

# Man and nature - a complex relationship

Section 2 - Farming and land use

# About the lesson

Subjects: History (1 hour), Nature Science and Technology (3 hours), Literature (1 hour)

Estimated time frame: 5 hours

Description: In this course, we will examine the relationship between man and nature by focusing on the neolithic revolution and on the processes involved in food production. We will also examine this relationship through works of literature.

Learning goals:

1. Understanding the impact of the neolithic revolution on the development of our species
2. Understanding and elaborating on how land use has changed over time and how ecosystems are impacted by it.
3. Investigating and understanding alternate farming methods

Needed materials: Projector and PC, sound, an agreement to visit an ecological farmer

Age group: Grade 4 - 6.

# The agricultural revolution

1. Watch the following [animated video](#) from Khan Academy about the agricultural revolution (10 minutes)
2. Also look at these aerial photographs on the next slides (5 minutes)
3. Contemplate individually or by brainstorming in groups the following questions (20 minutes)
  - a. Which were the biggest advantages in transitioning to farming
  - b. Which land changes frequently occur together with farming?
  - c. How can these changes impact wildlife and ecosystems?



Alpsakot



# Man's relationship with farming in art - Harvest Time

1. Look at the oil painting "Harvest Time" on the next slide by [George Vicat Cole](#).

Consider these questions

- a. Describe, what you see in the picture
- b. Which colours and colour ranges were used. Why would the painter choose these colours?
- c. Would you say, that the farmers in the picture are connected to nature? Why?
- d. G.V. Cole was a landscape painter from the mid-19th century.
- e. Try and describe, which feelings and associations you get when looking at the painting
- f. If Cole were to paint today, what do you think he would paint?



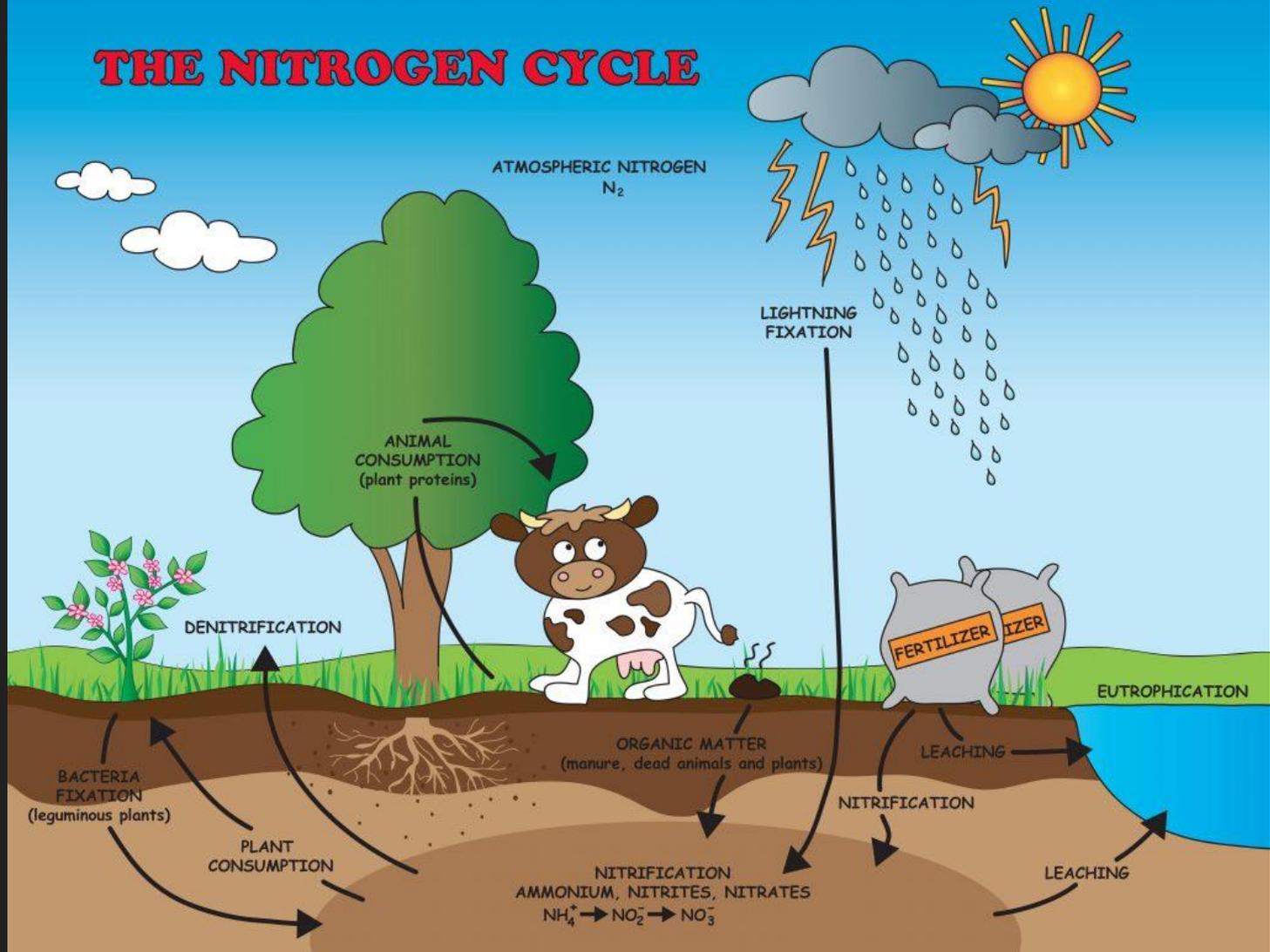
# Modern land use

1. Look at this [demonstration video](#) of a modern forestry machine (10 minutes)
2. Contemplate the following (30 minutes)
  - a. What does the machine do?
  - b. What are the advantages of using machinery like this?
  - c. How did we do forestry in older days?
  - d. What role does the forest play in nature?
  - e. What could the consequences be of clearing forests on such a large scale?

# The Nitrogen Cycle

1. Study the illustration of the Nitrogen Cycle on the next slide
  - a. Try to explain, in your own words, how the cycle works
2. Consider how modern farming interferes in the cycle
  - a. What would happen, if we always remove all the plants from the soil?
  - b. What would happen, if we keep ploughing or turning the soil?
  - c. What would happen if we only have animals on the land?

# THE NITROGEN CYCLE



# Visiting an ecological farm

1. The task is now to find out, how farmers can address some of the issues we mentioned previously. To do this, I recommend scheduling a visit to an organic or biodynamic farmer in your local area, and interview them. You can use the questions on the following slide for inspiration. If this is not possible, I alternatively recommend watching the movie “[The Biggest Little Farm](#)”, which you can rent or buy on Amazon.  
Note, that above link is an affiliate link.

# Inspiration questions for interview

- What methods do you use on your farm to protect the soil
- Which role do animals play on your farm?
- How do you protect wild plants and animals?
- What happens after you finished harvesting?
- How do you prepare the soil before seeding?
- What machinery do you use. Why?