

CINEMA INSPIRATIONS Lesson Plan

Film title and year of release	10 billion (2015)
Timing(s) of excerpt(s) if relevant	N/A
Link to film summary (e.g. on imdb.com)	https://www.youtube.com/watch?v=jV5xiRKw5f4 Film trailer (1'34) https://www.youtube.com/watch?v=rVzxLck7dEg Interview with author (1'30)
Global issue(s) (keywords)	population, resources, climate change, consumption, food
Level/age of target learners / context	Level: intermediate and above Age: young adults and above Context: will suit a wide range of contexts but will be particularly relevant for students of economics or environmental and energy studies.
Learning objectives	<ul style="list-style-type: none"> • To raise awareness of the issues caused by an increasing global population • To learn the relevant vocabulary to talk about the topic of population growth and its effect on the planet • To practise listening skills by watching the trailer of a documentary on the subject of population growth, as well as an interview with the author • To practise reading skills by reading excerpts of a blog post and website on the topic • To develop critical thinking skills by evaluating other perspectives on the topic • To practise speaking skills by discussing the topic in groups
Resources needed	Device to show videos Internet connection One copy of the 2-page worksheet for each student One copy of the image of the film trailer
Your name/contact (if you wish for this to be public)	Helen Strong helen@helenstrong.de

TASKS AND PROCEDURES

WARMER/PRE-VIEWING (10 mins)

- Show the image of the film (below) and ask students to guess what they think the film is about. You could also ask them to write down three words which they think may describe the topic of the film and ask them to explain their three words to their partner.



- Before handing out the worksheet to students, read out the following text from it:

In 2013, Professor Stephen Emmott, Head of Computational Science at Microsoft Research, Cambridge, UK, wrote a book called Ten Billion. The book is about the growing human population on the planet and its relationship to global problems. It was made into a documentary film in 2015.

- Then tell students they're going to watch the trailer of the documentary film without sound. Ask students to watch the images and to write down key words to describe what they see. Play the trailer with the sound muted (1'34).
- Ask students to compare their words with their partner's words. Did they write the same thing? If you asked them to write down three words in the prediction activity at the start, ask them if any of those words were the same.

PRE-TEACH VOCABULARY AND FURTHER PREDICTION (15 mins)

- Tell students that, before they watch the film with sound, we need to check the meaning of a few words connected to the topic. Show students the worksheet and draw their attention to Ex. 2, the vocabulary matching activity. Hand out the worksheets and do the first one together. Then ask students to do the remaining 11 (split into two groups) on their own, before checking their answers with their partner. Then check the answers in the whole class. While doing so, highlight the *type* of words (verb, noun, etc.) and the related words. Drill some of the more difficult words, e.g. *modify, unprecedented, decade, accelerate*.

ANSWERS: 1c, 2f, 3b, 4a, 5d, 6e, 7j, 8i, 9k, 10g, 11l, 12h

- Refer students to Ex. 3 and ask them to mark how far they agree with each statement. Then ask them to discuss their opinions with their partner. Don't reveal your own views or the views of the author yet, as that is the next activity.

WHILE-VIEWING ACTIVITIES (15 mins)

- Tell learners you will now play the film trailer with sound. While watching, they should make a note of whether their opinions from Ex. 3 above are the same as Professor Emmott's opinions. If necessary, play the video twice.
- Put students in groups of three and ask them to discuss if their opinions were the same as Professor Emmott's, and also what they think about Professor Emmott's views. Tell them they can disagree with him if they like. While students are talking, monitor to make sure they've understood the opinions from the video correctly (note: the transcript is below).
- Do a quick whole class feedback.
- Then tell students they are going to watch a short interview with Professor Emmott, in which he talks about why he wrote the book. Refer students to Ex. 2 in the 'While you watch' section of the worksheet and read out the two questions.
- Play the second video (1'30). Play it twice if necessary.
- Ask students to compare their answers with their partner. Then do whole class feedback to check the answers (note: the transcript is at the end of the teacher's notes):
 - a) Why did Professor Emmott write the book *Ten Billion*?
"because I think there's an urgent need to communicate more effectively than is currently being communicated, the scale and the nature of the challenges that we're going to face this century, globally."
 - b) What does he hope the book (and the film) will do?
"I'm hoping that the book serves as a catalyst for changing the way people think about these problems, and what we need to do to solve them, if we can solve them."

POST-VIEWING ACTIVITIES (10 mins)

The post-viewing activities are aimed at developing critical thinking skills and encouraging students not to believe everything they read or hear from one source.

- Ask students if they believe what Professor Emmott said in the trailer and the interview.
- Ask students to read the excerpt from the blog post and the website to find out other views on the topic. Check the meaning of any new vocabulary.
- Put students into groups of 3-5 and ask them to discuss the three questions. Monitor while students are doing this and pick up on any vocabulary and ideas for later feedback.

ROUND-UP AND FEEDBACK (10 mins)

- Stop students and conduct a whole group feedback. Nominate individual students to report back on what their groups discussed.
- Finally, give feedback on the language they used, praising them for good use of language and correcting any errors on the board.
- Thank students for their participation in the lesson and assign one of the extension activities below for homework if you wish.

POSSIBLE EXTENSIONS OR ADAPTATIONS

- For those students who are interested, ask them to read the book or watch the whole documentary (note that neither of these are available for free) and to report back on what they learned.
- For more advanced students, ask them to read Chris Goodall's blog post (the language in the post is quite a high level) and report back on what else Goodall says Emmott got wrong (<https://www.carboncommentary.com/blog/2013/07/08/ten-billion-a-strangely-unscientific-and-misanthropic-book>)
- Students can also check out the *Our World in Data* website. Although there is some text on these pages, there are a lot of graphs which will help students better understand the figures. Students could look at the graphs and report back on what they learned (<https://ourworldindata.org/future-population-growth>)
- This could lead on to the vocabulary of describing graphs, some of which is in the blog post and website excerpts on the worksheet, e.g. *increase, fall, decline, slow down, reach (a peak) steadily, considerably*, etc.
- [Interestingly, the website tenbillionmovie.com is no longer available (when checked in November 2018).]

TRANSCRIPT (TRAILER)

Our cleverness, our inventiveness and our activities have modified almost every part of our planet. We're having a profound impact on it. We are the drivers of every global problem we face, as we continue to grow towards 10 billion.

We can rightly call the situation we're in an unprecedented planetary emergency. Consume less, a lot less. Less food, less energy, less stuff. Fewer cars, laptops, TVs. Yet every decade global consumption just continues to increase.

Demand for food is said to double by 2050. Producing more food is going to accelerate climate change. And as the human population continues to increase, every one of these problems is set to grow.

Yet, we are failing to do anything about them. We may well have embarked on the greatest mass extinction of life on earth since the event that wiped out dinosaurs.

TRANSCRIPT (INTERVIEW)

Ten billion is about us. It's about how we are the driver of every global problem that we face, and about how, as we continue to grow, every one of these problems is continuing to accelerate, whether it's climate change, loss of ecosystems, resource depletion, resource overuse, consumption, stress on water, agriculture, food, land.

And it's about our failure, collective failure, of us as individuals, failure of businesses, the failure of governments to recognise and tackle the full extent of the problem that we will face over this century.

I wanted to write *Ten Billion* because I think there's an urgent need to communicate more effectively than is currently being communicated, the scale and the nature of the challenges that we're going to face this century, globally. So I don't think that's happening at the moment.

I wanted to do that because I'm hoping that the book serves as a catalyst for changing the way people think about these problems, and what we need to do to solve them, if we can solve them.

WORKSHEET

Background

In 2013, Professor Stephen Emmott, Head of Computational Science at Microsoft Research, Cambridge, UK, wrote a book called *Ten Billion*. The book is about the growing human population on the planet and its relationship to global problems. It was made into a documentary film in 2015.

Before you watch

1. Watch the film trailer without sound and write down key words to describe what you see. Then compare what you wrote down with your partner(s).

2. Match the words with the meanings:

- | | |
|--------------------------------|--|
| 1. modify (v) modification (n) | a. something which has never happened before |
| 2. a profound impact (adj + n) | b. someone who is in control |
| 3. a driver (n) | c. Change |
| 4. unprecedented (adj) | d. a period of ten years |
| 5. a decade (n) | e. use (or eat) |
| 6. consume (v) consumption (n) | f. a strong effect |

Do the same with these:

- | | |
|------------------------------------|---|
| 7. demand (v/n) | g. Start |
| 8. accelerate (v) acceleration (n) | h. destroy / kill completely |
| 9. fail (v) failure (n) | i. go faster / speed up |
| 10. embark on (v) | j. Need |
| 11. extinct (adj) extinction (n) | k. not succeed / not be successful |
| 12. wipe out (v) | l. when a species has completely died out |

3. How far do you agree with these statements?

		I agree completely	I agree to an extent	I disagree
a.	Most of the problems in the world are caused by humans.			
b.	Every year, humans consume more and more things (food, energy, technology, etc.)			
c.	In 30 years, there won't be enough food in the world to feed everyone.			
d.	If we don't do anything about climate change soon, humans will become extinct.			

While you watch

1. Now watch the film trailer again with the sound on. How far do you agree with what Professor Emmott says?
2. Listen to the interview with Professor Emmott and answer these questions:
 - a) Why did Professor Emmott write the book *Ten Billion*?
 - b) What does he hope the book (and the film) will do?

After you watch

Read the following excerpts from a blog post and website to find out other views on the topic. Then discuss the questions below in your groups.

Professor Emmott has been criticised for being too negative about the future of the planet. One expert on climate change and renewable energies, Chris Goodall, has said that Professor Emmott's information is incorrect and unscientific. For example, Goodall writes:

... population growth has been slowing steadily since the 1960's. The number of people in the world is increasing by about 1% a year and the slowdown will almost certainly continue.... Reasonable 2050 predictions are almost all in the 9 to 10 billion range, with most people seeing declines after that date but [Professor Emmott] tells us that we might actually see 28 billion by 2100. Does he have an argument why his number could be right? No, he just [says] it.

Source: <https://www.carboncommentary.com/blog/2013/07/08/ten-billion-a-strangely-unscientific-and-misanthropic-book>

Goodall also believes that in 2050 we will be able to make better use of land for growing food, so that a world population of 10 billion *will* have access to food.

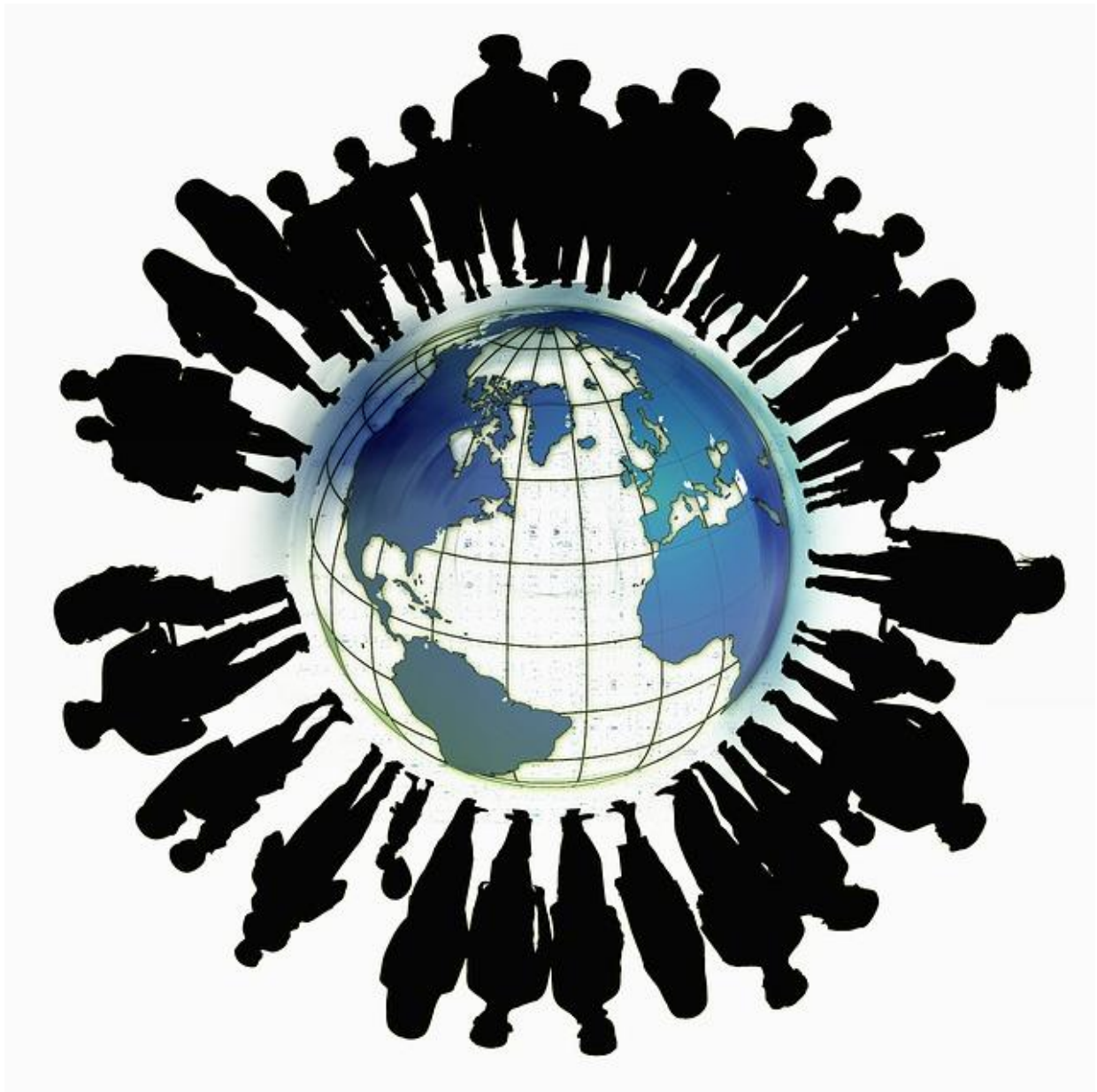
Similarly, *Our World in Data*, a project from the University of Oxford, UK, says the world population will reach 10 billion by 2050, but then will remain stable after that:

After the world population increased more than 400% over the 20th century, population growth has slowed considerably: The fastest world population growth rate was already reached in the late 1960s, and it has been falling since. While the world population increased by 2% annually in the late 60s it has now slowed to an increase of just about 1%.

Source: <https://ourworldindata.org/future-population-growth>

1. Whose predictions about the world population in the year 2100 do you believe most – Professor Emmott's (28 billion) or *Our World in Data* (around 10 billion)?
2. Will all people on earth have access to food in 2050? How will we produce food then? What will be the effect of our food production on the climate of the planet?
3. In your opinion, is the future of human life on Planet Earth as bad as Professor Emmott describes? What should we do to prepare for the future now?

IMAGE



Source: <https://pixabay.com/en/person-silhouettes-human-540257/>