

## Key Stage 2 (Year 4 & 6) SCIENCE & GEOGRAPHY

### Lesson 3: "Ways to travel and the impact on outdoor air"

Length of Lesson: 1 hour

National Curriculum in England, for teaching from September 2015

Curriculum Topic: Working Scientifically (Year 4); Human and physical geography (Year 4 and year 6); Animals including humans (Year 6). Key Stage - Geography, Lower Key Stage 2: Year 4 - Science & Upper Key Stage 2: Year 6 - Science

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/425601/PRIMARY\\_national\\_curriculum.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/425601/PRIMARY_national_curriculum.pdf) pg 161: science Yr 4, 172: science Yr 6, 186: geography

#### CURRICULUM

Lower & Upper Key Stage 2 *Geography: Human and physical Geography*

Statutory requirements: human geography: types of settlement and land use, economic

activity including trade links, distribution of natural resources including energy.

#### CURRICULUM

*Place knowledge*

*Year 6 Science: Animals including humans.*

Statutory requirements: recognise the impact

#### CURRICULUM

*Year 4 Science: Working scientifically.* Statutory requirements

- Gathering, recording, classifying and presenting data.
- Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.
- Reporting on findings from enquiries, including presentations of results.

#### LESSON PLAN

Explain to the class that humans impact the environment through land use change. Ask the class whether they can think of ways that we have changed the natural landscape (for instance building houses, business, factories, transport routes, farming etc).

In this lesson students learn about travel and transportation. Ask which ways humans can get from place A to place B (walk, cycle, bus, train sail, fly etc). Next, ask the class what the type of transport routes are around the school - this may involve them having a look around the school and document their findings.

Ask the class to carry out a survey on how everyone usually gets to school in the morning. The survey resource is provided below. Do they walk, cycle, take the bus, use the car (do they car share?). Here the class will split into pairs and each member of the pair will ask the other member the set of questions. This should take no more than 5 in total. Have them use the data they have collected to create simple pictograms, bar graphs or pie charts to present their findings, as well as a written description. You could also have them create simple percentages.

After investigating how everyone travels to school, students will be divided into three teams where they will each discuss and write down pros and cons of one of the following:

1. Walking and cycling,
2. Taking the car, or
3. Taking public transport.

The teams should discuss themes surrounding environment and pollution, health (impact of air pollution, the need to exercise), safety and cost. The teams present their findings and there can be a vote on what they think is the best way to go to school. Teachers will have to remind the students that parents have to make the final decision on how they get to school. Students can then complete a homework exercise, discussed below.

#### HOMEWORK EXERCISE

Ask the students to go home and talk to their parents about and what they could do to reduce air pollution in their lives. This might include changing the way they travel to school, and have them try and think of more examples outside of this, such as reduce energy use, planting trees. Students write up their findings.

#### LESSON REQUIREMENTS:

- Survey per student,
- Graph paper,
- Pens & pencils,
- Rulers
- Safety outfits for going outside (if applicable)

name .....

## Class Survey

How many times a week do you get to school by <b>car</b> ?	How many times a week do you get to school by <b>bus</b> ?	How many times a week do you get to school by <b>Underground or train</b> ?	How many times a week do you get to school by <b>bicycle</b> ?	How many times a week do you get to school by <b>foot</b> ?
..... times a week	..... times a week	..... times a week	..... times a week	..... times a week

**Do you got to school using another form of transport that is not in the survey? Please make a circle around the correct answer.**

**Yes / No**

**If your answer is Yes, please write down which mode of transport below:**

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