

Theme:	Industry 4.0	Timing:	90 mins
Topic:	(1) Industrial Revolutions and their history	Level:	B1-2

LESSON AIMS:

To be able to identify inventors, inventions and applications while analysing differences between the First, Second and Third Industrial Revolutions

LEARNING OUTCOMES - Content:

Students will be able to:

- identify each Industrial Revolution by naming its chief representatives and their inventions
- categorise technical developments and applications of each Industrial Revolution
- analyse the most significant impacts of each Industrial Revolution
- summarise each Industrial Revolution

LEARNING OUTCOMES – Communication/Language:

Students will have:

- the ability to produce accurate terms of particular technological advances and machinery for each revolution
- the chance to present the findings of their discussions to the group and to the class
- the experience of evaluating authentic material both visually and audibly with a writing scaffold

Cognition skills used:

- LOTs: remembering, understanding, applying
- HOTs: analysing, evaluating, creating

Cultural awareness:

Industrial Revolutions also brought cultural dimensions that affected a lot of nations worldwide (e.g. belief in progress and ownership, desire for profit, work for wages, labour unions, philanthropy, etc.)

RESOURCES available (suggested):

- 1. http://www.history.com/topics/industrial-revolution/videos/steam-engine-drives-a-revolution">http://www.history.com/topics/industrial-revolution/videos/steam-engine-drives-a-revolution)
- 2. https://www.youtube.com/watch?v=KkDeQjyjfAc → Second Industrial Revolution
- 3. https://www.youtube.com/watch?v=nISP9u0VvzQ → Third Industrial Revolution
- 4. https://www.youtube.com → supportive audio visual materials
- 5. http://www.computerhope.com/jargon.htm → source of new lexis

PREPARATION required (by Teacher):

- Select a range of up-to-date materials to illustrate key facts/aspects
- Industrial Revolution articles (newspaper or the Internet)
- Handout materials (technological advances, inventors, inventions, cultural awareness)
- White board/flipchart, markers, projector, PC, Internet, CD/mp3 player



Linking with previous lesson:

This is an introductory lesson

(Teacher= T; Student = S; Students = Ss; Industrial Revolution = IR)

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Stage & cognitive skills:		Time:	Procedure			
Lead-in			Check knowledge; warmer			
		10 min	Ss: Brainstorming session: What do Ss know about the Industrial Revolutions, their major inventors, inventions and applications? (Group work – Ss are divided into three groups, each group deals with one IR).			
			T: Elicit answers from groups and compare their answers with a ppt presentation.			
Stage 1:			The First Industrial Revolution (content / communication)			
LOTs: remembering, understanding, applying HOTs: analysing, evaluating		20 min	T: Elicit answers from group 1 as one S from the group records them on board. Ss watch the first video "Steam Engine drives a revolution" and as a class compare the answers from group 1 based on their visual comprehension of the video.			
			Ss: Receive a handout <i>First IR Inventions</i> and match the inventions to their descriptions in pairs.			
			T: Elicit answers from Ss and point out incorrect vocabulary/tenses used by Ss in this slot.			
Stage 2:			The Second Industrial Revolution (content / communication)			
LOTs: remembering, understanding, applying HOTs: analysing, evaluating 20 min		20 min	T: Elicit answers from group 2 as one S from the group records them on board. Ss watch the second video "The rise of the Second Industrial Revolution" and as a class compare the answers from group 2 based on their visual comprehension of the video.			
			Ss: Receive individually a handout <i>Henry Ford</i> , read in groups and answer follow-up questions about the text.			
			T: Elicit answers from Ss and point out incorrect vocabulary / tenses used by Ss in this slot.			
Stage 3:			The Third Industrial Revolution (content / comm	unication)	
LOTs: remembering, understanding, applying		20 min	T: Elicit answers from group 3 as one S from the group records them on board. Ss watch the final video "3 rd Industrial Revolution" and as a class			



HOTs: analysing, evaluating	compare the answers from group 3 based on their visual comprehension of the video.
	Ss: Receive individually a handout <i>Third IR Inventions</i> and match the inventions to their inventors in pairs.
	T: Elicit answers from Ss and point out incorrect vocabulary/tenses used by Ss in this slot.



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Stage & cognitive skills:		Time:	Procedure			
Stage 4:			Coin your own Industrial Revolution scaffolding (communication)			
LOTs: remembering, understanding, applying HOTs: creating, evaluating		10 min	Ss: Split class activity - Groups are given scaffolding handouts from a different IR and they prepare and present their summary of inventors, inventions, application of technological advances and formulate their short definition of the relevant IR. T: Facilitate Ss' feedback to the whole class.			
			Class feedback and summary			
Re-cap and/or feedback		10 min	The overall achievements of all Industrial Revolutions and how they have influenced our lives so far: Positive aspects vs. Downsides (class discussion)			
Variation:		stage 2	https://www.youtube.com/watch?v=7cp2iFwOU-c (watch only up to 4.05 min			
Variation:		Re-cap / or feedback	Audio-visual input - Summarising three Revolutions + a teaser of the Fourth Revolution https://www.youtube.com/watch?v=7SfLEiHuzbs			
Extension/ Homework:		 Homework - handouts to read and to be aware of - Cultural awareness http://www.sussexsteam.co.uk/Newcomen.html (Newcomen atmospheric steam engine) https://www.youtube.com/watch?v=HIYocKQPNKo - differences and similarities between the First and Second Industrial Revolutions 				
To be photoco	pied:	 Henry Ford the Third Industrial Revolution inventions Cultural awareness Match the definitions 				