

Cycle training within the curriculum



CYCLING

Cycling is very versatile. It can be a sport, a relaxation, a means of transport, good exercise and a way to improved health and physical fitness.

Cycle training courses are designed to improve cycle control (part 1) and introduce riders to the basic manoeuvres needed when riding on the road (part 2). They will also raise awareness of potential hazards on the road and help children to make decisions regarding their own safety in traffic and their interaction with other road users.

Instructors often have difficulty in finding enough time to run courses both within the school day and after school. As it can be a valuable life skill cycling should not be seen merely as a useful time-filler or an extra, but as an integral part of the school timetable.

Why not consider cycling as an option for the physical education programme of study at Key Stage 2 ?

It can fit in quite easily and be used as an alternative to other more established activities. Most children own or have access to a cycle, and can participate on an equal level.

This leaflet aims to show how cycling, cycle safety and the bicycle can be used to support various programmes of study in the Curriculum. Often these activities overlap several areas of work.

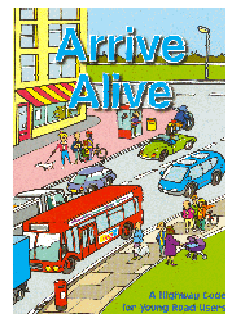
Activity suggestions have been grouped under the most appropriate subject headings. No great details have been given, merely hints. However the physical education programme has been dealt with in more depth.

Italics have been used to show direct references to the knowledge, skills, understanding and breadth of study mentioned in the primary curriculum handbook at key stage 2.

SUBJECT AREAS

Literacy

Reading and discussing Arrive Alive
(the highway code for young road users) and cycling posters.
[See dft website for lesson plans and worksheets]



English

Speaking, listening, reading and writing.

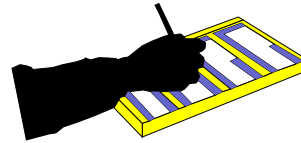
Write, tell or listen to a story
that has a bicycle as its central theme
about an accident involving a cycle
describing a cycle ride

In pairs read instructions on cycle check form and carry them out.
Watch a video on cycle safety and write a review. [Bike to Basics, On yer Bike]

Act out scenes suggested by the cycling section of Arrive Alive.
Discuss reactions to events.
Put events in order.
Interpret information – what could happen next: hazard perception.
Produce a set of rules for cycling on road, off road or stunts.
Non verbal communication – road signs and signals, traffic lights and road markings.

ICT

1 *find things out; gather information*



Computer

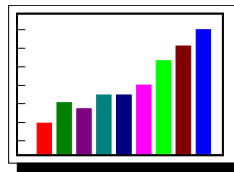
Use a computer to do some of the other activities listed.

Use different software to present findings:-desktop publishing, spreadsheets, database.
Use drawing or mapping software.
Use a cd rom to discover about cycle safety and the highway code.
[Bike It and Solutionquest Cycling]
Produce survey forms.
Use email to conduct survey.
Collate data.
Investigate cycling on the Internet.



Mathematics

Collect and interpret data
e.g. cycling accident statistics.



Conduct a class survey of cycles: who owns one ; details of type, make, colour, gears; where they ride; have they passed a training course, would they like to ride to school, would parents agree, if not why? Extend to include whole school, friends, family, parents.
Produce forms and collate replies.
Investigate traffic flow near the school.

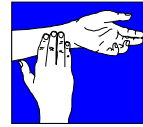
Consider shapes and angles

Look at road signs and markings.
Consider junctions and angle of travel.
Compare large / small, near / far; fast / slow .
Look at journey times -is shortest route the fastest /safest?



Science

Sc2 2c *circulation, pulse rate, exercise*
 2e *movement and muscles*
 2h *health exercises for good health*



Sc4 1 *electricity simple circuits*
 2 *forces and motion c-friction,*
 3 *light and sound a-c effects of light, reflection*

Movement, friction, stopping, uphill and downhill travel – gears, tyres, brakes, road surfaces, stopping distances.

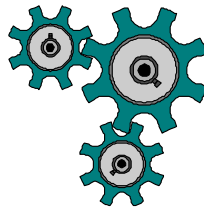
Use of materials -conspicuous and protective clothing – fluorescent and reflective.

Effects of light and weather conditions on safety.



How lights, dynamos, reflectors, helmets work.

Cycles and gears.



Senses:

- sight – when cycling where can you see, blind spots, camouflage,
- sound – what sound can tell you: speed and type of vehicle, warning systems: compare bell, horn and shout.

Compare movement of different vehicles.

Safety, risk.

Pollution, human influence on the Earth.

Geography

1 b *collect evidence*
 c *record views*
 e *communicate information*
2 c *use maps and plans*
 e *draw maps*
 g *decision making*
3 e *identify how and why places change*
5 a *how people improve or damage the environment*



Map local area, showing safe and unsafe places.

Mark cycle routes, both existing and proposed.

Show route to cycle to primary school / secondary school.

What problems are there – parked cars, roundabouts, no street lamps?

What would make it safer e.g. toucan crossing, cycle path?
How could these engineering measures improve the area?
Table top models.

Do the needs of cyclists conflict with those of other road users?
Did parents cycle? How have roads changed? Why?

Design and Technology

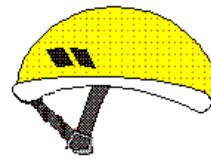
5 *evaluate familiar products*

Look at bicycle design.



Investigate cycle helmets -how constructed and tested.

Design a cycling accessory.



History

11a *Victorian Britain*

Victorian transport, especially the history of the bicycle.



11b *Britain since 1930*

Cause and effect – how cycle use has altered and why; are there different risks now than before?

Changing use of the bicycle worldwide.

PSHE

1 a *pupils should express their opinion on issues that affect themselves and society.*
Discuss cycling.

c *face new challenges positively*
Learn to cycle safely.

2 a *research and discuss topical issues*
Investigate safer journeys to school.

b *why and how rules and laws are made and enforced*
Look at the highway code and laws for cyclists.

3 a *benefits of exercise.*

Explain why cycling is good exercise – it uses many different muscles, helps breathing, improves heart rate.

3 e *recognise different risks in different situations and then decide how to behave responsibly.*

Emphasise sensible road use and the possible outcome if this is ignored.

f *pressure to behave in an unacceptable or risky way*

Why might they not keep to the highway code?
Who might influence them?
Can they set an example to others, either good or bad?



4 *develop good relationships and respect differences between people.*

4 a *their actions affect themselves and others, care about other people's feelings and try to see things from their point of view.*

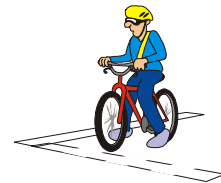
Discuss the possibility of failing a cycle course if they cannot reach the standard.
Not every one is good cyclist. They need to have patience and be sympathetic with others, helping and encouraging them.

How can their behaviour when cycling affect others?

5 a *take responsibility for identifying safe, healthy and sustainable means of transport to school.*

l *prepare for change – transfer to secondary school*

Discuss cycling to school – routes, risks and safeguards.



Health

Responsibility for self and community.

Decision making, peer pressure.

Identifying and managing risk.

Health and safety – hazards, risks and risk control.

Rules

Why are there rules?

Discuss the possible outcome of ignoring the rules set down in the highway code.

Who may suffer? Who disobeys rules, why?

What can influence your decision? Consider helmet wearing, cycling on pavements.

Safe people and places – who can help you? – police officers, traffic wardens, school crossing patrols. What do they consider safe places to ride or to cross the road.

Growing and changing. Cycles are toys for younger children but become vehicles for older ones. How and where they ride will change as they grow older and gain experience.



Environment

Green issues - why is cycling considered a good means of travel?

Art and Design

- 1 a *record from experience, imagination, observation*
c *collect images and other information*
5 c *Use a range of materials and processes*



Use the design of a cycle in a range of materials
e.g. pasta picture, pipe-cleaner model, garden bike, etc

Consider the shapes and patterns in a bicycle.
Experiment with various tyre tread patterns.



Physical Education

Key Stage 2

Knowledge, skills and understanding

Acquiring and developing skills

- 1 Pupils should be taught to:
- consolidate their existing skills and gain new ones
 - perform actions and skills with more consistent control and quality.



Selecting and applying skills, tactics and compositional ideas

- 2 Pupils should be taught to:
- plan, use and adapt strategies, tactics and compositional ideas for individual, pair, small group and small team activities
 - develop and use their knowledge of the principles behind the strategies, tactics and ideas to improve their effectiveness
 - apply rules and conventions for different activities.

Evaluating and improving performance

- 3 Pupils should be taught to:
- identify what makes a performance effective
 - suggest improvements based on this information.

Knowledge and understanding of fitness and health

- 4 Pupils should be taught :
- a) how exercise affects the body in the short term
 - b) to warm up and prepare appropriately for different activities
 - c) why physical activity is good for their health and well being
 - d) why wearing appropriate clothing and being hygienic is good for their health and safety.

Breadth of study



Outdoor and adventurous activities

- 11 Pupils should be taught to:
- a) take part in outdoor activity challenges, including following trails, in familiar, unfamiliar and changing environments
 - b) use a range of orienteering and problem solving skills
 - c) work with others to meet the challenges.

“During key stage 2 pupils enjoy being active and using their creativity and imagination in physical activity.

They learn new skills, find out how to use them in different ways and link them to make actions, phrases and sequences of movement.

They enjoy communicating, collaborating and competing with each other.

They develop an understanding of how to succeed in different activities and learn how to evaluate and recognise their own success.”

National Curriculum Handbook

Young Cyclist Training

Acquiring and developing skills

Off-Road

Designed to improve cycle control and introduce riders to the basic manoeuvres needed when riding on the road.

The exercises will *teach new skills or consolidate existing ones*.

On-Road

Designed to transfer to and *consolidate skills* on the road in real life situations.

The exercises are designed to encourage children *to perform actions and skills with more consistent control and quality*.

Evaluating and improving performance

By watching others, *children can identify what makes an effective performance and suggest how it can be improved.*

E.g. looking behind for safety; signals made with the whole arm at shoulder height

Selecting and applying skills, tactics and compositional ideas

Skills are developed, selected and applied throughout skills and on road courses.

There are *rules, strategies and tactics* for both sections.

Skills course – no messing about; ride sensibly, when told; exercises are to improve skills in safe environments only; do not ride on pavements; racing is for tracks etc.

On road – think, look, signal, move, consider safety, rethink, speed of self / others, rights of way, rules of road, etc.

Knowledge and understanding of fitness and health

Cycling is good all round exercise. Can be done at own pace.

Do not do too much too soon – pulled muscles can result if exercise is strenuous from cold; warm up first.

Safety – wear a cycle helmet; also knee and elbow pads for stunts.

Suitable clothing – comfortable, visible: white, bright, fluorescent, reflective.

Unsuitable – loose, dangley or dark clothing, long, loose laces.

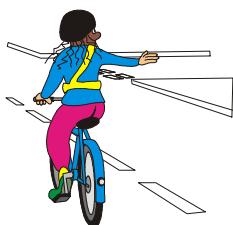


Outdoor and Adventurous activities

E) *Following a trail in familiar, unfamiliar and changing environments.*

On-road work; environment changes at junctions, etc with other traffic, ride follows directions given.

By final day, rides can be longer; problem solving skills can be applied to cope with traffic etc.



Further information

Further information, ideas and links can be found on a number of web sites.

Herts Grid for Learning www.intra.thegrid.org.uk

Department for Transport www.dft.gov.uk

Road safety education in schools www.roads.dft.gov.uk/roadsafety

Curriculum lesson plans – www.databases.dft.gov.uk/primary/literacy/year_5/term_2
(Arrive Alive – cycling)

National Curriculum
Department for Education and Skills website www.dfes.gov.uk

Others

Hertfordshire cycle information www.hertsdirect.org/cycleweb

Stevenage cycle paths www.stevenage.gov.uk/cycling

British Cycling www.bcf.uk.com

(promoting get Set) www.sportengland.org

British Schools Cycling Association www.bsca.org.uk

Cyclist Touring Club www.ctc.org.uk

Renault www.safetymatters.renault.co.uk

BMW www.bmweducation.co.uk

Hertfordshire Road Safety Unit www.hertsdirect.org/roadsafety

If you have any queries on cycle training or cycling to school please contact

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