

Problem Based Learning unit plan

Introduction

Audience: This mini unit is aimed at Grade 11 and 12 students, aged between 16 years old and 18 years old.

Time frame: This mini unit will take 16 hours approximately.

Real world problem:

The world's population is expected to increase by two billion over the next 20 years, yet we are already struggling to feed everyone. Devise strategies to ensure equitable food distribution.

Entry document:

There are a variety of entry documents for the different activities and these can be found in the outlines for each activity.

Content areas:

1. Environmental management
2. French as a foreign language

Prior Knowledge:

Students will have studied environmental management for two years prior to this unit.

Students will have studied French as a foreign language for five years prior to this unit.

Essential questions:

1. Overpopulation and overconsumption are two key problems facing the world today. What do I need to know in order to find solutions to these problems?
2. What are the possible solutions for these problems and how can these possible solutions be achieved?

3. What specific vocabulary do I need to know in French in order to be able to make a presentation on either overpopulation or overconsumption to high school French students?

Resources needed:

1. General stationery: for example, chart paper, pens, highlighters
2. Computers
3. Internet access
4. Access to online encyclopedias such as Britannica

Skills that are being developed throughout the unit:

The ability to:

1. Analyse
2. Evaluate
3. Research
4. Communicate
5. Collaborate
6. Be creative

Aims of the mini unit:

By the end of this unit, students will be able to:

1. Understand and explain the meaning of overpopulation and overconsumption.
2. Understand and explain why the world has these problems of overpopulation and overconsumption.
3. What is the key solution to the problem of overpopulation and what are the different ways in which this solution could be achieved?
4. Suggest some reasons for the problem of overconsumption some possible solutions to these.
5. Recognise and apply key vocabulary important for this topic of overpopulation and overconsumption in order to look up, learn and, most importantly, use this key vocabulary in French.

6. Apply the key vocabulary important for this topic of overpopulation and overconsumption in French in order to prepare an engaging presentation in a format of their choice on what they have learnt on this matter to high school French students.
7. Demonstrate confidence with the topic of overpopulation and overconsumption and with topic specific French vocabulary by making engaging presentations to high school French students.

Learning process and activities:

The role of the students:

Students will be divided into small groups of four which will remain the same throughout the mini unit. They activities will all be carried out in groups and will encourage students to analyse, evaluate, research, communicate, collaborate and be creative.

The role of the teacher:

The main role of the teacher in PBL learning activities is to act as a facilitator. Therefore, essentially the teacher will guide the learning process by providing some information in a variety of formats and some activities to help the students start asking the right questions and thinking along the right lines. During the activities, the teacher will circulate and help the students when help is needed.

Activity 1:

Proposed Length: 1 lesson = 1 hour

Aims to be achieved during this activity:

Understand and explain the meaning of overpopulation and overconsumption.

Understand and explain in brief why the world has these problems of overpopulation and overconsumption.

Activity process:

Step 1:

Students watch the following video:

<http://www.youtube.com/watch?v=b98JmQ0Cc3k>

Step 2:

They then get into their groups and brainstorm on a piece of chart paper around the following question:

'What do we need to know in order to find a solution to these problems?'

Step 3:

They then divide these points between them and research in order to find the answers.

Step 4:

Towards the end of the lesson, each group presents the rest of the class with one of the points that they thought it was important to know and what they have found out on this point. Each group must present on a different point.

Activity 2:

Proposed length: 3 lessons = 3 hours

Aims to be achieved during this activity:

What is the key solution to the problem of 'overpopulation' and what are the different ways in which this solution could be achieved?

Activity Process:

Step 1:

Students watch the following video:

<http://www.youtube.com/watch?v=fNxctzyNxCO>

Step 2:

The students then split into their groups to discuss the following questions for 15 minutes:

1. What does Alexandra Paul say she is shocked by?
2. Why does she think the world is now overpopulated? (3 points)
3. What does she believe the world population should be?
4. What are the key solutions to reducing the world population according to Alexandra Paul?

Step 3:

The students then come back together as a class and we have a discussion on their answers to the questions above.

Step 4:

The students then split back into their groups and are given a piece of paper with the title 'one child families' and two columns on it. One column is entitled 'advantages' and the other column is entitled 'disadvantages.'

The students have to brainstorm on this as a group and come up with at least 3 points in each column, including their own points and not only those mentioned in the video.

Step 5:

The students then have to create a small leaflet which focuses on one aspect which they believe will encourage people to have only one child.

The leaflet should be aimed at an audience of their choice – they need to specify who their audience is in terms of age and social background and in which country their audience are located. The audience of their choice should influence the content of their brochure.

For example, the students must focus on what they think is the best way to achieve this goal of '*one child families*' given the audience that they have chosen – it may be by making people more aware of environmental issues, it may be by making people more aware about contraception and so on.

Step 6:

Once the students have completed their leaflets, they will photocopy and distribute their leaflets with the rest of the class. Each group will read the leaflets from all the other groups. However, each group will be asked to specifically assess and give constructive feedback to one group. While assessing the leaflets, the students should take into consideration the following questions:

1. What is the main message of the leaflet? Is this message clear? Justify your answer.
2. Would the message have an effect on the desired audience of their choice? Why/ Why not?
3. What do you think is good about the leaflet? How do you think the leaflet could be improved?

The students then give feedback on the leaflet they have assessed in a constructive way to their peers.

Activity 3:

Proposed length: 3 lessons = 3 hours

Aims to be achieved during this activity: Suggest some reasons for the problem of overconsumption some possible solutions to this.

Step 1:

Students are split into their groups from the start of the lesson and each group is given a copy of each of the images found below and asked to discuss the messages of these images based on the following questions:

1. According to image 1, what are we humans doing to the world in which we live?
2. In your opinion and based on other information that you may know, how and why are we doing this to the world in which we live?
3. Firstly, look at each of the statements on the left hand side of the bar graph and answer these questions yourselves with a 'yes' or 'no' answer? Be honest. Note down the answers of each of the group members and discuss your overall answers together as a group.
4. According to image 2, which age range demonstrates the most concern about overconsumption? Why do you think this is?
5. According to image 2, which age range do you think feels the most that they spend money unnecessarily? Why do you think this is?
6. According to image 2, do a huge percentage of people think they would be happier if they owned less stuff? What does this tell us about the values of society today?
7. According to image 3, what do we humans consume too much of? What else do you think we consume too much of?
8. Finally, taking into consideration the three images that you have seen, what are your feelings about overconsumption? Are these feelings different to how you felt before you saw the images?

Image 1

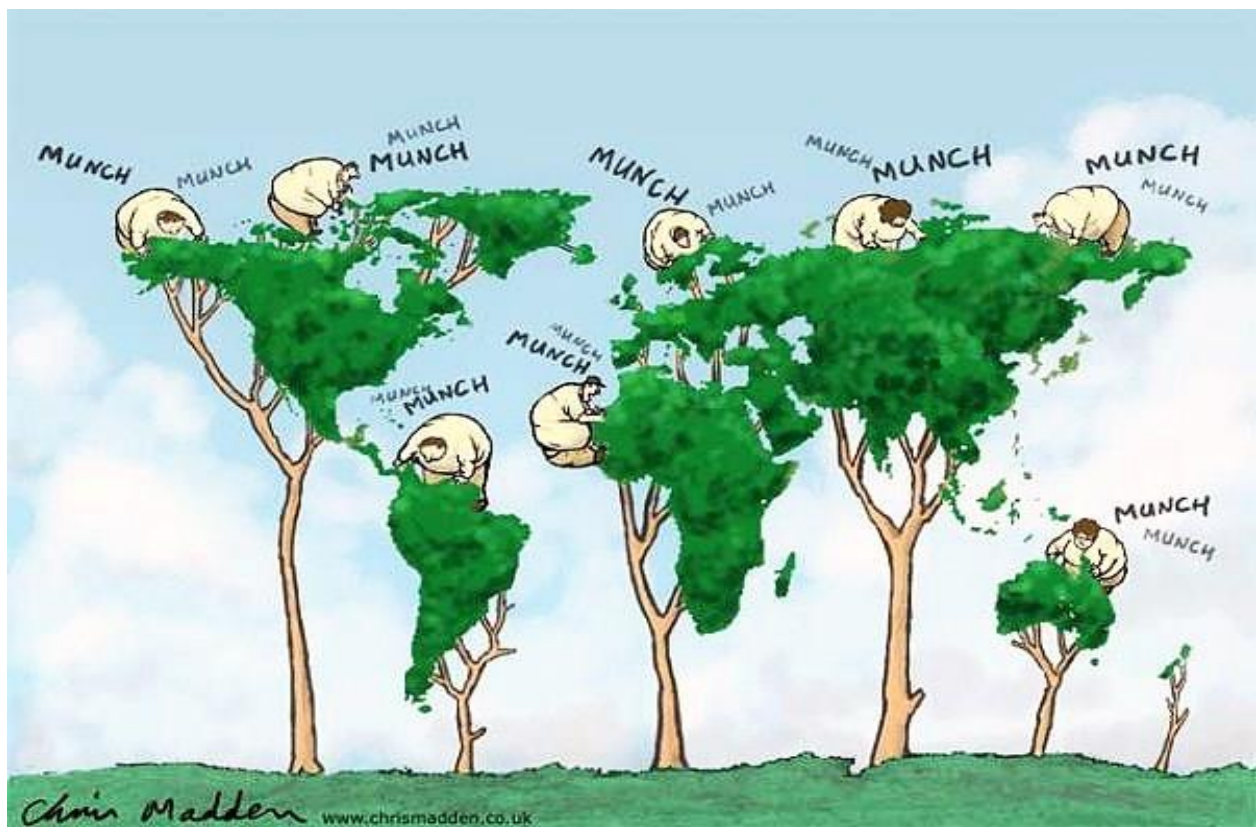


Image retrieved from: <http://trendsupdates.com/overconsumption-the-real-culprit-in-environmental-degradation/>

Image 2

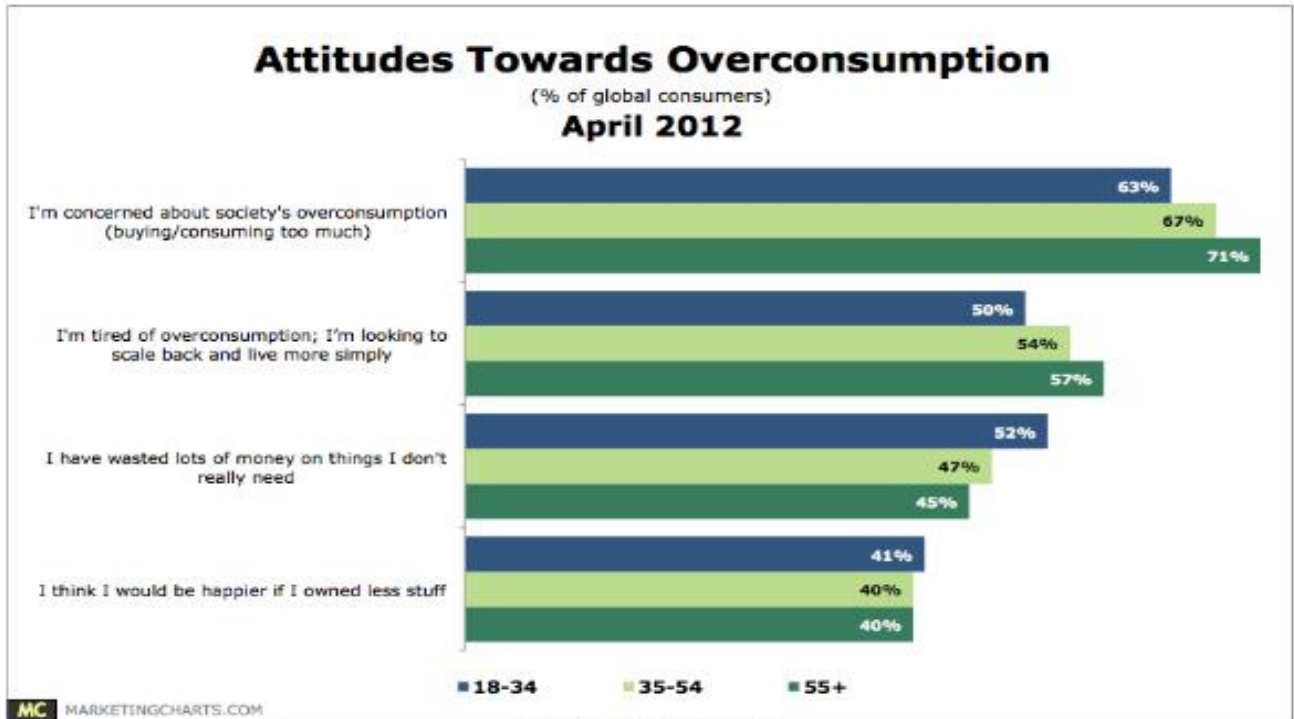


Image retrieved from: <http://www.marketingcharts.com/direct/1-in-2-young-consumers-recoiling-from-overconsumption-21942/eurorscg-attitudes-towards-overconsumption-april2012jpg/>

Image 3

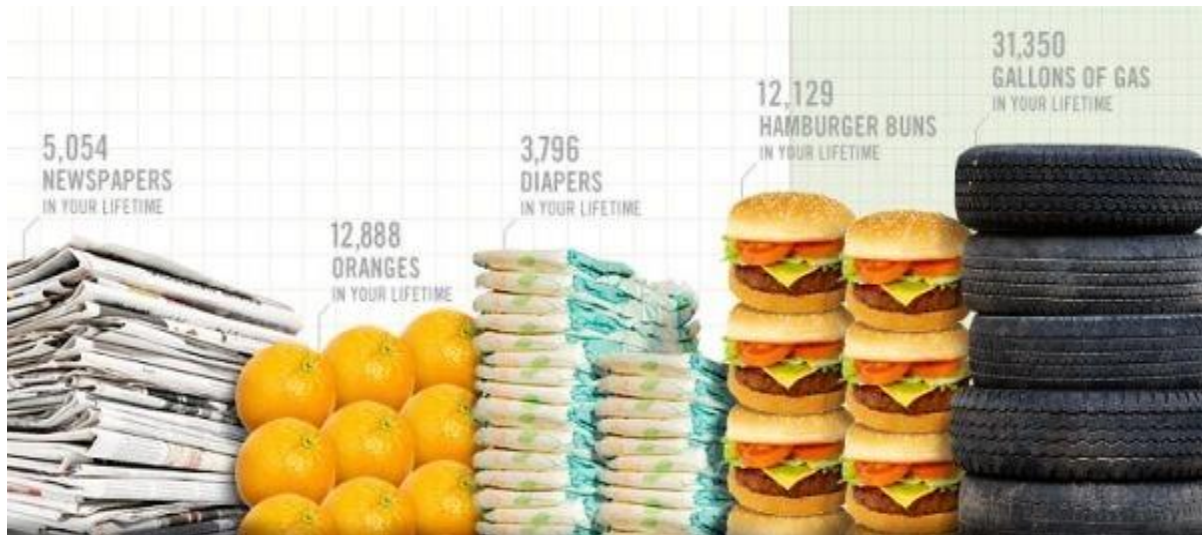


Image retrieved from: <http://trendsupdates.com/ecological-debtors-and-deficits/>

Step 2:

The students then come back together as a class and we have a class discussion on their answers to the above questions.

Step 3:

The students then split back into their group to do research the following three questions:

1. Which parts of the world consume too much?
2. In what ways do these parts of the world consume too much?
3. Why do we humans, in general, consume too much?

Step 4:

The students then come back together as a class and we have a class discussion on their answers to the above questions.

Step 5:

The students then get back together in their groups and decide together one main point related to overconsumption on which to focus – for example, environmental problems, consumerism, advertising and marketing, human nature etc.

They then work together on a small oral presentation where they will state the point that they have decided to focus on, why this point is a problem and propose a solution to the problem and say how they will achieve this solution.

For example, if they decide that advertising and marketing are one of the main points related to overconsumption, they need to explain why this point is a problem, what their solution is to this problem and, most importantly how will they achieve it?

The students will need to make a presentation in a format of their choice (role play, online cartoon strip, video, power point etc.) to the rest of their class on their solution and how they would achieve their solution.

Step 6:

The students make their presentations to the rest of the class.

Activity 4:

Proposed length: 2 lessons = 2 hours

Aims to be achieved during this activity:

Recognise and apply key vocabulary important for this topic of overpopulation and overconsumption in order to look up and learn this key vocabulary in French.

Prior knowledge: The students working on this project will have studied French for five years prior to this and therefore it is assumed that they should already have a good grasp of the language in terms of grammar and vocabulary.

Step 1:

Students are presented with the ultimate project for the mini unit:

To prepare an engaging presentation in French in a format of their choice on to teach what they have learnt on the topic of either overpopulation or overconsumption to high school French students.

Step 2:

Students are split into their groups and asked to consider the following questions before starting the project:

1. Taking into consideration what you have learnt about overpopulation and overconsumption and what you have felt about these matters, what is your goal in preparing this presentation for the high school French students and what message do you want to leave the students with?
2. How do you think you can achieve your goal and convey your desired message to the high school French students in the most convincing way? In other words, which format are you going to use to make your presentation?
3. How will you structure your presentation and what will your key points be?

Step 3:

The students then come back together as a class and report back on their answers to the above questions.

Step 4:

Students are then split back into their groups and asked to brainstorm important vocabulary that they will need to know in French in order to achieve their goal and convey their message. They should be able to have some clear ideas on the topic specific vocabulary they will need due to the previous activities that they have done. Each group will then divide up the key vocabulary they will need to find out in French and search for these words using either a dictionary or www.wordreference.com

Step 5:

Each group will then show the new topic specific vocabulary that they have looked up to the teacher so that the teacher can ensure that that the students are on the right track.

Activity 5:

Proposed length: 4 lessons = 4 hours

Aims to be achieved during this activity:

Apply the key vocabulary important for this topic of overpopulation and overconsumption in French in order to prepare an engaging presentation in a format of their choice on what they have learnt on this matter to middle school French students.

Prior knowledge: The students working on this project will have studied French for five years prior to this and therefore it is assumed that they should already have a good grasp of the language in terms of grammar and vocabulary.

Step 1:

Students come to class and are asked to work as a group on their presentations, making sure that they focus firstly on the script/ dialogue for their presentations – this may take them some time as they will have to write this in French.

Please note that the teacher will be guiding them throughout this process, providing help when needed and, finally, checking the completed script/dialogue before the students move on to focusing on the actual format in which they will present.

Step 2:

The students will continue working in their groups and now they will be focusing mainly on the format in which they will present, be it through role play, video, online cartoon strip, power point presentation etc. Again, this will take them some time as they will need to both prepare an engaging presentation and ensure that they are confident with the French in order to present it confidently without reading from a script.

Once again, the teacher will be guiding them throughout this process, providing help when needed and, finally, viewing the final product before the students go and present to the high school French students.

Activity 6:

Proposed length: 3 lessons = 3 hours

Aim to be achieved during this activity: Demonstrate confidence with the topic of overpopulation and overconsumption and with topic specific French vocabulary by making engaging presentations to high school French students.

Step 1:

The students and teacher go to a French high school where they will be making their presentations to a group of high school French students. They make their presentations.

Step 2:

The French students fill out a brief questionnaire (made by the teacher) asking them questions on what they have learnt from the presentations.

In this way, the students will be able to get a good idea of how effective and engaging their presentations were.

Step 3:

In a follow up lesson, the students will go through the feedback in their groups and then discuss this as a class with the teacher.

In the discussion, they will focus on what was good about their presentations and what they will do differently to improve next time that they have a similar project.

End of unit

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