



# Mapping the Impact

*{Earth Systems & Resources*

# Objectives

- *Identify resources, processes, and impacts embodied in material goods*
- *Analyze interconnections among lifestyle, population, economy, and environment*
- *Determine ways to reduce ecological footprint and other impacts associated with material goods*

# What is Ecological Footprint?

- *What is Ecology?*
  - *the branch of biology dealing with the relations and interactions between organisms and their environment, including other organisms.*
- *What is Footprint?*
  - *A step/print that you leave behind*

# What is Ecological Footprint?

*The term “ecological footprint” refers to the area of the earth’s productive surface, both land and sea, that it takes to support a person’s or a population’s lifestyle. Ecological footprint includes natural resources needed from the environment, plus space for infrastructure, recreation, and waste disposal. A more resource-intensive lifestyle results in a larger ecological footprint.*

**Think about it**

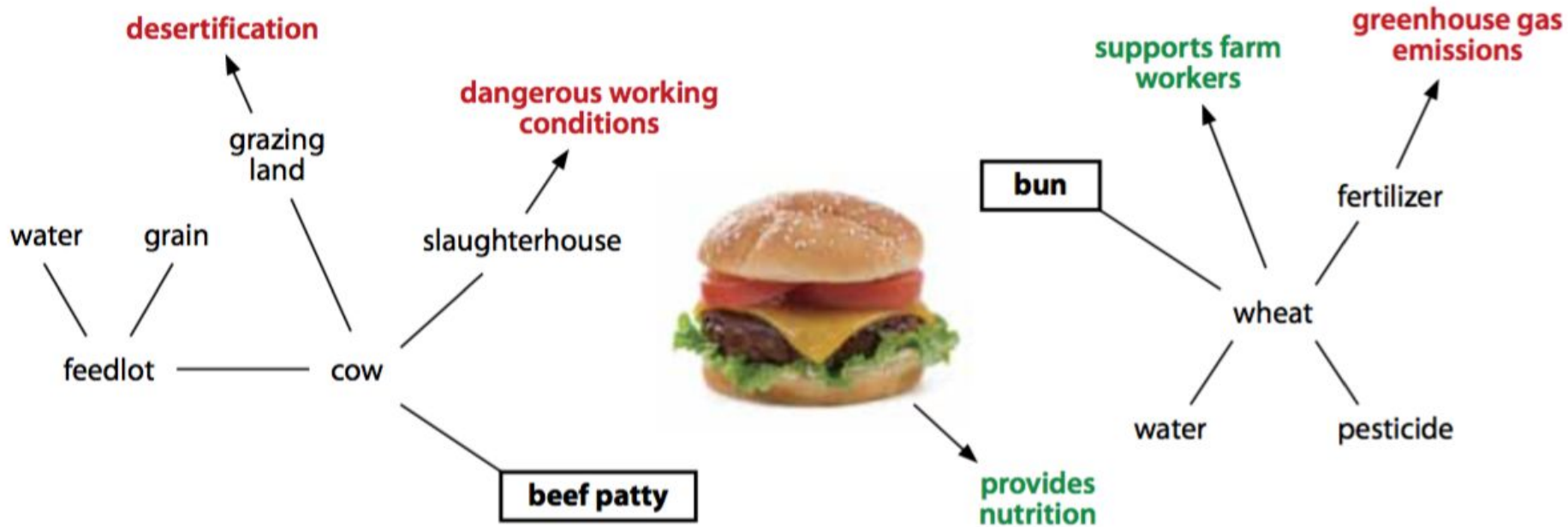
*Raise your hand if you have eaten  
hamburger in the last week?*



*Read the “Hamburger, Fries, and a Cola” article.  
Write down the resources required to produce the  
meal and the impacts it has on the environment.*



## Sample Impact Diagram: Hamburger



# Brainstorm

*In groups, brainstorm and diagram all of the resources, processes, and impacts associated with the everyday object passed out to your group. These are items such as clothing or a piece of sports equipment.*

*You have 20mins to make an “Impact Diagram”*



# Create a List

*You have 5 mins to create a list with your group, of ways to decrease the ecological footprint of this item.*

*Note: You do not need to give up everything you like, but rather should focus on positive ways to reduce their impacts.*

- *For example, instead of saying that people should never drive cars, they could suggest that people ride a bike or carpool to school when possible.*

# Present Diagrams

- *What is your Item?*
- *What are the negative impacts on the people and the planet?*
- *What are the positive impacts on the people and the planet?*

# Reflect

1. *How is the ecological footprint of a person's lifestyle connected to social and economic impacts?*
2. *Would the production, use, and disposal of these everyday items be sustainable if only a small number of people purchased the items?*
3. *How would the impacts associated with an item change if everyone in the world purchased or used it?*
4. *Does lessening our impacts necessarily mean reducing our quality of life? Why, or why not?*
5. *How might businesses be encouraged to produce these items in ways that have more positive impacts on the environment and on people?*
6. *Often negative impacts associated with an item are not paid directly by the people who purchase and use the items. Who might end up paying for those impacts? Why do you think these impacts are not included in an item's purchase price?*