

Eco-Schools Inspiration

Transport



Teaching
Resource



KEEP
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ECO-SCHOOLS



Contents

Transport: Introduction 03

Case Study: Oakgrove Integrated Primary 04

Curriculum Links and Skills 09

Primary Activity Ideas 10

Post-Primary Activity Ideas 12

Other Links 14

Click on the link to go to the page

Click on the banner within this document (top left) to return to the Contents page





“ THIS IS A FANTASTIC OPPORTUNITY FOR OUR SCHOOL TO WORK TOWARDS BECOMING MORE ENVIRONMENTALLY SUSTAINABLE BY REDUCING CARBON EMISSIONS CAUSED BY CAR TRAFFIC AND WE WILL BE USING THE CHALLENGE AS A MEANS TO ACHIEVING OUR NEXT ECO-SCHOOLS GREEN FLAG AWARD. ”

LINDA MCKEE, ANTRIM PRIMARY SCHOOL

Introduction

Young children today have far less freedom than their parents had at the same age. Fear of traffic and stranger danger, combined with the overall increase in general car use and ownership are leading to an increasing number of parents taking their children to school in the car. This has a number of consequences for pupils and staff, particularly in terms of pupil health and well-being.

Walking and cycling are excellent forms of physical activity and the journey to school can make an important contribution to increasing these activity levels. Patterns of activity are set in early childhood, so early lack of exercise can lead to a higher risk of future obesity, high blood pressure, poor psychological well-being and coronary heart disease. Walking and cycling can help children to gain confidence and make friends, helping both to increase independence and traffic sense. Current research also suggests that more active children arrive at school more alert and focused and achieve better academic results.

YoungTransNet surveys show that many young people would like to travel in a more sustainable way, with 30% of them saying they would like to cycle to school. Statistics from the Department for Transport, however, show that currently only 1% of them do. Surveys also show that over half of all primary pupils live within a mile of their school, yet one-third are driven there.

Curriculum links with transport can be made in English, Maths, ICT, Science, Design & Technology, Art and Design as well as literacy and numeracy. The geography curriculum makes specific reference to road traffic, road safety and sustainability.

Getting started

Each school is different, with its own local problems and possible solutions. Developing a school travel plan can help ensure the complete situation is considered and that appropriate action is taken.





School Travel Plans

Schools can meet the main requirements of the Eco-Schools transport topic by drawing up a school travel plan. A school travel plan is a package of ideas and actions drawn up by the school community to promote safer walking, cycling and shared transport to and from school. In developing a travel plan, school communities show a commitment to promote sustainable travel.

Using a school travel plan, children, parents and school staff are encouraged to think about the environment and lead fitter and healthier lifestyles, through the promotion of Walk to School campaigns, using children's long term walking incentive schemes such as the excellent WOW (Walk on Wednesday scheme), and through the promotion of cycle training and the National Bike Week campaign. More information on School Travel Plans can be found on the Sustrans website.

Our growing use of cars has a variety of environmental, social and health consequences. Some are highly visible and directly relevant to everyday life.

For example, accident statistics show that our roads are dangerous, while traffic congestion has adverse effects on our health and well-being. Other impacts are less immediately obvious but no less important. For example, the gases and chemicals released by engines make a large contribution to global warming and air pollution. Indeed climate change is fast becoming the greatest challenge we face this century.

The more we use cars, the more the air becomes polluted. Exhaust fumes contain carbon monoxide, oxides of nitrogen, volatile organic compounds and particulates, all of which are harmful to health when released into the atmosphere. Soot particles cause lung damage, especially when they contain chemicals such as benzene.

Increasing amounts of urban traffic – partly caused by greater distances between home and places of work – have created fear of traffic. Because people feel less vulnerable driving compared with walking or cycling, more and more trips are being made by car. The resulting lack of exercise can cause problems for health and overall fitness.

- On average, one in seven children suffers from asthma; this figure increases to one in three in inner city areas.
- In slow moving traffic, pollution levels are higher inside cars than outside.
- Cycling or walking briskly for half an hour a day can halve the risk of heart disease.



- Sustainable transport is any means of transport which reduces fuel consumption, pollution and car use. This includes cycling, rail and bus transport, walking or even travelling by scooter.



Translink
Eco-Schools
Travel
Challenge



Translink Travel Challenge

Translink have teamed up with Eco-Schools to sponsor the Transport topic and encourage more schools to think about developing sustainable travel plans. Through this successful partnership we have produced downloadable classroom activity resources to support both Primary and Post Primary Schools to participate in the challenge.

Eco-Schools is encouraging schools, wherever possible, to move away from car usage to more sustainable ways of getting to school. A large number of Primary and Post Primary schools are already involved in the travel challenge but we would encourage all schools to make use of the Education Resources which are linked to the Northern Ireland curriculum.

“ THIS TRAVEL CHALLENGE IS A GREAT OPPORTUNITY FOR YOUNG PEOPLE TO LEARN ABOUT THE ENVIRONMENTAL, SAFETY, HEALTH AND COST-SAVING BENEFITS OF SUSTAINABLE TRAVEL. THERE ARE ALSO LESSON PLANS, ACTIVITIES AND WORKSHEETS, RAISING AWARENESS OF ENVIRONMENTAL ISSUES THROUGH ACTIVITIES THAT LINK TO CURRICULUM SUBJECTS. NOT ONLY ARE CHALLENGE PARTICIPANTS TACKLING THE SERIOUS ISSUE OF CAR CONGESTION AT SCHOOL GATES AND ITS ASSOCIATED SAFETY AND ENVIRONMENTAL RISKS, THEY ARE ALSO HELPING THEIR SCHOOL ACHIEVE THE INTERNATIONALLY-RECOGNISED ECO-SCHOOLS GREEN FLAG - A HIGHLY PRESTIGIOUS AWARD! ”

URSULA KELLEHER,
PR & PUBLIC AFFAIRS OFFICER, TRANSLINK



Case Study

School: <i>Oakgrove Integrated Primary School</i>	Teacher: <i>Honor Slattery</i>
No. of pupils: <i>448</i>	Eco-School status: <i>Green Flag</i>

Background Information

Q: Why did you choose Transport as an Eco-Schools topic? What was your Action Plan?

A:

- New bike shelter
- Working with Sustrans towards a Bronze Award
- Translink Travel Challenge
- Cross-Border Walk to School Challenge

Q: How do you integrate Transport into the curriculum?

A:

- Children using Google Maps to calculate distances from home to school for the Translink Travel Challenge
- Translink Curriculum Worksheets used in KS 1 and 2

Q: How do you co-ordinate with other teachers to ensure a whole school approach?

A:

- Information assemblies
- Whole school action days (WOW and COW Days)
- Teachers involved in action days such as cycle picnics
- WAU Inset for teachers.

Q: How did you encourage pupil participation? How did they have ownership of the project?

A:

- Taking part in assemblies
- Gathering data on transport
- Taking part in action days
- Cycle proficiency training
- Bike maintenance workshops
- Walking surveys
- Eco-Committee monthly meetings





Case Study

During Implementation of Eco-Schools Inspiration case study

Q: How will pupils/whole school benefit from the Eco-Schools Inspiration project?

A:

- Completing the 2014 Translink Travel Challenge
- Conducting and inclusion in surveys
- Attending bike doctor workshops
- Holding whole school assemblies
- COW and WOW (Walk on Wednesday) Breakfast
- SUSTRANS Assembly and Giro d'Italia Competition
- KS1 and KS2 lessons
- Taking part in Cycling proficiency training

Q: What is your overall aim and what actions are you going to take?

A:

- To encourage more sustainable and safer transport to school
- February-March-Survey on travel to school each day.
- Bike Doctor
- Whole school assembly
- COW (Cycle on Wednesday) and Bike it Breakfast
- WOW (Walk on Wednesday) and walkers healthy breakfast
- SUSTRANS Assembly and Giro d'Italia Competition
- KS1 and KS2 lessons
- Cycling proficiency



Q: How are you going to spend the £500 funding?

A:

- Bike Doctor workshop
- Action day breakfasts
- Prizes for transport competitions

Q: Are you going to receive any support or resources from parents, staff or outside agencies?

A:

- The school is taking part in the Translink Travel Challenge
- SUSTRANS are working with the school as part of their Bike It Programme
- Claudy Cycles have assisted the school with Bike Maintenance workshops
- The School has undertaken Cross-Border Walking challenges as part of National Walk to School Week





Case Study

Reporting on impact of action(s)

Q: Did you encounter any problems and, if so, how did you overcome them?

A:

- Ensuring that we had enough adult help for WoW breakfasts, walking bus etc.

Q: Is there any advice you could offer to schools undertaking the Transport topic? Do you have any useful suggestions for other teachers embarking on the topic?

A:

- Enlist the staff members and/or parents to help
- Prizes are a great encouragement
- Take lots of photos for displays and Eco-Noticeboard

Q: Has doing this topic driven other Eco-Schools ideas? What are your future plans regarding Eco-Schools?

A:

- Translink Travel Challenge
- Work towards a Sustrans Silver Award

Q: Has doing this topic driven other Eco-Schools ideas? What are your future plans regarding Eco-Schools?

A:

- Translink Travel Challenge
- Work towards a Sustrans Silver Award





Case Study

Transport Topic

Please compare the types of journeys by different travel modes to school for two periods over the duration of your transport topic i.e. at the beginning and the end.

School Travel Survey (total for all staff and students)

	Survey 1 – Date 12/03/14	Day of Action 1 (WOW)	Day of Action 2 (COW)	Survey 2 Date 25/03/14
No. of Journeys				
Walk	21	88	28	32
Cycle	3	14	35	8
Park n' stride		38	5	20
Bus/train	71	70	82	75
Carpool		18	25	28
Car	240	107	160	172
Distance Travelled (Miles travelled to school)				
By petrol car miles per year				
By diesel car miles per year				
By bus miles per year				
By train miles per year				
By bike/foot miles per year				

If you have taken part in any sustainable travel initiatives e.g. walk to school week or cycle to school week please outline details below.

Type of Day	No. of Days Held	No. of Participants
Walk to School	1	126
Cycle to School	1	35
Translink Travel challenge	20	72

If you have experienced no change or an increase in car journeys, please outline the reasons.

- Increase in school population/building size
- Change in school location
- Other, please specify _____

Any comments: On all of the days of action (Walk on Wednesday WOW and Cycle on Wednesday COW) there was a great atmosphere and everyone enjoyed breakfast together and a prize draw. On normal days where there is no special staff support there is less participation. This is partly due to the fact that the school is situated on the very busy Limavady Road, and that many pupils travel medium to long distances to school.



Curriculum Links and Skills

The Transport topic allows you to incorporate and promote **Thinking Skills & Personal Capabilities** and **Cross-Curricular Skills** into your lessons.

World Around Us Suggested Learning Intentions

(taken from W.A.U. strands on Northern Ireland Curriculum website)

Strand 1: Interdependence

'About the effects that people's actions have on the natural environment (S&T) (G); to be aware of how modern technology has influenced design and production of everyday objects (S&T) to be aware of some of the ways people use the environment every day (G); to recognise changes that people have made to the environment over time (H); how lifestyle choices can affect the health of themselves and others (S&T) some of the ways people affect the built and natural environment (G).'

Strand 2: Movement and Energy

'Some of the ways in which light and sound are used to keep us safe in road safety and our everyday lives (S&T); that the strength of a push or pull can make things speed up or move more slowly (S&T); how people in the past travelled from place to place (H); how people travel and products are transported from place to place in the locality (G); that weather affects the movement of people, goods and animals (G); to recognise how models and machines allow movement and how this has changed over time (S&T); how transport has changed over time (H). ways in which sound and light are used to communicate safety and danger (S&T); that different surfaces affect how easily things move over them (S&T); to recognise the development of renewable energy sources over time (G) (H); the advantages and disadvantages of renewable and non-renewable energy sources (G); about global energy issues (G); that the journey of a product can affect the environment both locally and globally (G).'

Strand 3: Place

'that human activity affects the environment, both locally and globally (G); that people can improve the places where they live (G); that there are differences between rural and urban lifestyles (G); about the ways in which people may conserve and change the environment both locally and globally (G); about the development of space travel (H); how place impacted on the lives and lifestyle of people in the past (H); about the similarities and differences in places (G).'

Strand 4: Change Over Time

'To understand about changes in their local area over time (H); similarities and differences in people's lives past and present (H); how long or short term climatic changes are impacting on our environment (G) (S&T); about how changes in the climate have been brought about (G); to recognise the continuity and change in lifestyles over time (H); about the role they have in conserving energy (G) (S&T); how developments in communication and transport have impacted on our world (H); about desirable and undesirable change at home and in the environment (S&T).'

Managing Information

Do a research project on transport habits. Examine how these are affecting the planet and how we can make decisions that improve the environmental impact of transport.

Thinking, Problem-Solving and Decision-Making

Investigate how people travel to school, can they improve the environmental impact of their journeys? What are the barriers to walking and cycling to school? Can these be overcome? What are the benefits of more sustainable modes of transport?

Using Mathematics

Survey school travel habits, use surveys to measure change of habits over time. Make graphs of schools travel habits.

Do a transport survey outside the school.
What are the busiest times?
How many people are in each vehicle?

Working with Others

Organise a walk to school event.
Organise a cycle to school event.
Invite police to school to talk about road safety. Invite Translink to school to talk about safety on buses.

Self-Management

Improve road safety skills and awareness. Take part in cycle training. Find out about safe routes to schools.

Communication

Inform the school about the advantages of sustainable travel to school using various communication methods.

Being Creative

Create slogans and posters to promote sustainable transport.

Using ICT

Use Google maps to map where people live and measure the distance of their journey to school.



Primary Activity Ideas

Language & Literacy

Writing

- Create a presentation promoting sustainable travel.
- Write a report on a WOW or COW day.
- Write an article for the school newsletter about Eco-Schools.
- Create poems such as an acrostic poem about sustainable travel.
- Write stories about your journey to school.

Talking & Listening

- Discuss video clips related to Travel.
- Interview bus drivers, school wardens about road safety.
- Invite the Police in to talk about road safety.
- Do a project about noises on the way to school.
- Share, respond to and evaluate ideas, arguments and points of view and use evidence or reason to justify opinions, actions or proposals, using sustainable transport as the theme.

Reading

- Gather articles about transport.
- Fiction and non-fiction books on transport.
- Find out about the impacts of transport on our environment.
- Collect a range of reading material for display which focuses on the transport topic.

Religious Education

- Explore the importance of plants, animals and rivers to human spirituality and wellbeing.
- Stewardship-Care for the planet, in particular the atmosphere.

Mathematics & Numeracy

Number

- Research how people travel to school and use these numbers to make graphs and calculate percentages.
- Undertaking counts of traffic outside the school.
- Use the four operations to solve more complex word problems and puzzles involving numbers and measures related to a transport investigation.
- Use balloons to show how much CO₂ is produced on an average car journey to school. A 4 km journey (2km to school and 2km home from school) would fill 60 balloons of CO₂.

Measures

- Undertake monitoring of travel habits in the school.
- Find out how far people live from school using different units of measurement.
- Find out how long journeys take using different modes of transport and calculate the overall speed. Walking = 4km/h; cycling 10km/h etc.
- Produce graphs on travel habits in the school.

Shape & Space

- Investigate your local area using Google maps and aerial photos. Draw safe routes to school.
- Go on a virtual journey around town using Google street view.
- Investigate why vehicles are certain shapes.

Handling Data

- Explore data gathered from the transport topic through graphs, diagrams, charts etc.
- Insert transport data into a prepared relevant computer database and interrogate.
- Discuss examples of travel data represented in newspapers, magazines and multimedia sources.
- Conduct a survey of travel habits to school.



Primary Activity Ideas

The World Around Us

Geography

- Research how people travel in different countries. How do children get to school in different countries?
- Investigate the atmosphere and how we can affect it by our use of fossil fuels.
- Use maps to take a closer look at the world around us.
- Investigate the Polar Regions, how is climate change impacting on these regions?
- Plan your journey to school.

History

- Investigate changes in travel habits over time.
- Research how did people get to school in the past.
- Do a project on the history of railways and canals.

Science & Technology

- Investigate energy use in vehicles. How has this changed over time, what is the future of transport?
- Explore forces, how do we move?
- Make land yachts.
- Research renewable energy sources.

The Arts

Art & Design

- Produce posters promoting sustainable transport.
- Have a school poster competition with the aim of designing posters to promote sustainable travel.
- Design a leaflet to promote sustainable travel to teachers and parents.
- Design a vehicle of the future.

Music

- Create musical sound story on your journey to school.
- Listen to music that tells stories of travel.
- Compose a sustainable travel rap or promotional song, use this to promote sustainable travel.

Drama

- Explore a range of cultural and human issues by using drama to begin to explore their own and others' feeling about issues, and by negotiating situations both in and out of role e.g. What is the best way to travel to school? What are the benefits of walking, cycling or taking the bus to school?
- Use the Transport theme to develop a range of drama strategies including freeze frame, tableau, hot seating, thought tracking and conscience alley.

Personal Development & Mutual Understanding

- Learn about the Highway Code.
- Invite Police to school to talk about road safety.
- Research how to stay safe on your journey to school.
- Explore safe routes to school.
- Survey seat belt use.

Physical Education

- Improve your cycling skills.
- Take part in a walking or cycling event.



Post-Primary Activity Ideas

Environment & Society

Geography

- Research the impact of transport on our climate, atmosphere.
- Research how people travel to school in different countries.
- Study travel habits nationally and locally. How has transport planning affected your area?
- Find out where people in the school are travelling from.
- Interpret maps and aerial photographs of the surrounding area, map safe routes to school.

History

- Conduct a project on how travel habits have changed over time.
- Research historical boat, railway and road transport in your local area.

Religious Education

- Explore links between religion and stewardship for the planet.
- Research religious iconography associated with vehicles from around the world.

Language & Literacy

English/Irish Medium with Media Education

- Carry out an awareness raising campaign, identify and describe issues such as the impact of increased carbon dioxide on the atmosphere.
- Write a newspaper article about the measures and initiatives that your school has adopted to reduce the impact of transport on the local and global environment.
- Link up with a Gaelscoil to explore their experiences of working on Eco-Schools.

Modern Languages

- Making and maintaining links with other International Eco-Schools.

Learning for Life & Work

Local & Global Citizenship

- Actively engage and participate in a local project/issue.
- Participate in an action project.
- Research the local and global implications of lifestyle choices.

Education for Employability

- Invite representatives of the community to take part in lessons. These could include non-teaching staff, parents, former pupils, local role models, entrepreneurs and particularly employers.

Personal Development

- Managing own personal health and safety in field and lab, sharing ideas and working as a team.

Home Economics

- Make some healthy snacks for a walking or cycling action day.
- Research what foods are best for sustaining physical activity.
- Assess the contribution sustainable travel can make to a healthy lifestyle.



Post-Primary Activity Ideas

The Arts

Art & Design

- Design posters promoting sustainable/active travel to school.
- Design futuristic vehicles.

Drama

- Use drama to begin to explore their own and others' feeling about issues, and by negotiating situations both in and out of role e.g. the pros and cons of leaving the car at home.
- Use the Transport topic to develop a range of drama strategies.

Music

- Composing and performing music in response to Transportation issues and in response to observations.

Mathematics

- Solve numerical problems relating to sustainable transport.
- Analyse the results of a traffic survey.
- Discuss, plan, collect, organise and represent data for the Eco-Schools Transport topic on how people travel to school and the distribution of students.
- Make graphs on how people travel to school.
- Discuss examples of transport data represented in the census, road safety statistics and multimedia sources.

Science & Technology

- Study the effect of exercise on the human body.
- Research the internal combustion engine, ask questions about its efficiency and possible improvements.
- Research alternative power sources for vehicles.
- Design a vehicle of the future.
- Research Peak Oil and its likely impact on modern civilization.
- Research Global warming, examining its causes and effects, what can we do to limit its impacts and adapt to changes in climate?

Physical Education

- Take part in responsible outdoor practical work.
- Keep an exercise diary.
- Before-school exercise classes.
- Develop an outdoor gym.
- Encourage pupils to walk, cycle etc. to school.



Useful links

www.translink.co.uk/ecoschools/



[Translink Travel Challenge](#)



[Eco-Schools delivery partners](#)



[Eco-Schools delivery partner resources](#)



[Eco-Schools document templates](#)



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