Vocational Education

The Impact of the Automotive Industry on the Environment

WARM-UP

1. Observe the pictures and identify the environmental issues in the Automotive Industry associated with each activity.







Automotive activity	Environmental issue
• Vehicle manufacturing	
• Driving petrol and diesel cars	
• Car maintenance and repair	
• Electric vehicle battery production	

2. Agree or Disagree?
Speaking prompt: "I agree with this statement because..." / "I disagree because..."

- The automotive industry does more harm than good to the environment.
- Electric vehicles are the best solution to air pollution.
- Automotive workshops should pay more attention to waste management.
- Every automotive worker is responsible for environmental protection.

VOCABULARY

3. Match the words (1–8) with their definitions (A–H).

1. Carbon emissions	A. Using materials and energy during production.
2. Industrial waste	B. Processing used batteries to recover materials.
3. Water contamination	C. Harmful substances entering rivers, lakes or groundwater.
4. Resource consumption	D. Evaluating the effects of an activity on the environment.
5. Noise pollution	E. Manufacturing products while reducing environmental damage.
6. Battery recycling	F. Carbon dioxide released into the atmosphere.
7. Environmental assessment	G. Waste produced by factories and industrial activities.
8. Sustainable production	H. Excessive or disturbing sound.

LIVEWORKSHEETS

4. Identify the Environmental Problem. Complete the sentences with the words from the box.

emissions	consumption	contamination	pollution	recycling	waste

1. Vehicle exhaust _____ contribute to air pollution. 2. Oil leaks can cause soil and water _____. 3. Factories produce industrial _____ during vehicle manufacturing. 4. Vehicle production requires high energy _____. 5. Battery _____ helps recover valuable materials. 6. Noise _____ is common in busy industrial areas.

READING



5. Read the text. Identify the Environmental Challenges.

The Automotive Industry – Progress and Environmental Challenges

The automotive industry plays an important role in modern society. It provides jobs, supports economic development and helps people travel. However, it also creates serious environmental challenges. Vehicle manufacturing, transportation and repair activities affect air, water, soil and natural resources.

One major problem is air pollution. Petrol and diesel vehicles release exhaust gases, including carbon dioxide and other harmful substances. These emissions contribute to climate change and can affect human health. Heavy traffic also creates noise pollution, especially in cities. Vehicle manufacturers are developing cleaner engines and electric vehicles to reduce some of these problems.

Vehicle production also has an environmental cost. Factories use large amounts of electricity, water, metals, plastics, rubber and other raw materials. Manufacturing processes produce industrial waste and greenhouse gas emissions. The production of electric vehicle batteries also requires valuable natural resources and energy. Therefore, electric vehicles can reduce exhaust emissions during driving, but their overall environmental impact depends on battery production, electricity sources and recycling.

Automotive repair workshops create additional environmental challenges. Automechanics work with engine oil, fuel, cleaning products and replacement parts. If used oil enters the soil or water, it can cause serious contamination. Autolochsmiths use paints, solvents and other substances that may release harmful fumes. Auto electricians work with batteries, wires and electronic components that require responsible waste management.

Environmental protection must be part of everyday workshop activities. Workers should separate waste, collect used oil in suitable labelled containers and send batteries and electronic components to approved recycling facilities. Workshops should have good ventilation, suitable protective equipment and clear chemical storage procedures.

The automotive industry must balance economic development with environmental responsibility. Manufacturers should develop cleaner technologies, workshops should improve waste management and consumers should choose more efficient vehicles. Every professional has a role in reducing pollution and protecting natural resources. A sustainable automotive industry requires cooperation, innovation and responsible decisions.



LIVEWORKSHEETS

6. True or False? Correct the false statements orally.



1. The automotive industry supports economic development.
2. Petrol and diesel vehicles produce no harmful emissions.
3. Electric vehicle battery production uses natural resources.
4. Autolochsmiths may work with paints and solvents.
5. Used oil can safely enter the soil.
6. Environmental protection is part of workshop responsibility.

7. Choose the correct answer.

1. What is one environmental problem caused by vehicle production?
   a) Increased forest growth
   b) Industrial waste
   c) Reduced energy use
   d) Water purification
2. Why is battery production an environmental concern?
   a) It requires natural resources and energy.
   b) It produces no waste.
   c) It uses only recycled paper.
   d) It does not affect the environment.
3. What can cause water contamination in an automotive workshop?
   a) Proper waste separation
   b) Regular cleaning
   c) Used oil entering the water
   d) Recycling metal parts
4. What is one responsibility of auto electricians?
   a) Ignoring old batteries
   b) Managing electronic waste responsibly
   c) Pouring chemicals into drains
   d) Increasing energy consumption

8. Complete the table using information from the text.

Cause	Environmental effect
• Petrol and diesel vehicle emissions	
• Industrial manufacturing waste	
• Used oil entering soil or water	
• Poor management of electronic components	

LISTENING

9. Listen to the Podcast "Safety First in the Workshop". Choose the correct answer.

1. What is the first environmental problem discussed?
   a) Water consumption
   b) Air pollution
   c) Deforestation
2. What materials are used in car manufacturing?
   a) Metals, plastics and rubber
   b) Only paper and wood
   c) Only glass
3. What environmental problem can used oil cause?
   a) Soil and water pollution
   b) Cleaner air
   c) Reduced noise
4. Why is battery recycling important?
   a) It increases waste.
   b) It recovers valuable materials.
   c) It increases fuel consumption.
5. Who should cooperate to protect the environment?
   a) Only mechanics
   b) Only car manufacturers
   c) Manufacturers, workers, governments , consumers

10. What is the main message of the podcast?

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LIVEWORKSHEETS

SPEAKING

11. Analyse each Case Study and complete the Environmental Impact Assessment Report.







Case Study A: Vehicle Manufacturing	Case Study B: Automechanic Workshop	Case Study C: Bodywork Recovery Workshop
A car factory uses large quantities of electricity, water, metal and plastic. Its production processes generate industrial waste and emissions.	A repair workshop produces used engine oil, old tyres, metal parts and cleaning waste. Some workers do not separate waste correctly.	A bodywork recovery workshop uses paint, solvents, metal materials and sanding equipment. Workers sometimes forget to follow waste-management procedures.
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

12. Environmental Responsibility in My Future Profession.

Professional	Contribution to a more sustainable automotive industry
Automechanic	
Autolochsmith of Bodywork Recovery	
Auto Electrician	

WRITING

13. Imagine that you work as an environmental assistant in an automotive workshop. Your manager has asked you to prepare a short report about the environmental problems caused by workshop activities and suggest improvements. Follow the structure.

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

1. Explain the purpose of the report and describe the automotive activity.

_____

2. Identify at least three environmental problems. Give details.

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_____

3. Recommend at least three measures to reduce environmental damage and improve workplace safety.

_____

_____

4. Explain why environmental responsibility is important in the automotive industry.

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LIVEWORKSHEETS