

# **Fieldwork within the School Grounds: Environmental survey and evaluation**

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## **Introduction**

This tried and tested fieldwork is for a class at Key Stage 1, 2 or 3 to make an environmental survey of a number of outdoor sites within the boundary of the school grounds. The investigation described below is one done with many Key Stage 3 classes.

The students learn the survey skills for the last half an hour of a preparatory lesson. The fieldwork takes the next one-hour lesson and an extended homework write-up completes the survey, unless the teacher wants a follow-up lesson on improving one of the sites surveyed.

### **The key learning outcomes of the fieldwork are to have learned how to...**

- a. discuss as a pair or small group and decide which criteria are most useful to the survey
- b. come to rapid decisions about giving scores to environmental criteria such as noise, litter and flowers.
- c. record the scores (by filling in an environmental survey table) outdoors and unsupervised, then adding up the scores to make a total out of 100.
- d. compare the scores of the sites chosen and find the best and worst sites.
- e. start thinking about how to improve the environment of at least one of the sites.
- f. evaluate the fieldwork method and think how to improve it.

### **Links with the curriculum:**

a. The draft programme of study for Geography Key Stage 3 [at April 2007] states that, “the curriculum aims can be interpreted onto fieldwork that should be ...  
... enjoyable ... show a sense of achievement ...allow individuals to create a sense of responsibility towards people and the world around them.”

b. Relevant bullet points from the draft are shown below with blue shaded phrases revealing new parts of the KS3 Programme for Study.

- ask geographical questions, thinking critically, constructively and creatively (i.e. identify questions to answer and problems to resolve)
- collect, record and display information
- analyse and evaluate evidence, presenting findings to draw and justify conclusions (i.e. support conclusions, using reasoned arguments and evidence)
- find new ways of using and applying geographical skills and understanding to create new interpretations of place and space
- plan geographical enquiries, suggesting appropriate sequences of investigation (i.e. to plan and carry out research, appreciating the consequences of decisions)
- solve problems and make decisions to develop analytical skills and creative thinking about geographical issues.
- select and use fieldwork techniques appropriately, safely and efficiently.

c. Also, students at Key Stage 3 are now encouraged to develop six qualities, those of becoming ... team workers ... self managers ... independent enquirers ... reflective learners ... creative thinkers ... and ... effective participants. All of these qualities are encouraged and fostered within this fieldwork.

### **Preparatory work**

- A risk assessment of the activity for the department.
- A letter to parents to let them know what the activity is and that their youngster will be working in an unsupervised pair or group but safely within the school grounds.
- Three worksheets: The first (**Fig 1a**) is a blank survey table to aid recording and to allow creative thinking by the pair or small group who will work together in the preparatory lesson. If time is too short for this exercise, an existing complete worksheet, such as **Fig 1b** can be used.
- An actual or simplified school plan (**Fig 2**) can be used for students to locate the sites for themselves and to map the final total scores.
- A third worksheet (**Fig 3**) can be used for creative follow-up work either at home or in a future lesson, to show how a pair or group think a site's environment should be improved and to evaluate how well the group worked together.
- An image of a completed table (**Fig 1c**) will be very useful for visual learners.
- Alert reception / school register first-aider to expect students in case of problems.
- Let students know that for this activity a mobile phone/camera can be very useful.

### **A step by step guide to the fieldwork activities**

In the preparatory lesson, the teacher can talk with the class to find out what prior knowledge and skills they have on how to study the school site. Most may not have done a school site study of any kind before but, if any have, they could give a lead to the lesson and give some ownership to the class for building their own survey tables.

To give a sense of challenge and enquiry to this survey, a question like this one can be given to the class.

**“Which outdoor place in the school grounds is the best to be in and which place is the worst?”**

The phrase “best to be in” can be understood by everyone; then in discussion the teacher can say that this is what we mean by the phrase “a good environment”.

To show students how they can survey a site can be done by ordinary classroom discussion, but it is more useful to do it in the field, where the class will experience the sounds and smells of the environment as well as the view and will have that extra “buzz” of escape from the classroom. In poor weather, or with a class as yet unused to

self-discipline, a compromise is to keep the youngsters in the classroom and to show on a whiteboard a digital image of a well-known part of the school grounds. This place will be called Site 1. In whichever place is most suitable, the teacher asks everyone in the class to make a list of five things which make Site 1 a good one or bad one to be in. In the classroom these answers can be written on the board or image to form a list of environmental criteria. Typically, such “good site” ideas will include ...grass, trees, flowers, peace and quiet, open space, clean tarmac, clean buildings ... and “bad site” ideas may include ... traffic noise, traffic hazards, air pollution, graffiti, peeling paint, broken or dirty windows and litter.

The teacher can take any one of these and ask the class to give the site under discussion marks out of ten for that criterion, then discuss the marks and reasons for them, and ask the students to reconsider their scores, so that the youngsters get used to the decision making and feel that this is something they can do.

At this stage the class can be split into pairs or small groups of between three and five students. Peer groups are usually the least contentious but teachers may want to create the groups themselves for reasons of differentiation.

The teacher then gives out survey forms (**Fig 1**) and offers another challenge to the pairs or groups - to create their own list of ten criteria with which to study the image. If time does not allow this discussion, a previously used sheet can be employed instead, such as **Fig 1b**. Similarly the teacher can choose the ten sites – or challenge the student pairs/groups to choose ten sites of their own.

The sequence of discussing each criterion, coming to a decision, then recording the score and finally adding up the marks can then be introduced. A completed table, such as 1b projected or accessed onto a whiteboard shows the whole process and will help the visual learners.

Fieldworking routines and ethics should be asserted, with ideas such as ... be back in this classroom 10 minutes before the end of the lesson ... go to ‘student services’ if problems occur, where help can be found ... only two groups at any one site at the same time ... choose sites in your own group’s sequence not following someone else ... work supportively with each other, and enjoy yourselves but do not disturb neighbours, or teachers and students in lessons, A copy of the map/plan of the school site (Fig 2) can be given to show students the location of the sites they must survey.

### **The fieldwork itself...**

Pairs/groups go off around the school site to do their fieldwork. The teacher finds a vantage point where they can be seen by students at several sites and stays there for a while, then moves to another site and so on.

After the survey the pairs or groups will total up each site out of 100. Then they will note which site has the highest score – “the best site” – and the lowest score – “the worst site”.

### **Follow up work**

A differentiated set of tasks can be given for extended work. Here are some examples, from which students can pick:

1. List the sites from Best at the top to Worst at the bottom.
2. Plotting the scores on the map of the school grounds in the site boxes, perhaps colour-coded; red for best, pink next, orange next, and so on down the rainbow, with violet for worst.
3. Analysing results to see which criteria were the most useful to pick out the best site and the worst site. Were any criteria similar for every site and so were useless? Which criteria were the best to finding differences
4. Analysing the map to see if there is a pattern of best and worst.
5. Discussing and drawing how a site could be improved. This could be the worst site, or any site which is just begging for the improvement thought up.
6. Evaluating how well the group worked together. How could the fieldwork have been done more effectively.

### **Why is this fieldwork activity successful?**

The fieldwork is carried out on the school site so it is free and familiar to the students. It gives students skills to see familiar places and to study them in a new and useful way, which can be used in fieldtrips further afield (such as their own back garden, street and neighbourhood). The students see the activity as fun rather than work and as an escape from the lesson and the beady eye of the teacher. It is almost always a success, but watch that you ensure support to groups who find adding up difficult.

Students' comments on the fieldwork highlight its success: "Good fun ... nice to be away from the teacher, working on our own ... can have a laugh ... found we could do it quickly once we got used to the idea."

The fieldwork could be changed in the future by seeing if students can use their mobiles to make this a paper-free activity.

One top tip for the successful running of this activity is for the teacher to take care to show that a score of 10 out of 10 is awarded for *good* environmental features (e.g. lots of flowers, lack of graffiti, not a lot of it).



**Fig 1b – Table created by a pair of Year 7 students in 2007**

Site marks out of 10

Marks for each place for	1 Court Yard	2	3	4	5	6	7	8	9	10
Trees										
Flowers										
Grass										
Clean air										
Fun things										
Nice buildings										
Broken windows										
Peeling paint										
Graffiti										
Litter										
Total/100										

**Fig 1c – Table completed by a group of three Year 7 students in 2007**

Site marks out of 10

Marks for each place 10 = good 0 = bad	1 Centr e of field	2 Schoo l gates	3 Tenni s courts	4 Garde n	5 All weathe r pitch	6 Tre e area	7 Outside receptio n	8 Car par k	9 Lan e to road	10 Table s eating area
Trees	7	5	4	8	6	10	4	3	3	7
Flowers	3	8	0	10	5	3	10	0	1	6
Grass	10	7	6	7	4	4	3	4	2	8
Clean air	10	4	8	10	10	10	5	3	4	8
Noise	8	3	8	8	7	10	4	5	3	4
Nice buildings in view	8	7	5	2	6	2	7	5	3	5
Dirty/broke n windows	10	8	10	10	10	10	9	7	10	8
Peeling paint	10	7	10	10	10	10	10	8	10	8
Graffiti	10	6	8	6	10	9	9	10	2	3
Litter	3	6	6	7	7	9	7	8	0	0
<b>Total/100</b>	<b>79</b>	<b>61</b>	<b>65</b>	<b>78</b>	<b>75</b>	<b>77</b>	<b>68</b>	<b>53</b>	<b>38</b>	<b>57</b>

**Fig 2 Simplified Plan of the School Grounds**

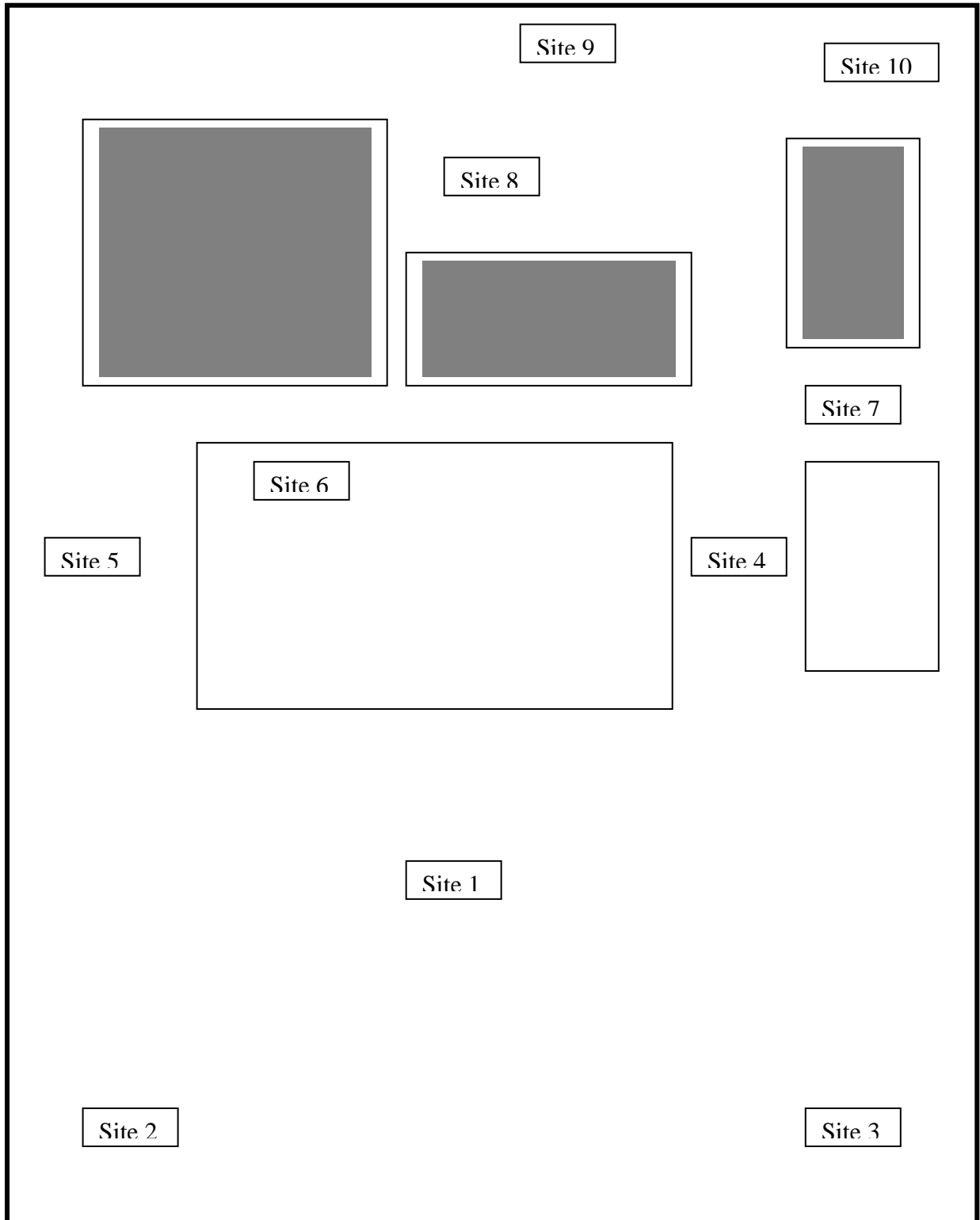


Fig 3

## How to Improve our Chosen Place

The place we have chosen is ...

<u>Picture</u>	<u>What it Might look like</u>

<u>Improvements</u>	<u>Reasons for improvements</u>
•	•
•	•
•	•

How well did we work together?

Very Fairly Poorly Badly

What went well? \_\_\_\_\_

What was difficult? \_\_\_\_\_