USING STEPOMETERS TO PROMOTE SUSTAINABLE SCHOOL TRAVEL

Classroom Activity

Aims:
To increase the proportion of pupils travelling to school by sustainable means, leading to health and environmental benefits.

To encourage pupils to recognise the benefits of walking.

Reasons for doing a stepometer challenge in school:

- Pupils enjoy wearing a stepometer.
- Pupils are motivated to do more walking each day.
- Parents and teachers as well as pupils can get involved.
- Good links to the curriculum.
- Plenty of resource material available.
- Works well across all age groups from Foundation to Secondary pupils.
- Encourages sustainable travel.
- Good links to other initiatives such as Healthy Schools, Sports etc.

Activities:

- Counting steps
- How many steps in 1 minute, 2 minutes, 5 minutes…?
- How many steps taken each day?
- Keep a record of the number of steps taken.
- Display the results and compare with others.
- Analysis of data and discussion of results.
- Consider how to increase the number of steps taken.
- Link to other health promotion activity such as measuring pulse rate and healthy heart.
- Link to other travel to school initiative such as Walk to School Week or Walking Bus.
- Walk 10,000 steps a day.

Stepometers

What is a stepometer?

Stepometers are special gadgets designed to count the number of steps we take. A stepometer can also be known as a pedometer. It is a simple battery powered digital device. The device is attached to the person's waist and uses motion sensors inside to count the number of steps taken. They are readily available from sports shops and educational suppliers.

Why wear a stepometer?

Most people are aware that walking each day has health benefits. Encouraging people to use their cars less and travel in more sustainable ways has many advantages, such as cutting down pollution as well as social benefits.

Wearing a stepometer is an easy way of measuring how many steps each person does and recognizing the benefits of walking.

What about the 10,000 steps message?

You may have heard that the target number of steps per day is 10,000 steps. Whilst 10,000 steps was the common figure to aim for (it's a catchy, easy to remember target), research demonstrates that you will reach the recommended physical activity targets (30 minutes most days of the week) by working out how many steps you do on a normal day and then try to increase it gradually.

A 'step by step' guide to organising a stepometer activity in school

You will need:
Stopwatch or clock
Stepometers for each pupil
Record sheets

How many steps?

- Talk to the class about how many steps they walk each day:
  How do they usually travel to school?
  How many steps do they think they do when they do different activities (e.g. getting to school, playtime, after school clubs).
- Either outside or in a large indoor space, ask the children to predict how many steps they think they do in 1 minute. Then time them for 1 minute and get them to count their steps as they walk around.
- Repeat for 2 minutes.
- Discuss the results with the pupils (an average pupil will do around 100 steps per minute).
- You could record these results on a table.

Stepometer activity.

- Introduce the stepometers. Explain that they are special gadgets to count the number of steps they take.
- Explain how the stepometers work and that it is important to look after them.
- Explain that they will record how many steps they take.
- The pupils could now wear the stepometers around school or go out on an organised walk from school.
- At the end of the activity the pupils could compare the number of steps taken with the rest of the class, data could be collected and displayed and analysed.
- Discuss the benefits of walking for health and environmental reasons.
- Encourage the pupils to do more walking each day.

Stepometer challenge

- Ask the children how many steps they should do to keep fit and healthy? 10,000
- Tell the pupils that you are setting them the challenge of doing 10,000 steps per day
- Ask how they will achieve this? (Walking to school, at lunchtime, walking to a friends.)
- Give out the stepometers to be worn for a few days during which keep a record of the number of steps taken. (See record card).
- At the end of the activity the pupils could compare the number of steps taken with the rest of the class, data could be collected and displayed and analysed.
- Discuss the benefits of walking for health and environmental reasons.
- Encourage the pupils to do more walking each day.

Follow up activities:

The number of steps taken can easily be converted into distances.
Measure stride length and multiply by number of steps.
To change km into miles remember that 5miles =8km

Pupils could then work out which town or city is situated the same distance away as the total number of miles that they walked in a week.

The total distance walked by a class could be added up towards a target e.g Lands End to John O'Groats is 960 miles.

A footprint could be stuck up in the hall or classroom for every 10 miles walked.

Add up miles for WOW or Walking Bus schemes.

- Stepometer activities can be used with other health promotions such as measuring pulse rate, keeping a record of physical activity,

- Useful links and websites:

  www.schoolsonthemove.co.uk
  www.wiredforhealth.gov.uk
  www.teachernet.gov.uk/teachingandlearning/sd/focuson/sdtravel/
  www.bhfactive.org.uk
  http://schools.becta.org.uk

Stepometer Record Card

Name:_____

Class:_____

School:_____

Date:_____

Stepometer number:

Some points to remember

- ALWAYS wear you stepometer on your waist.
- Put it on every morning and take it off last thing at night.
- REMEMBER to check the steps each day and record on the chart.
- After you have recorded the number of steps, RESET the stepometer by pressing the reset button. Check that the display has gone back to zero.
- Please look after your stepometer.
- Please do not put you stepometer into water.
- Thank you.

DATE	STEPS	WALKING ACTIVITIES
TOTALS FOR WEEK		
AVERAGE PER DAY		

Please remember to return the stepometer to school

Links to National Curriculum Key Stage 1 & 2

Physical Education

KS1

Knowledge and understanding of fitness & health.
Pupils should be taught:
a) how important it is to be active.
b) to recognise & describe how their bodies feel during different activities.

KS2

Knowledge and understanding of fitness & health.
Pupils should be taught:
a) how exercise effects the body in the short term.
b) why physical activity is good for their health & well being.

PHSE & Citizenship

KS1

Developing a healthy safer lifestyle.
Pupils should be taught:
a) how to make simple choices that improve their health & wellbeing.

KS2

Developing a healthy safer lifestyle.
Pupils should be taught:
a) what makes a healthy lifestyle, the benefits of exercise & how to make informed choices.

Science

KS1

Pupils should be taught that:
2c) taking exercise & eating the right types & amounts of food help humans to keep healthy.
Living things Pupils should be taught to:
5c) care for the environment

KS2

Sc2 – life processes & living things humans and other animals.
Pupils should be taught:
c) that the heart acts as a pump to circulate the blood through vessels around the body, including through the lungs.

d) about the effect of exercise and rest has on pulse rate.
h) about the importance of exercise for good health.

Geography

KS1

Knowledge & understanding of environmental change & sustainable development
Pupils should be taught to:
5b) recognise how the environment may be improved & sustained.

KS2

Knowledge & understanding of environmental change & sustainable development
Pupils should be taught to:
5a) recognise how people can improve or damage the environment.

Maths

KS1 & 2

The stepometer lesson fits into the National Numeracy Strategy by covering the following:

- **Using & Applying Maths**.
- **Numbers & the Number System:** counting, reading & writing numbers, estimating, predicting, averages.
- **Calculations:** using a calculator, checking results are reasonable.
- **Solving Problems**.
- **Handling Data:** collecting, organising, presenting & interpreting data using graphs and charts.

The stepometers develop the following mathematical skills: Counting, Measuring, Calculating, Estimating, Recording in tables & graphs.

Links to National Curriculum Key Stage 3

Mathematics

Ma2 Number and algebra.

1a select appropriate strategies to use for numerical problems.
1d select efficient techniques for numerical calculation.
1e use checking procedures to monitor accuracy of their results.
1f represent problems and solutions in graphical forms; move from one representation to another.
2a use their previous understanding of integers and place value to deal with arbitrarily large positive numbers.
3a add, subtract, multiply and divide integers.
3o use calculators effectively, know how to enter a range of calculations including those involving measures.
3q understand calculator display, interpreting it correctly.
4d give solutions in the context of the problem to an appropriate degree of accuracy, recognizing limitations on the accuracy of data and measurements.

Ma3 Shape space and measures

4a make sensible estimates of a range of measures in everyday settings. know rough metric equivalents of feet, miles.
4c understand and use compound measures including speed.

Ma4 Handling data

1a carry out each of the four aspects of the handling data cycle to solve problems.
1c select and organise the appropriate mathematics and resources for a task.
1e interpret, discuss and synthesise information presented in a variety of forms.
1f communicate mathematically, making use of diagrams and related explanatory text.
1I look for cause and effect when analysing data.
3a collect data using various methods including observation.
4a draw and produce, using paper and ICT. Pie charts and frequency diagrams.
5a relate summarized data to initial questions.

Breadth of study

Practical work in which they draw inferences from data and consider how statistics are used in real life to make informed decisions.