

Secondary School lesson plan

Finding one big green idea

Do you wish your school could be greener and more environmentally friendly? The Observer wants to hear about your great project ideas to achieve that aim.

[An electronic portfolio of inspiring images is provided]

Activity 1: identifying a problem

A photographic brainstorm

Resources needed:

- Inspiring images of nature
- Cameras and mobile phones with which to take photos
- A means of sharing those photos among the class or group - for example, memory sticks to enable uploading of photos onto a computer or online access to photo sharing sites such as Tumblr, Flickr, Photobox
- Electronic or hard copy of a secondary school's portfolio of photographic evidence

Main lesson

- Eco-Schools consider that to become sustainable, a school should have worked on nine topic areas: energy, water, biodiversity, school grounds, healthy living, transport, litter, waste and recycling, global citizenship. If you are an Eco-School you will be familiar with these. If you are not, you may need to spend some time explaining what these mean.
- Write these words as headings on nine sheets of paper and allocate groups of students to separate topics. Global citizenship will be difficult unless you have classes in action or displays of work that illustrate it.
- Ask students to use their sheet of paper to list how the school is good and separately, how it's bad for their allocated topic.
- You are going to send students out to collect photographic evidence of the good and bad points of the school. You will need to make preparations for photo collection and preparation before the lesson.
- When you have collected all photos, project them, calling up the groups to describe and explain their findings.
- One person - it could be the teacher, or a 'spare' student should collect the ideas, perhaps on a white board. A spider diagram or mind map is one of the best ways of collating information at this stage.
- Let the class share the spider diagram and open a discussion

Plenary

Finish this lesson by asking students to think about what would make the best problem to work on. It may be entered for the competition if good enough so students will need to consider such issues as:

- Are there any innovative solutions to this problem?
- Is there opportunity to develop different strands (think of the Eco-Schools topics, for instance).

- Is there opportunity for everyone to have an input?
- Is it achievable in the time frame?
- Will there be time to evaluate the project and present results?
- Is it exciting or engaging enough for everyone to work on for a few months?
- Are there sustainable solutions?

Activity 2: solutions

Solve the problem in a sustainable way and come up with a solution that is engaging and fun to implement

Resources needed: Large sheets of paper and marker pens for brainstorming or whiteboards, as well as access to computers.

Begin the lesson by recapping your problems or issues and write them at the top of the board.

Now make a decision - exactly which problems or issues will the class focus on? Then challenge the class to come up with a project name.

Main lesson

Students now need to come up with a solution. It might be one big solution but alternatively several smaller solutions could be linked. What's important is that it's sustainable. Generating workable ideas is much more than brainstorming.

It is important to divide students up into groups.

You could pick out different aspects of the solution that interest students. Take sustainability windows, for example. Explore solutions by dividing the class into separate subject areas - mathematicians, writers, geographers and artists.

Next, issue large whiteboards if you have them (A3 are good). These definitely foster creativity. If not, use large sheets of paper. Everyone now is focussing on the same problem and brainstorming ideas. Encourage students to make connections, take risks and to find potentially innovative solutions. Allow 30-40 minutes and be prepared to prompt if absolutely necessary.

Ask groups to present their findings to the whole class. Decide as a class, which are the best ideas and then take a vote. Return to discussion groups or keep as a whole class discussion if you prefer, but in either case, give students time to strengthen these chosen ideas.

Evaluate the ideas for their likely success and consider whether the solutions are innovative. Is there opportunity for everyone to have an input? Is it achievable in the time frame? Will there be time to evaluate the project and present results? Is it exciting or engaging enough for everyone to work on for a few months?

Plenary

Ask students to summarise the solution in a way that will enable them to talk to other people about it. Preparing a tweet in 140 characters is a really useful summary exercise here.