mobility in schools. In addition, different UK nations and individual schools can have widely varying curricula. It is reasonable to assume, therefore, that the teaching of road safety and safe and healthy mobility varies widely across the UK – in its frequency, methodology, quality and effectiveness.

The vast majority of educators who were involved in this project told us they would like road safety teaching to be a statutory part of the curriculum, and they would like more resources to support this. However, they also expressed concerns relating to curriculum squeeze and the lack of time available to teach additional subjects.

This report puts forward 12 recommendations to be considered when developing new resources to support the teaching of road safety and safe and healthy mobility in schools (see page 10 for summary and pages 11 to 28 for individual recommendations).

The following resources are also recommended:

1. **Progression map that shows learning objectives for different age groups.** Learning objectives should be clear and precise and focus on knowledge and understanding, skills, and behaviour and attitudes, not the context or activity through which they will be taught or learned. Learning objectives should remain flexible enough to complement or be integrated into different curricula.
2. **Simple guidance on how to teach road safety and safe and healthy mobility,** with a summary of resources available for each age group, plus links to the progression map and individual resources.

3. **Simple lesson plans with clear learning objectives relating to teaching road safety, with a particular focus on the safe systems approach to road safety.** Lesson plans should include cross-curricular links/opportunities; key technical vocabulary; differentiation for more and less able pupils; suggestions for involving parents; links to other resources that accompany the lesson; and links to resources provided by other organisations.
4. **Engaging resources to support the lesson plans,** including but not limited to Powerpoint presentations, films and other activities, to be developed considering the age group, pedagogy and other recommendations given in this report.
5. **Cross-curricular guide for educators** showing how they can use resources in other subjects/lessons within the curriculum.

All resources should be tested by educators and other experts before being released to schools and should be monitored and evaluated against SMART targets to ensure they meet their aims and objectives. Further consultation with educators and road safety experts may be required to ascertain whether more resources are required, for example, per year group.

Brake will seek funding to develop more resources to teach road safety and safe and healthy mobility, with a particular focus on the safe systems approach to road safety, in line with the recommendations given in this report.

Marketing teaching resources to schools

At the time of writing, there are 32,770 schools in the UK:

- 3,714 nurseries or early-learning centres
- 20,832 primary schools
- 19 middle schools
- 4,188 secondary schools.
- 2,408 independent schools
- 1,257 special schools
- 352 pupil referral units (PRUs)

Of these, 74% of all schools are located in England, 15% in Scotland, 6% in Northern Ireland and 5% in Wales.

There are more than half a million full-time teachers in the UK, and the average primary school spends more than £40,000 per year on school resources, while the average secondary school spends more than £170,000.⁷²

Relative spending per pupil per year at different stages of education fluctuates,⁷³ but the education sector as a whole has enormous buying power and competition among those selling into the market is fierce. A number of organisations provide services to help educational publishers navigate what can be seen as a confusing marketplace, and promote their products to schools – through postal and digital channels, including social media

Who decides what resources to buy?

When it comes to resources to teach road safety and safe and healthy mobility, the following staff will hold the most influence in schools:

- Headteachers
- PSHE/Citizenship subject leaders/heads of department
- School council coordinators
- School travel plan coordinators.

Top tips for marketing to schools

1. Teachers will sit up and take notice or pay close attention to the things that are likely to be occupying their minds – such as educational news stories or local events. When marketing to schools, it is useful to find out about the latest OFSTED guidance, consider education exhibitions or other popular educational events.
2. Paying attention to what teachers are talking about and finding links to topical priorities, issues and debates will ensure marketing has the greatest impact. Other organisations may also be willing to help promote resources.
3. It would also be prudent to link to – and show an awareness of – the latest statutory guidance for the teaching of PSHE in primary and secondary schools in England.⁷⁴
4. Organisations such as the PSHE Association may be willing to promote resources to assist the promotion of their own.

What are teachers thinking about?

Teacher Tapp allows teachers in England to share thoughts and opinions by answering three short multiple choice questions sent to an app on their phone at 3.30pm each day.

Thousands of teachers complete each survey and their responses inform blogs which are archived monthly and available to the public.

www.teachertapp.co.uk

Former teacher and educational consultant Marc Anderson has created a 'periodic table' of educational tweeters to follow, collectively providing a wealth of information about current educational priorities, issues and debates.

www.ICTevangelist.com

Teacher Toolkit created by former secondary Deputy Headteacher Ross Morrison McGill, is another useful source of current educational thinking, issues, topics and debates. Known online as @TeacherToolkit, he is the 'most followed educator on social media in the UK', and has built one the most influential education websites, sharing resources with 11+ million readers across the world.

www.teachertoolkit.co.uk

Other useful sources to keep up to date with current educational topics include:

- Times Educational Supplement (**www.tes.com**)
- The various teacher's unions:
 - National Education Union (**www.neu.org.uk**)
 - NASUWT The Teachers' Union (**www.nasuwat.org.uk**)
 - National Association for Headteachers (**www.naht.org.uk**).
- National press articles in newspapers, online or on the TV news

Appendix 1 : Educational terminology across the UK

Educational terminology differs across the UK.
The table below describes the different terminology used to describe year groups at different ages and stages across the UK

Age during school year	England		Wales		Northern Ireland	Scotland
	Early Years Foundation Stage Curriculum (ages 3-5) National Curriculum		Foundation Phase Curriculum (ages 3-7 combined with UK Key Stage 1 curriculum) National Curriculum (same as England)		Northern Ireland Curriculum	Curriculum for Excellence
4-5	Reception		Reception		Year 1	Nursery
5-6	Year 1	Key Stage 1	Year 1	Key Stage 1	Year 2	P1
6-7	Year 2		Year 2		Year 3	P2
7-8	Year 3	Key Stage 2	Year 3	Key Stage 2	Year 4	P3
8-9	Year 4		Year 4		Year 5	P4
9-10	Year 5		Year 5		Year 6	P5
10-11	Year 6		Year 6		Year 7	P6
11-12	Year 7	Key Stage 3	Year 7	Key Stage 3	Year 8	P7
12-13	Year 8		Year 8		Year 9	S1
13-14	Year 9		Year 9		Year 10	S2
14-15	Year 10	Key Stage 4	Year 10	Key Stage 4	Year 11	S3
15-16	Year 11		Year 11		Year 12	S4
16-17	Year 12	Key Stage 5	Year 12	Key Stage 5	Year 13	S5
17-18	Year 13		Year 13		Year 14	S6

Appendix 2: Organisations that provide information and resources to support the teaching of road safety and safe and healthy mobility in schools

Brake, the road safety charity

Brake is a road safety charity that supports road crash victims and campaigns for safe and healthy journeys for all. Brake helps schools and families to champion the cause of road safety and raise awareness of key road safety issues, and provides resources including guidance, lesson plans and activity sheets to support teachers in their lessons. Brake runs a number of projects to help schools raise awareness of key road issues, including Road Safety Week, Brake's Kids Walk and Beep Beep! Days. See pages 7 and 8 for more details.

www.brake.org.uk

Living Streets

Living Streets campaigns for walking to become everyone's natural choice for everyday local journeys. It wants to energise and empower every child who can to walk to school, and is calling for streets to become safer environments for people to walk in. Living Streets offers learning resources for educators to help pupils find out what can make walking safer, and to encourage more children to walk to school.

www.livingstreets.org

Royal Society for Prevention of Accidents (RoSPA)

RoSPA is a UK charity that aims to teach people the skills they need to reduce serious injuries resulting from road crashes. It has developed a range of resources to help educators, and runs training sessions for schools and colleges focused on road safety topics.

www.rospace.com

Youth For Road Safety (YOURS)

YOURS was founded as a result of the UN World Youth Assembly for Road Safety in 2007. It works to make roads safer for young people around the world and encourages them to become part of the solution themselves. YOURS runs campaigns to raise awareness about road safety, inspires young people to become road safety champions, and provides helpful resources through an action kit that condenses information into accessible chunks.

www.youthforroadsafety.org

Cycling UK

Cycling UK has campaigned to make roads safer places to cycle for more than 140 years. The organisation wants to see streets designed to encourage people to move around in active ways, and works with volunteers around the country to call for safer cycling infrastructure. It has written several guides to help encourage cycling as an option for children to get to schools, and to inform people of how to cycle safely on the school run.

www.cyclinguk.org

Sustrans

Sustrans aims to make it easier for people everywhere to walk and cycle. The charity wants to create healthier, happier communities by encouraging active transport and making roads safer places to move around near. It works alongside schools on a number of projects that encourage safer active journeys, and organises activities that can help educators increase physical activity, reduce congestion and improve safety around their schools.

www.sustrans.org.uk

Appendix **2** (contd)

Cycle Smart Foundation

The Cycle Smart Foundation was set up to help save young people's lives by promoting safer cycling, particularly through encouraging the use of cycle helmets. Its schools programme offers educational downloads for schools and young people containing facts about cycling safety.

www.cycle-smart.org

Road Safety GB

Road Safety GB aims to raise awareness of road safety and safe road user behaviour by offering training, advice and other resources. It has developed a range of educational programmes designed to help reduce the number of crashes that occur on our roads, and through its Road Safety Knowledge Centre, it provides an online library of road safety information that is free to anyone.

www.roadsafetyknowledgecentre.org.uk

CrashMap

CrashMap is an online resource that lets members of the public view police information about reported crashes that caused injury. It contains information about collisions from 1999 onwards and is free to use to view details of where the crashes occurred, dates, times, the numbers of casualties and the vehicles involved.

www.crashmap.co.uk

Road Safety Scotland

Road Safety Scotland provides information and activities designed to help everyone move around safely on Scotland's roads. Its website hosts resources for children of all ages, including interactive resources that children can use to learn road safety facts, curriculums for excellence, and Direction Magazine, which provides children with updates on road safety campaigns.

www.roadsafety.scot

Driving and Vehicle Licensing Agency (DVLA)

The DVLA is a government organisation that keeps a database of drivers and vehicles registered in Britain. It publishes research and statistics on driver and vehicle registrations.

www.gov.uk/government/organisations/driver-and-vehicle-licensing-agency

Modeshift STARS

Modeshift STARS is a scheme that recognises schools and other organisations that have shown excellence in supporting cycling, walking and other forms of sustainable and active travel. Its online Travel Plan Toolkit helps schools create and implement travel plans, and schools can gain accreditation if they demonstrate best practice in achieving safer journeys.

www.modeshiftstars.org/education/

THINK!

THINK! is the official initiative that oversees government road safety campaigns. It offers resources for educators working with children aged 3-16, including lesson plans, informative films and games.

www.think.gov.uk/education-resources/

Appendix 3: How teaching of road safety and safe and healthy mobility fits within the different curricula across the UK

England

There is no statutory requirement to teach road safety and safe and healthy mobility in schools in England. These subjects are mainly taught within Personal, Social, Health and Economic Education (PSHE) and Citizenship lessons.

Until September 2020, PSHE was a non-statutory subject, but has been taught to some extent in nearly all schools. Under the Children and Social Work Act (April 2017) most elements of PSHE became statutory for all schools from September 2020.

The National Curriculum⁷⁵ states that: “All schools should make provision for PSHE drawing on good practice.” PSHE education contributes to schools’ statutory duties outlined in the Education Act 2002 and the Academies Act 2010 to provide a balanced and broadly based curriculum and is essential to Ofsted judgements in relation to personal development, behaviour, welfare and safeguarding.⁷⁶

The updated (2020) statutory PSHE guidance includes a requirement to teach health education in both primary and secondary phases, including physical health, wellbeing and fitness. Under these broad headings, schools may choose to teach about making safe and healthy journeys, although it is not a specific requirement.

“Schools are free to determine how to deliver the content set out in the new 2020 [PSHE] guidance, in the context of a broad and balanced curriculum. Effective teaching in these subjects will ensure that core knowledge is broken into units of manageable size and communicated clearly to pupils, in a carefully sequenced way, within a planned programme or lessons. Teaching will include sufficient well-chosen opportunities and contexts for pupils to embed new knowledge so that it can be used confidently in real life situations.

PSHE Association



The PSHE Association has created detailed programmes of study for KS1–KS5 aligned to the new guidance, which references road safety and safe and healthy mobility, mainly for KS1 and KS2.

Schools are encouraged to take a cross-curricular approach where possible, making links to other national curriculum subjects. There is a specific section on SEND within the guidance, where schools must ensure teaching and learning of PSHE is accessible for all pupils.

The new guidance also encourages educators to use resources from the Department For Transport’s Think! website to support the teaching of road safety.

Wales

There is no statutory requirement to teach road safety and safe and healthy mobility in schools in Wales. These subjects are mainly taught within Personal and Social Education (PSE) and Citizenship lessons.

In Wales, children follow the Welsh Foundation Phase Curriculum from ages 3–7, which has been combined with the English Key Stage 1 National Curriculum. After this, children broadly follow the English National Curriculum, with the additional compulsory teaching of Welsh.

Following the Welsh PSE curriculum, children learn about active citizenship, health and emotional wellbeing, moral and spiritual development, preparing for lifelong learning, sustainable development and global citizenship. There is no specific requirement to teach road safety and safe and healthy mobility, but schools may choose to teach these subjects within their own broad and balanced curriculum.

The Welsh curriculum is currently in a period of transition. New curriculum guidance was issued in January 2020 and it is proposed that schools will be required to design, develop and implement their own individual curricula from September 2022 for learners up to and including Year 7. Secondary schools are expected to roll out their curricula on a year-by-year basis, with Year 8 in September 2023 through to Year 11 in September 2026.

Appendix 3 (contd)

Citizenship

Citizenship has been part of the National Curriculum in England and Wales since 1991, and compulsory in secondary schools since 2002.

There are non-statutory programmes of study for pupils in KS1 and KS2, where there are broad and inferred references to safe and healthy mobility under the 'Developing a healthy, safer lifestyle' heading.⁷⁷

For KS3 and KS4, there are statutory programmes of study. Although there is no specific reference to safe and healthy mobility, there are many links possible through the programmes of study to foster pupils' awareness of democracy, government and law, explore political and social issues, weigh evidence, debate and make reasoned arguments, and prepare pupils to take their place in society as responsible citizens.⁷⁸

Northern Ireland

There is no statutory requirement to teach road safety and safe and healthy mobility in schools in Northern Ireland. These subjects are mainly taught within PSHE and Citizenship lessons.

The Northern Irish Curriculum is based on the national curriculum of England and Wales, and statutory requirements for PSHE and Citizenship are similarly broad. Road safety and safe and healthy mobility is not mentioned specifically, but broadly falls under the requirement for children to develop "strategies and skills for keeping themselves healthy and safe".⁷⁹

Progression grids for Foundation, KS1 and KS2 include a single broad learning objective per key stage for road safety and schools can determine themselves if, when and how to deliver these.⁸⁰ The current post-primary curriculum includes 'Learning for life and work', which is made up of employability, personal development, local and global citizenship and home economics, and there is scope for schools to choose safe and healthy mobility as a focus. There are some, limited resources to support road safety education on the NI Direct Government Services website.⁸¹

Scotland

Road safety teaching is not compulsory within schools and is usually taught within PSE and Citizenship lessons.

Road Safety Scotland (RSS) develops and co-ordinates national road safety learning initiatives in Scotland and works with internal and external partners to develop high-quality teaching resources for 3–18-year-olds, linked to the Curriculum for Excellence.

Resources are written by teachers for teachers, and available online.⁸² The booklet 'Road Safety within Curriculum for Excellence' provides a quick and easy reference to RSS resources and how they link to Curriculum for Excellence experiences and outcomes.⁸³ The resources allow teachers to 'pick up and teach' and offer opportunities for active and interdisciplinary learning. Resources are regularly evaluated and updated, and include links to PSE and citizenship objectives.



Appendix 4 : Example questions and activities for each level of Blooms Taxonomy

	Level of Blooms Taxonomy	Example questions	Example activities
Lower order thinking skills	Remember	When...? Where? Who...? What...? Identify...? Can you list...? Can you name...? Can you find and copy?	Answer literal questions about... Memorise/remember/tell... Draw a picture of... List... Write about... Re-tell Re-enact...
	Understand	Why did...? How did...? Can you explain...? Can you describe...? Can you summarise when...? What do you think the reasons are for...? Can you give an example of...?	Answer inferential questions about... Discuss... Explain... Draw a diagram of... Report about... Sort/Classify... More developed role play...
	Apply	Can you predict what would happen if...? Can you calculate...? Can you solve...? Can you demonstrate...? Can you suggest...?	Answer deductive questions about... Make a similar... Design a similar... Investigate... Create another role play about...
	Analyse	Can you organise...? Can you compare A to B...? What are the underlying themes? How was this similar to...? What were the motives behind...? What were the problems with...? Can you explain what must have happened when...? What were the reasons for...?	Construct a graph about... Construct a graph about... Write a report about... Make a flow chart about... Explain investigation results of... Make and explain a chart/table of...
	Evaluate	What do you think about...? How would you have handled...? What changes would you recommend...? How effective are...? Is there a better solution to...? Judge the value of...? Can you defend...? Can you support...? Can you critique...?	Hold a debate about... Prepare and give a persuasive presentation about... Write a persuasive letter/article about... Write/present a conclusion and summary of...
Higher order thinking skills	Create	Can you develop a proposal which would...? Can you create your own idea for...? Can you invent a...? Can you formulate...?	Create a new... Design a new... Compose a new... Develop a new... Invent a new...

Appendix **5** A summary of speech, language and communication difficulties, including autism spectrum disorder (ASD) and effective strategies to support pupils with them

Pupils with special educational needs and disabilities (SEND) may or may not have speech, language and communication needs (SLCN), including autism spectrum disorder (ASD).

Pupils with SLCN may have difficulty with one speech, language or communication skill, or with several. They may have difficulties with listening, understanding and/or talking. Each child also has a unique combination of strengths. Every child with SLCN is different, but many approaches used to support pupils who have SLCN will also be suitable to support other children without a particular need.

Autism spectrum disorder (ASD)

Pupils with autism often struggle with aspects of communication and social interaction as well as imaginative thinking. They often have language needs, though this varies greatly between individuals. Some pupils may have high functioning autism and they may have good language with some specific areas of difficulty.

Pupils with autism may experience difficulty with:

- Social communication
- Restrictive, repetitive patterns of behaviour, interests or activities
- Sensory processing
- Anxiety
- Understanding others who have a different viewpoint and opinion
- Organisation
- Attention
- Learning

Pupils with autism may have the following strengths:

- Exceptional memory for facts and figures
- Specialist knowledge in topics of interest
- Very high level of motivation in topics and activities that are of interest

- Ability to carry out tasks with a high degree of accuracy
- Excellent attention to detail
- Ability to follow instructions and rules very accurately when taught in the correct way
- Exceptional skills in creative arts, such as Art and Music
- Ability to see the world from a different perspective and so bring a different insight
- Ability to bring an innovative approach to problem solving
- Tendency to be honest and non-judgemental
- Tendency to have a strong sense of loyalty in all social relationships
- Unique sense of humour

Other common types of SLCN

Language delay

Language delay may affect what the child can say (expressive language) and/or understand (receptive language) and may be accompanied by other SLCNs, e.g. unclear speech (phonological delay). Language development follows the typical developmental pattern but at a slower rate.

Specific receptive language impairment (SRLI)

A persistent or long-term difficulty in understanding spoken language that can't be explained in terms of another factor such as social, emotional, behavioural, educational, physical or sensory difficulties, hearing loss, global developmental delay or autism. Specific expressive language impairment. A specific difficulty in using expressive language that can't be explained in terms of other factors such as social, emotional, behavioural, educational, physical or sensory difficulties, hearing loss, global developmental delay or autism.

Appendix 5 (contd)

Dyslexia

A specific difficulty in learning to read or interpret words, letters, and other symbols, which often also affects writing ability, but does not affect general intelligence.

Verbal dyspraxia

A disorder that affects a child's ability to produce clear speech. The condition can range from mild to severe.

Central auditory processing disorder (CAPD) or Auditory processing disorder (APD)

An inability to process what's being heard. It describes a variety of problems with the brain that interfere with the processing of auditory information.

Disarthria

A movement disorder caused by brain dysfunction or injury. It results in difficulties in moving the muscles needed for speech, eating and drinking. Dysarthria occurs in a number of neurological conditions (for example, cerebral palsy).

Children who are non-verbal

May be a consequence of a wide range of conditions including cerebral palsy, Down's syndrome, autism, neurological disorders, trauma or speech disorders. Non-verbal children are likely to have atypical learning styles.

Phonological delay

Difficulty producing speech. Affects the child's sound system meaning their speech is unclear and difficult to follow.

Selective mutism

Inability to speak in specific social situations. Often associated with other anxiety disorders.

Pragmatic language impairment

Difficulty in using language appropriately in social situations.

Strategies that may support pupils with SLCN, including ASD

Many pupils with SLCN may receive individual programmes of support from speech and language therapists, educational psychologists, or other professionals.

Here are some common strategies used to support pupils with SLCN in class:

Printed resources

1. Adapt written resources using software such as 'Communicate: In Print', which uses symbols to replace text.
2. Use additional resources such as physical props, multi-media, ICT, worksheets and diagrams to present and explore new concepts
3. Ensure that presentation is clear and easy to follow.
4. Highlight key words or phrases.
5. Use short paragraphs.
6. Use worksheets that get progressively more difficult as the number of tasks increases, to help pupils complete activities involving multiple or complex sequences.

Other tools to support teaching

1. Use assistive technology to support pupils who find it difficult to demonstrate learning through writing.
2. Video modelling lets the pupil use their voice to demonstrate and explain their learning.
3. Use visual 'now and next' boards to show what is happening now and what will come next.
4. For group activities, provide cards that show all the roles within the group; help pupils choose a role they can successfully carry out.
5. Provide visual scaffolds, to show all the steps involved in completing a task.
6. Include Social Stories - short descriptions of a particular situation, event or activity, which include specific information about what to expect in that situation and why.⁸⁴
7. Include multisensory learning (e.g. tracing over letters with shaving foam, finger painting letters, while saying the sound).

Appendix 5 (contd)

Make learning simple

1. Break tasks into chunks and teach each part in a 'mini-lesson'.
2. Link mini-lessons with backward or forward chaining.
3. Backward chaining: The last step is taught first to give the pupil a sense of completing the task independently. Each step is then taught and mastered in reverse order.
4. Forward chaining: Each step in the process is taught in the chronological sequence.
5. Identify and explain key words and concepts at the start of the lesson or at the start of a topic. Allow pupils time to independently research the topic before teaching begins.
6. Provide an example of the completed task/ outcome based on the learning objective.
7. Use overlearning techniques – repeat the same content multiple times.
8. Use colour-coded systems as visual reminders

Useful organisations for teachers supporting pupils with SEND

- The Communication Trust - www.thecommunicationtrust.org.uk
- SOS! SEN – Supporting children and young people with SEND - www.sossen.org.uk
- Speech and Language Services - www.talkingpoint.org.uk
- British Dyslexia Association - www.bdadyslexia.org.uk
- Dyslexic Research Trust - www.dyslexic.org.uk
- National Autistic Society - www.autism.org.uk
- National Deaf Children's Society - www.ndcs.org.uk
- Royal National Institute of the Blind - www.rnib.org.uk
- Young People's Inclusion Network - www.kids.org.uk

Further reading about supporting SEND pupils.

- The Curriculum Challenge. Access to the National Curriculum for Pupils with Learning Difficulties. Rob Ashdown.
- Enabling Access. Barry Carpenter.
- A Sensory Curriculum for Very Special People. Flo Longhorn.
- Personalised Learning for Young People with Profound and Multiple Learning Difficulties. Andrew Colley.
- Bloomsbury CPD Library. Supporting Children with Special Educational Needs and Disabilities. Cheryl Drabble.
- 101 Games and Activities for Supporting children with Autism, Aspergers, and Sensory Processing Disorders. Tara Delaney.
- Sensory Being for Sensory Beings: Creating Entrancing Sensory Experiences. Joanna Grace.
- Sensory Circuits. A Sensory Motor Skills Programme for Children. Joanna Horewood.
- Self-Regulation Interventions and Strategies. Keeping the Body Mind and Emotions on Task in children with Autism, ADHD or Sensory Disorders. Teresa Garland.
- Sensory Strategies. Practical Ways to Help children and Young People with Autism Learn and Achieve. Laurie Corinna.
- Social Skills Activities. 50 Fun Exercises for Making Friends, Talking and Listening and Understanding Social Rules. Natasha Daniels.
- My Social Stories Book. Carol Gray.

Appendix 6 : Websites and further reading providing strategies for differentiation

TES Differentiation Deviser 80 Strategies for Differentiation	https://www.tes.com/teaching-resource/the-differentiation-deviser-6233159
Tech & Learning: '30 sites for differentiated instruction'	https://www.techlearning.com/features/15-sites-for-differentiated-instruction
Primary Professional Development Service 'Differentiation in Action'	https://pdst.ie/sites/default/files/Session%20-%20Differentiation%20Resource%20_0_0.pdf
Eutopia Scaffolding Strategies	https://www.edutopia.org/blog/spot-scaffolding-students-rebecca-alber
Minds in Bloom 10 Questioning Strategies to Differentiate Instruction	https://minds-in-bloom.com/10-questioning-strategies-to/
Eutopia Differentiated Instruction: Resource Roundup	https://www.edutopia.org/article/differentiated-instruction-resources
TES Practical Differentiation Ideas for the Busy Teacher	https://www.tes.com/teaching-resource/practical-differentiation-ideas-6401913

Further reading about differentiation

- The Differentiated Classroom: Responding to the Needs of All Learners. Carol Ann Tomlinson
- Making the Most of Small Groups. Differentiation for all. Debbie Diller
- Differentiation and the Brain: How Neuroscience supports a learner-friendly classroom. David A Sousa, Carole Ann Tomlinson.
- Making Differentiation a Habit: How to ensure success in academically diverse classrooms. Diane Heacox.
- So All Can Learn. A Practical Guide to Differentiation. John McCarthy.
- Differentiation in Action: A Complete Resource With Research-Supported Strategies to Help You
- Plan and Organize Differentiated Instruction and Achieve ... All Learners (Scholastic Teaching Strategies). Judith Dodge.
- Advanced Differentiation. Thinking and Learning for the 21st Century. Richard M Cash.
- The Ultimate Guide to Differentiation. Sue Cowley.

Appendix 7: Teaching safe and healthy mobility: A survey for educators

This is a survey report on teaching safe and healthy mobility, by Brake. We asked 101 educators questions about their capacity to incorporate road safety and healthy mobility into their lessons. The questions were shared via SurveyMonkey between March and June 2020.

In Question 1, we asked educators how many PSHE or Citizenship lessons are taught in each year group in an average year.

The largest proportion (42%) of educators teach PSHE or Citizenship more than 20 times a year, with many adding that these subjects are taught weekly. The highest number of these lessons in an average year by an educator was 80.

Approximately a fifth of educators (22%) teach Citizenship or PSHE 13-20 times per year, and 16% teach these subjects 1-6 times – twice as many as those who teach them 7-12 times per year (7%).

The remaining 13% of educators told us that they do not teach Citizenship or PSHE.

Q1. On average, how many PSHE or Citizenship lessons are taught in each year group over the year?

0	13 (13%)
1-6	16 (16%)
7-12	7 (7%)
13-20	22 (22%)
More than 20	42 (42%)

In Question 2, we asked educators what is the usual length of each PSHE or Citizenship lesson.

Over a third (34%) of educators teach PSHE or Citizenship lessons for 45-60 minutes. A fifth (20%) said their lessons last 15-30 minutes, and 22% said they lasted 31-45 minutes. Just 8% of Citizenship or PSHE lessons last less than 15 minutes, and 15% selected 'other'.

Some of the options given under 'other' included '90 minutes' and '120 minutes'. However, many

respondents used this option to state that they do not teach these lessons.

Q2. What is the usual length of each lesson?

Less than 15 minutes	8 (8%)
15-30 minutes	22 (22%)
31-45 minutes	20 (20%)
45-60 minutes	33 (34%)
Other	15 (15%)

In Question 3, we asked educators whether they think teaching children about road safety and healthy mobility choices should be statutory.

We provided educators with the statement:

Every 20 minutes someone is killed or seriously injured on a UK road and road traffic injuries are the leading killer of young people aged 5-29 worldwide.

The vast majority (96%) of educators felt teaching children about road safety and healthy mobility choices should be statutory. Only 4% disagreed. When asked to explain their answer, many respondents said that road safety is a life skill that all children need, and more young people die on the roads than from other causes like alcohol that are statutory parts of the curriculum.

Q3. Every 20 minutes someone is killed or seriously injured on a UK road and road traffic injuries are the leading killer of young people aged 5-29 worldwide. Do you think teaching children about road safety and healthy mobility choices should be statutory?

Yes	96 (96%)
No	4 (4%)

In Question 4, we asked educators whether they currently teach pupils about road safety and making healthy mobility choices.

Around four-fifths (79%) of educators currently teach pupils about road safety and making healthy mobility choices, while 21% do not.

Appendix 7 (contd)

Q4. Do you currently teach pupils about road safety and making healthy mobility choices (e.g. walking and cycling) at your school?

Yes	80 (79%)
No	21 (21%)

In Question 5, we asked educators about the things that prevent them from teaching road safety and healthy mobility.

The biggest single barrier to educators teaching road safety and healthy mobility was that it is not part of the curriculum (40%). A quarter of respondents said they lacked enough resources (25%) and 20% have no-one qualified to teach the subject. A lack of budget was the main problem for 15% and 10% said road safety and healthy mobility are not relevant.

Almost half (45%) of respondents also selected 'other' as the reason why they do not teach these subjects. When asked to explain their comments, some respondents said it is taught to specific year groups by external providers, and others said they did not know what prevented them.

Q5: Which of the following prevent you from teaching road safety and healthy mobility? (please tick all that apply)

We have no budget	3 (15%)
We have no resources	5 (25%)
It's not part of the curriculum	8 (40%)
We do not have anyone qualified to teach it	4 (20%)
It's not relevant	2 (10%)
Other	9 (45%)

In Question 6, we asked educators how their pupils currently learn about road safety and healthy mobility.

The most common way that pupils are taught about road safety and healthy mobility is through PSHE lessons (65%). Road safety workshops such as cycling proficiency training are also commonly used (61%), as are road safety visitors such as the emergency services (58%). More than half of educators (56%) also use assemblies to teach these subjects.

Approximately half as many educators teach these subjects by taking part in external events. One in three (32%) participate in National Road Safety Week, 31% use road safety days like Beep Beep! Days, and 24% use extra-curricular projects such as Duke of Edinburgh.

Less than a quarter of educators (23%) teach road safety and healthy mobility through other lessons, such as PE sessions, or through role play for younger children. Just 3% of educators use parent workshops to teach these subjects.

Q6: In what ways do pupils at your school currently learn about road safety and healthy mobility? (Please tick all that apply)

PSHE lessons focusing on road safety or healthy mobility choices	46 (65%)
Other lessons, e.g. road safety included as a curriculum topic (please give details below)	16 (23%)
Assemblies	40 (56%)
Road safety workshops, e.g. cycling proficiency training	43 (61%)
Road safety days, e.g. Beep Beep! Days or equivalent	22 (31%)
National Road Safety Week (takes place every November)	23 (32%)
Road safety visitors, e.g. emergency services	41 (58%)
Extra-curricular projects, e.g. CCF, Duke of Edinburgh, National Citizenship Service, after-school clubs	16 (23%)
Parent workshops	2 (3%)

In Question 7, we asked educators how many hours on average pupils spend learning about road safety and healthy mobility each year.

Every respondent told us that pupils spent at least one hour per year learning about road safety and healthy mobility. The most common length of time spent on this topic was 1-5 hours (42%), followed by 6-10 hours (28%). 10% of educators said 11-15 hours, 8% said 16-20 hours and 7% said more than 30 hours.

Appendix 7 (contd)

Q7. For approximately how many hours, on average, do pupils learn about road safety and healthy mobility each year? (This can include cycling proficiency training, etc.)

1-5	30 (42%)
6-10	20 (28%)
11-15	7 (10%)
16-20	6 (8%)
21-25	2 (3%)
26-30	1 (1%)
More than 30	5 (7%)
None – pupils do not learn about road safety and healthy mobility	0 (0%)

In Question 8, we asked educators about the resources that they currently use to teach road safety and healthy mobility.

More than six in 10 educators (63%) said they use lesson plans to teach road safety and healthy mobility, making them the most-used resource. This was followed by PowerPoint slides (or similar) (60%), films (50%), and assembly plans (49%).

Books and other reading materials are used by 34% of educators, and a similar proportion (29%) use colouring sheets.

The least commonly-used resources were audio recordings (0%), model-making (6%), and computer games (7%).

Q8. Which of the following types of resources do you currently use to teach road safety and healthy mobility? (Please tick all that apply)

Lesson plans	44 (63%)
Assembly plans	34 (49%)
Colouring sheets	20 (29%)
Activity sheets	32 (46%)
Films	35 (50%)
Games	14 (20%)
PowerPoint slides (or similar)	42 (60%)
Books/stories/reading materials	24 (34%)
E-lessons	6 (9%)
Songs	12 (17%)
Audio recordings	0 (0%)
Large-scale resources/props	15 (21%)
Computer games	5 (7%)
Computer activities	15 (21%)
Board games	6 (9%)
E-quizzes	7 (10%)
Drama activities	16 (23%)
Debates	11 (16%)
Model-making	4 (6%)
Painting/drawing/craft	15 (21%)
Maps	16 (23%)
Other	17 (24%)

In Question 9, we asked educators how many assemblies they run each year on a subject relating to road safety or making healthy mobility choices.

The vast majority of educators run at least one assembly on these subjects each year, with 71% running 1-3 and 11% running 4-6. Only 17% do not run an assembly relating to road safety or making healthy mobility choices. However, no educator runs more than 6 of these assemblies.

Q9. On average how many assemblies do you run each year on a subject that relates to road safety or making healthy mobility choices?

0	12 (17%)
1-3	50 (71%)
4-6	8 (11%)
6+	0 (0%)



Appendix 7 (contd)

In Question 10, we asked educators about the road safety activities that their school has taken part in.

The feedback shows that Road Safety Week is the most popular activity that Brake runs with educators as three quarters have taken part (74%) – almost two and a half times the number that have taken part in a Beep Beep! Day (30%).

Four in 10 educators (42%) have taken part in a road safety poster competition, and more than one in six educators (18%) have participated in Brake's Kids Walk or Brake's Giant Walk. Just 4% have participated in either Youth for Brake or in Project24.

Q10. Has your school ever taken part in the following road safety activities? (Please tick all that apply or leave blank if you haven't taken part in any of them)

Beep Beep! Days	17 (30%)
Brake's Kids Walk (or Brake's Giant Walk)	10 (18%)
Road Safety Week	42 (74%)
Youth for Brake	2 (4%)
Project24	2 (4%)
Road safety poster competitions	22 (42%)

In Question 11, we asked educators about the websites that they use to teach road safety and healthy mobility.

The proportions of teachers who have used brake.org.uk (63%) and think.gov.uk (58%) are similar. These two websites were by far the most commonly used, as just 20% of educators have used livingstreets.org.uk or cyclinguk.org, and 22% have used rospa.com.

Sustrans.org.uk is slightly more popular, as it is used by 27% of educators, while youthforroadsafety.org was used by just 5%.

Other websites used by educators to teach road safety and healthy mobility include Twinkl and the DVLA.

Q11. Which of the following websites do teachers use to teach road safety and healthy mobility? (Please tick all that apply or leave blank if you haven't used any of them)

www.brake.org.uk	37 (63%)
www.think.gov.uk	34 (58%)
www.livingstreets.org.uk	12 (20%)
www.rospa.com	13 (22%)
www.youthforroadsafety.org	3 (5%)
www.cyclinguk.org	12 (20%)
www.sustrans.org.uk	16 (27%)
Other	8 (14%)

In Question 12, we asked educators whether they have a budget for buying resources that enable them to teach road safety and healthy mobility.

Less than a fifth (17%) of educators told us they have a budget for teaching these subjects. This breaks down as 10% with a budget for road safety lessons and 7% with a budget for healthy mobility lessons. Another 26% of educators did not know whether they had a budget, and the remaining 62% did not.

Q12. Do you have a budget for buying resources to enable you to teach road safety and healthy mobility in your school? (please tick all that apply)

Yes – for teaching road safety	9 (10%)
Yes – for teaching healthy mobility	6 (7%)
No	53 (62%)
I don't know	22 (26%)

In Question 13, we asked educators about what format of new educational resources they would prefer.

The most popular format for new resources was 6 X 30-minute lessons about the safe systems approach to road safety per year group. This option was selected by more than a third (35%) of educators. Less than half as many (14%) would prefer the lesson plans to last 1 hour instead of 30 minutes.

However, hour-long lessons were preferred to 30-minute lessons if the resources were being developed for key stage groups rather than year groups. 10% of educators said their school would be

Appendix 7 (contd)

more likely to use 6 X one-hour lessons about the safe systems approach to road safety per key stage, compared with 9% who would use 6 X 30-minute lessons about the safe systems approach to road safety per key stage.

Almost a fifth (19%) of educators instead said they would be most likely to use a cross-curricular guide on how to integrate the safe systems approach to road safety into other lessons, and just 3% would not use any new resources.

When asked to give their own preferences for new resources, respondents suggested:

- Lessons lasting 15 minutes
- An app aimed at pre-school aged children
- New activities to do with the children as they have been completing the same activities for several years

Q13. If new educational resources about the safe systems approach to road safety were to be developed, given your curriculum/timetable requirements, which would your school be most likely to use? (Please select just one preference)

6 X 30-minute lessons about the safe systems approach to road safety per year group	30 (35%)
6 X one-hour lessons about the safe systems approach to road safety per year group	12 (14%)
6 X 30-minute lessons about the safe systems approach to road safety per key stage	8 (9%)
6 X one-hour lessons about the safe systems approach to road safety per key stage	9 (10%)
A cross-curricular guide on how to integrate the safe systems approach to road safety into other lessons	16 (19%)
We would not use new lessons/resources about the safe systems approach to road safety	2 (3%)
My own suggestion (please give details)	9 (10%)

In Question 14, we asked educators how they would prefer to access resources to help them teach road safety and healthy mobility.

Most respondents (92%) would prefer to download and print files from a website. Almost 3 in 10 (27%) would be happy to order copies in a pack and 6% gave their own suggestions. However, only one of these suggestions was a real option for a new way to access resources (using them online), with other comments relating to additional material they would like to be sent (an initial poster or advertising material), or the cost of ordering and printing resources.

Q14. How would you choose to access resources to enable you to teach road safety and healthy mobility? (please tick all that apply)

Download and print files from a website	79 (92%)
Order hard copies in a pack	23 (27%)
Other (please give details)	5 (6%)

In Question 15, we asked educators what resources they would like access to as part of lessons on road safety and healthy mobility.

The feedback shows a broad range of demand for different resources. The vast majority of educators said they would like PowerPoint slides (85%) and short films (83%), as well as lesson plans (72%) and worksheets/follow-on activities (70%).

Almost two-thirds (64%) also said they would like access to guidance for practical activities, and just less than half (47%) would like cross-curricular links/ideas.

Around a four in 10 educators (38%) selected books/stories/reading materials and a third said they would use computer activities (36%).

Computer games were slightly less popular, as they were selected by 27% of respondents. Drama activities (30%), debates (27%), e-quizzes (29%) and songs (29%) all received approximately the same level of support.

The option that was chosen by the fewest educators was audio recordings (10%).

Appendix 7 (contd)

Q15. What would you like to see in these new lessons/resources? (please tick all that apply)

Lesson plans	62 (72%)
PowerPoint slides to support teacher input	73 (85%)
Short films	71 (83%)
Worksheets/follow on activities	60 (70%)
Guidance for practical activities	55 (64%)
Cross-curricular links/ideas	40 (47%)
Physical resources for children to touch/use (please give suggestions below)	27 (31%)
Books/stories/reading materials	33 (38%)
E-lessons	18 (21%)
Songs	25 (29%)
Audio recordings	9 (10%)
Large-scale resources/props	15 (17%)
Computer games	23 (27%)
Computer activities	31 (36%)
Board games	18 (21%)
E-quizzes	25 (29%)
Drama activities	26 (30%)
Debates	23 (27%)
Model-making	15 (17%)
Painting/drawing/craft	17 (20%)
Maps	16 (19%)

In Question 16, we asked educators how their school is funded.

Most educators who responded to the survey work in state-funded schools (84%). Around one in 10 (8%) receive private fees and 4% are funded via religious institutions. Another 10% receive funding from other sources, including being charity-run, being an academy, and local-authority funded.

Q16. How is your school funded? (please tick all that apply)

State-funded	70 (84%)
Private fee	7 (8%)
Church	3 (4%)
Other	8 (10%)

In Question 17, we asked educators which age groups their school teaches.

The responses show that most age groups have broadly similar representation in the schools that respondents work in. Approximately half of educators work in schools with EYFS (54%), KS1 (53%), KS2 (54%), KS3 (47%) or KS4 (47%). KS5 was the only age group with a statistically significant difference (37%).

Q17. Which of the following age groups does your school teach? (please tick all that apply)

EYFS	45 (54%)
KS1	44 (53%)
KS2	45 (54%)
KS3	39 (47%)
KS4	39 (47%)
KS5	31 (37%)

In Question 18, we asked educators how many pupils they have.

More than half of educators (56%) work in institutions with 500 or fewer pupils. This breaks down as 10% in schools with 1-50 students; 7% in schools with 51-100; 16% in schools with 101-250; and 23% in schools with 251-500.

When focusing on a single pupil range, most educators work in schools with more than 1,000 pupils (25%). Just under a fifth (19%) work in schools with 501-1,000 pupils.

Q18. How many pupils do you have?

1-50	8 (10%)
51-100	6 (7%)
101-250	13 (16%)
251-500	19 (23%)
501-1000	16 (19%)
More than 1,000	21 (25%)

In Question 19, we asked educators what percentage of pupils require differentiation activities within lessons.

Pupils who are SEND or have an Educational Health Care Plan may require differentiation activities within lessons.

Appendix 7 (contd)

Most educators (63%) told us that only up to a quarter of their pupils require differentiation within lessons. A fifth (20%) said 26-50% require differentiation, 6% said 51-75% require differentiation, and 8% said more than three-quarters require differentiation. The remaining 2% did not know what percentage required differentiation.

Q19. Approximately what percentage of pupils require differentiation activities within lessons, e.g. because they are SEND and/or have an educational health care plan (EHCP)?

0-25%	52 (63%)
26-50%	17 (20%)
51-75%	5 (6%)
More than 75%	7 (8%)
I don't know	2 (2%)

In Question 20, we asked educators whether they are part of a multi-academy trust or other academy trust.

More than half (55%) of educators are not part of an academy trust. Around 4 in 10 (39%) are involved in one, and 6% do not know.

Q20. Are you part of a multi-academy trust (MAT) or other academy trust?

Yes	32 (39%)
No	46 (55%)
I don't know	5 (6%)

In Question 21, we asked educators where they are based.

Yorkshire and the Humber is by far the region where most of our educator contacts are based, with 35% coming from this part of the country. Around 1 in 6 (15%) are based in London, with those who remain spread fairly evenly across the North East (6%), North West (5%), East Midlands (5%), West Midlands (5%), East of England (5%), South East (6%), South West (7%) and Scotland (6%). Two respondents (2%) are based in Northern Ireland, one in Wales (1%) and one in the Isle of Man (1%).

Q21. Where are you based?

North East	5 (6%)
North West	4 (5%)
Yorkshire and the Humber	29 (35%)
East Midlands	4 (5%)
West Midlands	4 (5%)
East of England	4 (5%)
London	12 (15%)
South East	5 (6%)
South West	6 (7%)
Scotland	5 (6%)
Wales	1 (1%)
Northern Ireland	2 (2%)
Isle of Man	1 (1%)

In Question 22, we asked educators whether their school has been affected by road death or serious injury.

A quarter (25%) of educators said their schools had been affected by road death or serious injury and 72% said they had not. Some respondents appear to have skipped this question as the percentages do not add up to 100%.

Q22. Has your school been affected by road death or serious injury?

Yes	21 (25%)
No	60 (72%)

In Question 23, we asked educators whether they would consider fundraising for a road safety charity at their schools.

Almost 6 in 10 (57%) educators would consider fundraising for a road safety charity and 38% would not. Some respondents appear to have skipped this question as the percentages do not add up to 100%.

Q23. Would you consider fundraising for a road safety charity at your school?

Yes	48 (58%)
No	31 (37%)

Appendix 8: Summary of focus group contributions

Focus groups 1–3

Focus group 1: Nine primary school teachers including teachers of EYFS, KS1 and KS2.

Focus group 2: Four secondary school teachers including a Head of Humanities and teachers of KS3, KS4 and KS5.

Focus group 3: Five educational consultants with 124 years combined experience working in education and 40 years combined Headship experience.

The first three focus groups were established and participated in face-to-face meetings:

Focus group 4

Focus group 4: Seven educational experts including university research academics, educational authors and educational business owners:

- Dr Catherine Purcell – Cardiff University
- Professor Don Passey – Lancaster University
- Professor Simon Murphy – Cardiff University
- Sue Williamson – The Schools, Students and Teachers Network
- John Haslam – Institute for Effective Education
- Ross Morrison McGill – Teacher Toolkit
- Stephen Greene CBE – RockCorps

See page 52 for biographical details.

Focus group 4 participants were interviewed over the telephone.

Key discussion points (all focus groups)

- Explanation of the safe systems approach to road safety
- How children currently learn about road safety and safe and healthy mobility in schools
- Resources that are currently used to teach this subject

- Other resources available, including ‘Think!’ resources and resources for students with special educational needs and disabilities (SEND)

Barriers to teaching road safety in schools

- Specific road safety issues/goals within their own locality/community
- How teaching about road safety and safe and healthy mobility aligns with current curricula and learning objectives
- How development of government policy translates to learning requirements for different age groups and abilities (including those with SEND)
- How teaching about road safety and safe and healthy mobility could be delivered in a learning environment for different age groups and abilities
- How to ensure clarity about the safe systems approach to road safety concepts and learning at each age/phase
- Relevant curriculum guidance to consider
- Features to be included to ensure that new teaching resources:
 - Are user-friendly and easy to access and follow (design/layout)
 - Will fit into a busy timetable/curriculum
 - Provide clarity about safe systems concepts and learning at each age/phase
 - Provide clear links to other curriculum subjects
 - Are engaging for all children
 - Are purposeful/meaningful
 - Are of excellent quality
- Whether the teaching of road safety and safe and healthy mobility should be made statutory
- Relevant evidence-based pedagogical/teaching and learning educational theories to consider
- Any other evidence-based theories relevant to the project suggested by the groups

Appendix 8 (contd)

Key recommendations from focus groups 1 and 2

EYFS teachers

- Design creative, interactive practical resources that link to the 'Development Matters' guidance.
- Include ideas/activities/practical resources for continuous provision so that they will be used more frequently and also large scale, interactive props for outdoor use.
- Relate resources to real life situations eg: going on a trip, walking around the local area, walking to school or real life situations/stories that children can relate to. Include fun, colourful characters.
- Provide songs, short films, role play ideas and prompts and questions for discussions.

KS1 teachers

- Provide access to resources via a very simplistic and easy to navigate website.
- Create a progression map detailing key concepts and learning objectives across key stages that link to 6 half hour lessons.
- Ensure lesson plans are to the point and simple with accompanying powerpoints, videos, resources/activities, worksheets etc.
- Highlight hyperlinks to these resources on key documents. Add links to other KS1 curriculum areas and objectives.
- Include vibrant, cartoon characters that the children get to know and follow throughout their safe systems journey.
- Provide examples of short/simple case studies – in the form of videos (eg: driver, pedestrian, first responder, nurse/doctor etc involved in collision).
- Provide a variety of different types of resources and interactive activities – not just worksheets.
- Include suggestions for outdoor activities and expeditions in the local area ensuring teachers are able to edit resources to reflect their locality and children's needs.

KS2 teachers

- Provide 6 X 30 minute lessons to use sequentially over a Road Safety Week or over a half term, or a school year.

- Supply a complete pack (lesson plans, Power points, resources) for teachers to access and follow OR access as a bank of activities under different headings alongside a cross-curricular guide.
- Highlight links to high quality assemblies.
- Provide prompts/suggestions for circle times/discussion in class.
- Ensure everything created is compatible with Internet Explorer and Chrome, Powerpoint, Activ and Smartboard.
- All resources should take into account children with dyslexia and be inclusive of children with other common SEND.

KS3–KS5 teachers

- Ideally the resources should be cross-curricular to ensure the subject is really embedded into the curriculum and is not tokenistic. However, unless/until teaching about road safety and safe and healthy mobility is made a statutory requirement, lessons to 'pick up and follow' would be useful for those teaching formal PSHE lessons.
- Any pick up and teach lessons would need to be of exceptional quality to engage children providing a range of different resources such as power points, short videos/films, quizzes etc.
- Suggest grouping resources together by age first, then type – eg: films together. And with each resource it should be clear which road safety objective it relates to and other cross curricular links ie: Learning Objectives related to core elements of safe systems and how these link to the secondary curriculum. Important to really signpost how they connect.
- Learning needs to be based on reality and some of it needs to be hard-hitting – depending on a child's age.
- Resources need to be thought provoking.
- Using mobile phones and texting as pupils walk is a key issue. Ensure resources adequately focus on this.
- Recommend more resources for KS5 children as they approach driving.

Appendix 8 (contd)

- All resources need to be glossy/slick/ eye-catching/ 'cool' in design to engage children - the digital layout and design must shout out high quality with any downloads being graphically appealing to the age group.
- Any presentations and videos must be well-paced and use state of the art appropriate technology and be challenging in the way they are presented. Children can cope with challenge.

Key observations and recommendations from focus group 3 (educational consultants)

There is no uniform approach to the teaching of road safety and safe and healthy mobility as it is not statutory. Most schools currently spend a minimum amount of time teaching road safety which is currently taught inconsistently across settings. It will be difficult to convince leaders they need to broaden what they currently teach about road safety to include safe system unless it's made statutory. Schools currently teach through many different ways - for example junior road safety officers in some schools/local authorities, cycle training, occasional assemblies and activities during Road Safety Week.

The subject (road safety) is not properly integrated into schools' curricula and is often more of an add-on. It needs to be seen as an essential life skill and needs to be made statutory before schools will go beyond teaching about road safety and properly invest in the teaching of the safe systems approach. Can't be alarmist or tokenistic about this. It has to be done properly.

Whilst it is not statutory, schools will be more likely to use something that they pick up and run with rather than the weighty task of integrating into their curriculum.

- Consider how to make 'The safe systems approach' title more child-friendly.
- Teaching resources should include Powerpoints, videos, activities, assemblies, workshops for parents.
- Create a series of six PSHE lessons per key stage to be delivered in any year according to the schools' curricula.
- Eventually create a cross-curricular guide for schools to use to inform their own curricula.
- Link to key aspects of the National Curriculum and maximise opportunities to include objectives from other subject areas. Consider the new 2020 PSHE Guidance and associated Programmes of Study written by the PSHE Association as recommended by the DfE, the non-statutory Citizenship Guidance for KS1 and KS2 and the statutory Citizenship Guidance for KS3-KS4.
- Create posters for each aspect of safe systems.
- Use a 'safe systems' symbol for each of the key aspects, including on the website so that educators become familiar with these - also supports less able pupils who need more visual symbols.
- Create a safe systems App for children to use on class iPads or even phones - games, quizzes, videos, etc
- Need to tackle the current barriers: Teachers' subject knowledge of Safe Systems and the fact that this is currently not statutory.
- Recommend a 3 tiered approach:
 1. Change Road Safety Week to Safe Systems Week (different more catchy child-friendly name?) - Lessons including each aspect of Safe Systems. Powerpoint, video, activity. Assembly. Workshops for parents. Links to PE/dance.
 2. A series of PSHE - 6 lessons per key stage to be delivered in any year according to the schools' curriculum
 3. A cross-curricular guide for schools to use to inform with their own curricula
- Need to implement in a progressive way because teachers need to develop their knowledge skills and confidence over time regarding new material. If it is delivered in a manner that can be built on, it is more likely to be successfully implemented in schools. Tier 1 is a good foundation for tier 2 and then 3. And this in itself is a good foundation for if and when things become statutory.
- Teaching resources must be inclusive, incorporating differentiation and not need a high level of literacy
- See the book 'How we learn'... about how knowledge is maintained. One-off lessons must be spaced learning, revisited at various points to consolidate knowledge.

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- Reading material should be dyslexia-friendly – cream background and blue text.
- Provide written material in an editable format so teachers can change font and text size, e.g. for pupils with dyslexia or visual impairment.
- Clear layout – sub-headings, glossary/index. Not big blocks of text. Have key technical vocabulary linked to glossary.
- Consider prior learning – what would pupils need to have learned the year before? Pre-learning – for less able children who need a head-start and learning up front. Provide opportunities for a brief ‘lesson before a lesson’ (mini-lesson) where pupils can e.g. click on bold words and see images etc.
- Consider audio resources for children with SEND – the ability to cut and paste into an associated programme.
- EYFS/SEND – sensory, visually stimulating, concrete, tactile equipment.
- Link to Maths – good problem-solving/reasoning skills.
- Blooms Taxonomy – hierarchy of skills. Enquiry side of science – developing these skills for the same reason.
- Consider general reasoning skills – dialogic and Socratic reasoning – being able to build on other peoples’ thinking and make connections orally.
- Include opportunities for evaluation. E.g. ‘How do you apply your learning in your own life? Reflection/what behavior will change?’
- There needs to be more inclusion/more interaction with parents, e.g. parent workshops.
- Think! is well known from TV ads. There are lots of organisations/charities promoting safe and healthy mobility. Suggest a coordinated approach with extensive marketing.
- There is a growing body of evidence around co-production with children and key stakeholders which helps to ensure that any resource is fit for purpose.
- When developing resources that go beyond raising awareness their effectiveness should be tested.
- Re: testing of resources: Wales would be a good place to carry out tests as there is the whole range of geographical expanses, variability in terrain, different socio-economic areas, rural areas and cities. Also, Cardiff University has very good links with schools. Would be good to see some research coming out of Wales as it’s often driven by England.
- Different curricula across the UK. Look at the curricula across the four nations.
- There has to be buy-in at government level. For leaders in schools – what gets measured - gets done (re: OFSTED).
- There must be a focus on campaigning for this subject to become statutory if schools are going to adopt it fully in their curricula. Ensure that messages to policy makers are targeted at their interest and concerns from a political level. Why would this be a good thing... including the health and economic benefits. How much impact and difference would it make if this was made statutory? If children are taught about the safe systems approach to road safety, how will this change overall statistics? Implement in a pilot...? Monitor any changes within the pilot. This would provide more conclusive evidence to support the case for it becoming statutory.
- The challenge with any policy that comes out is how it is translated at a local level into practice. Any developments in policy regarding teaching of road safety need to include support for teachers translating guidance into practice. Changes occur constantly and teachers are under massive pressure, expected to adapt their practice in line with the latest policy. This is where variability or lack of adoption happens.
- EEF recommends learning focuses on metacognition rather than just cognition. Include these principles in the new resources.
- Ensure any technological resources are age-appropriate.

Key observations and recommendations from focus group 4 (educational experts)

This group broadly agreed with and confirmed the recommendations of focus groups 1 – 3. Additional recommendations were as follows:

- Skills and knowledge should be progressive and based on the strong evidence from developmental psychology such as Piaget and Vygotsky.

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- Do consider the use of mobile devices when creating the resources and how they could have value.
- Ensure all resources are compatible with the most commonly used VLEs. Many schools use Google Classroom and Office 365, Moodle and Frog. The vast majority of schools in Wales use LP Plus.
- Consider blended learning when creating the resources, especially in the light of Covid-19.
- Once the new resources are ready to be shared, have a group of schools/teachers trial the new material. They can then say how this best fits within current curriculum provision and what the impact has been before its marketed.
- Consider the use of social media for marketing purposes, e.g. there are 800 million users of all ages subscribing to TikTok. How could marketing make better use of such channels for promoting this subject including social influencers and celebrities?
- Teachers visit websites and after 10 seconds on a site generally move on if their attention/interest is not immediately captured. The average reading time is 1.5 minutes. Need buy-in from teachers – they need to see and understand what you're offering in 300-400 words maximum.
- Consider the Spiral Curriculum (Bruner) – where key concepts are revisited and built upon through different contexts over time to better-concrete learning.
- Wales still has a national structure around healthy schools. Active travel is a key part of promoting health in schools through The School Health Research Network in partnership with the Welsh Government. Currently involves every secondary school – hoping to expand into primary school. There is an assessment of school health every year. Results are benchmarked against national data. What promotes active travel is assessed and feedback for schools is provided. Consider making connections as safe systems teaching resources may be of relevance here.

- Causes for which secondary+ aged pupils are most engaged with currently are:

- Mental health and wellbeing
- Environment/climate change
- Homelessness
- LGBTQ+ rights.

Consider how to make links with these causes and how to make safe and healthy mobility appealing to this age group.

- When creating or marketing resources for older pupils, consider how to overcome common barriers when trying to engage secondary age+ pupils in volunteering to make a positive contribution to society: No one's asked me; Their perception of 'I don't have time'; Not seeing the relevance of what skills they are going to put in their CV.
- Suggest a balance between helpful and entertaining content. Must not be too much of one or the other either way. Much be a balance between the two.

Focus group 4 – biographies

Dr Catherine Purcell – Cardiff University

Catherine is a psychologist and reader in occupational therapy. She specialises in research that explores the link between perception and action in natural contexts, such as driving and road crossing. Her most recent study explored the efficacy of an iPad-based road safety educational game (Virtual Road World) for children with Developmental Coordination Disorder (DCD, sometimes referred to as Dyspraxia).

Professor Don Passey – Lancaster University

Don is a senior lecturer at Lancaster University specialising in teaching and learning outcomes arising from the use of leading edge technologies, in primary and secondary schools, higher, adult and professional education, considering development across the lifespan (lifelong learning). His most recent studies include identifying ways that mobile technologies are used by young people and teachers in classrooms and exploring implications of computing in the curriculum.

Appendix 8 (contd)

Professor Simon Murphy – Cardiff University

Simon is professor of Social Interventions and Health, the Director of DECIPHER and Lead for the Schools Health Research Network. He particularly focuses on understanding and explaining young peoples' health and health related behaviours within their social context, drawing on socio-ecological frameworks and the evaluation of theoretically driven complex public health improvement initiatives, with a particular concern for the social processes and contextual influences that impact on implementation and effectiveness.

Sue Williamson – The Schools, Students and Teachers Network

Sue Williamson is Director and Chief Executive of SSAT (The Schools, Students and Teachers Network). She has worked in education for over thirty years with a particular focus on leadership, innovation and the personalised learning agenda.

John Haslam – Institute for Effective Education

Jonathan Haslam is the Director at the Institute for Effective Education. His work is in the area of research dissemination and engagement. He is the editor of Best Evidence in Brief, the IEE's e-newsletter published each fortnight, which goes to nearly 15,000 subscribers around the world. He is also the editor of Better: Evidence-based Education, the IEE's magazine, which aims to get education research into the hands of the people who need it, particularly teachers, educational leaders, and policy makers.

Ross Morrison McGill – Teacher Toolkit

Ross has worked in over 170 schools, colleges and universities across the U.K., including schools in Belarus, Canada, Cyprus, China, Germany, Malaysia, Spain, Switzerland and the UAE. Known online as @TeacherToolkit, he is the 'most followed educator on social media in the UK', he has built one the most influential education websites, sharing resources with 11+ million readers across the world and has sold over 60,000 books. In 2015, he was nominated as one of the '500 Most Influential People in Britain' by the Sunday Times.

Stephen Greene CBE – RockCorps

Stephen is the founder and CEO of RockCorps, a pro-social production company that uses music to inspire young people to volunteer and get involved in their community. To date, over 160,000 volunteers have attended more than 50 live concert events, featuring music artists such as Lady Gaga, Diddy and Rihanna whilst giving over 600,000 hours to volunteering at more than 2,500 global charities.



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- Emma Wilkinson – Year 2 teacher, Geography & History Leader
- Keeley Leather – Year 3 teacher, RE leader
- Ben Hulburt – Year 4 teacher
- Greg Pursehouse – Year 4 teacher
- Samantha Brennan – Year 5 teacher, Science Leader
- Charlotte Staines – Year 6 teacher, Computing Leader
- Andy Taylor – Secondary School Headteacher
- Rachel Smith – Secondary Head of Humanities, KS3 – KS5
- Dave Needham – Secondary Head of Geography (AHOF), KS3 – KS5
- Hannah Barker – Secondary Assistant Head of Science, KS3 – KS5
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- Johnathan Haslam - Director at the Institute for Effective Education.
- Professor Simon Murphy - Professor in Social Interventions and Health, Director DECIPHer and Lead for the Schools Health Research Network. Cardiff University.
- Sue Williamson - Director and Chief Executive of SSAT (The Schools, Students and Teachers Network).
- Ross Morrison McGill – Director of Teacher Toolkit. Educational Author and influencer.
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