



The HISTORY lesson plan provides teachers and students with the opportunity to investigate the impact climate change is having on the environment through classroom activities.

## **SUBJECT MATTER ( SCHOOL DISCIPLINE / LEARNING AREA)– THE HISTORY**

**LESSON-** The Industrial Revolution – changes and consequences

**OBJECTIVE** - Integrating environment and climate change subconsciously to the learning outcome *The Industrial Revolution – changes and consequences* using digital games' web 2.0 tools. Thus, the students will be able to learn about *The Industrial Revolution – changes and consequences*, consciously while they are raising awareness on the environment and climate change subconsciously using digital games. These games can be applied to indoor and outdoor learning environments, distance and traditional (face-to-face) classrooms.

### **Learning Objectives of the lesson:**

Upon completion of this lesson, students will be able to:

- **Understand the major achievements of the Industrial Revolution**
- **Identify the changes in life brought by the Industrial Revolution**
- **Understand the different interpretations of the impact of the Industrial Revolution**
- **Make an imaginative reconstruction of the life in the past**

**Learning outcomes and environmental awareness and climate change implications** - The environmental issues suggested by the game are represented by the new inventions and transportation methods created during the Industrial Revolution and describe their impact on life and history and also their effect upon climate change and environment. The outcome is to assess the impact of climate change, pollution on a local environment.

**Description of the game and activities and technical specs:** The digital game will consist of a timeline made up of ten individual images depicting significant inventions and individuals related to the Industrial Revolution; the timeline must be constructed by identifying the



inventions and naming the respective inventors. The purpose of the game is to enable students to track important themes and events as they occurred within this time period.

## INSTRUCTIONS/ PROCEDURES

**Teacher- Question 1** – What is „Industrial Revolution “ and where it started?

Teacher will introduce students to the term of „Industrial Revolution”- the term refers to a period in history during which significant changes took place in industry in a relatively short time. Students will find out that The Industrial Revolution brought about fundamental changes in the way goods are made. It introduced mass production and the use of new sources of energy to meet human needs. People started making goods in factories instead of at home, and they began to use steam power to run machinery. Science also became more closely linked to technology, resulting in a stream of constant innovations. The first Industrial Revolution started in the 1700s in England, and later appear in other countries too, thanks to shared economic relations.

### Activity 1

Students are required to write down a few notes in a personal diary, about what life was like for a peasant before the Industrial Revolution. They are given some images as guidance points.





Key points students should cite include: refer to villagers, yeomen, and gentry; focus on having sufficient food to eat all year long, either by farming and/or trading at village markets; the impact of the seasons and the weather; the threat of malnutrition and illness; the hard work and simple living conditions that characterized rural life; poor people's lack of power to change their living conditions.

**Web 2.0 tool digital game model:** cloze text  
<https://learningapps.org/index.php?page=3&s=industrial%20revolution>

### **Teacher – Question 2 – What were the greatest achievements of the Industrial Revolution**

The teacher asks students to share to the class their favourite form of technology, or their favourite modern day invention. Then, the teacher discusses the origin of the invention / innovation or technology from the industrial era, and makes a parallel between what life was like before the respective invention / innovation and how the respective invention / innovation improved industry.

1. Marie Curie: Radioactivity
2. Thomas Edison: Light bulb; phonograph
3. Albert Einstein: Theory of relativity
4. Louis Pasteur: Pasteurization (killed germs with heat; milk)
5. James Watt: Improved steam engine
6. James Hargreaves: spinning jenny
7. Robert Fulton; steamship
8. George Stephenson: steam locomotive
9. Eli Whitney: Cotton Gin



## 10. Alexander Graham Bell: telephone

### Activity 2

This digital game is designed to challenge students to create the timeline of the Industrial Revolution, by placing the pictures of the invention / innovation and its inventor under the correct name of the respective invention/ innovation.

**Web 2.0 tool digital game model:** matching pairs <https://learningapps.org/20159497>

### Teacher - Question 3 – What were the impacts of the Industrial Revolution?

The teacher explains the positive effects as well as the negative ones.

One of the major impacts of the Industrial Revolution was the improvement in the agriculture sector. Machines were introduced and replaced human labor. Machines increased the production capacity of products like wool and cotton. One of the positive effects of the Industrial Revolution was an increase in food production: farmers used scientific methods to boost productivity, such as enclosing common lands, rotating crops, and careful animal breeding. Fewer people were needed to work on farms.

A new large and powerful middle class emerged. They participated in government and promoted free enterprise and economic improvement. The Industrial Revolution also led to the growth of cities and towns which improved the economy of Europe.

There were many Scientific Advances. Inventors and business owners took a “scientific approach” to solving problems. Because of scientific advances, manufacturers had technical skills to build new machines.

The negative impact was that the Industrial Revolution polluted the environment due to chemicals released by factories.



Co-funded by the  
Erasmus+ Programme  
of the European Union

### **Activity 3**

The teacher will describe the following digital game –My timeline diary– it will allow students to summarize and memorize the Industrial Revolution main events, inventions and developments. They will fill in the gaps with a suitable word from the grid, so as to complete the diary of a time traveler back to the industrialization era.

**Web 2.0 tool digital game model:** fill in the blanks game  
<https://www.educaplay.com/learning-resources/11257137-child-labour-during-the-industrial-revolution.html>

### **Follow –up discussion**

Discuss the main advantages and disadvantages of the industrial era (on the impact of the Industrial Revolution, there were two different views: the optimistic point of view and the pessimistic point of view)

### **Assessment/ Evaluation**

Upon completion of the three activities, ask students to write a project about one inventor of the Industrial revolution, whose entrepreneurship they appreciate the most.