Vocational Education

Diagnostic Procedures and Reporting

WARM-UP

1. Diagnostic Detective: "What is wrong with the vehicle?" Identify the possible problem and suggest what a technician should check.

Vehicle problem	What is the possible problem?	What should the technician inspect?	Which diagnostic tool could be useful?
Case A: The check engine light is on.			
Case B: The engine does not start, and the lights are weak.			
Case C: The car has a dent and scratches on the front bumper.			
Case D: The driver hears a strange noise when braking.			

2. A customer brings a car to the workshop and says: "My car does not start in the morning." What would you check first?

- What questions should the technician ask?

_____

- What should be checked first?

_____

- Which tools might be necessary?

_____

- Why is it important not to replace parts before checking the problem?

_____

VOCABULARY

3. Match the tools (1–6) with their functions (A–F).

1. OBD scanner
2. Multimeter
3. Battery tester
4. Inspection lamp
5. Tyre pressure gauge
6. Paint thickness gauge

A. Checks the electrical condition of a battery.

B. Measures tyre air pressure.

C. Reads electronic fault codes from a vehicle.

D. Measures electrical values such as voltage and resistance.

E. Helps identify scratches, dents and areas requiring visual inspection.

F. Measures the thickness of paint on vehicle body panels.







LIVEWORKSHEETS

4. Put the Diagnostic Steps in order. Why is each stage important?

____ Record the test results.
____ Ask the customer about the problem.
____ Recommend the necessary repairs.
____ Inspect the vehicle.
____ Perform diagnostic tests.
____ Prepare the diagnostic report.



READING

5. Read the text. Identify the Diagnostic Procedures.

Diagnostic Procedures in an Auto Workshop

Vehicle diagnostics is an important part of automotive maintenance and repair. Before repairing a vehicle, a technician must identify the cause of the problem. A correct diagnosis helps save time, reduce repair costs and improve vehicle safety.

The diagnostic process usually begins when a customer brings a vehicle to the workshop. The technician asks questions about the problem. For example, the customer may report that the engine makes unusual noises, the battery loses power, or a warning light appears on the dashboard. This information helps the technician understand the symptoms.

The next step is a visual inspection. The technician checks the vehicle for visible damage, loose connections, fluid leaks, worn tyres or damaged parts. An automechanic may inspect the engine, brakes, suspension and other mechanical components. An auto electrician checks the battery, wiring, lights, fuses and electrical connections. An autobody repair specialist examines dents, scratches, damaged panels and signs of previous repairs.

After the visual inspection, the technician performs diagnostic tests. An OBD scanner can read electronic fault codes from the vehicle's computer. A multimeter measures voltage and resistance in electrical circuits. A battery tester checks the condition of the battery. Other tools help technicians measure tyre pressure, paint thickness and other important values.

The technician must carefully record all test results. Sometimes, one fault can cause several symptoms. Therefore, technicians should compare the information from different tests before deciding what needs repair. They should not replace parts without checking the possible causes of the problem.

Finally, the technician prepares a diagnostic report. This document includes customer information, vehicle details, reported symptoms, inspection results, identified faults and repair recommendations. For example, a report may state that the battery voltage is below the recommended level and that further battery and charging-system checks are necessary.

A clear diagnostic report helps mechanics, customers and other workshop employees understand the situation. Good diagnostic skills, accurate measurements and clear communication are essential for professional automotive service.

LIVEWORKSHEETS

6. Answer the following questions basing on the text and choosing from:

an OBD scanner – faults and recommendations – it helps identify the problem – mechanical components – unusual vehicle behaviour

1. Why is vehicle diagnosis important before repair? _____
2. What information does the technician collect from the customer _____
3. What does an automechanic inspect? _____
4. Which tool reads electronic fault codes? _____
5. What information should a diagnostic report contain? _____

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



1. Vehicle diagnostics begins with replacing damaged parts.
2. A visual inspection helps identify visible damage and fluid leaks.
3. An auto electrician checks the battery and electrical connections.
4. An OBD scanner measures tyre pressure.
5. Technicians should record diagnostic test results.
6. A diagnostic report contains repair recommendations.

8. Match the Specialist with the Diagnostic Task.

1. Automechanic	A. Checks wiring, battery and electrical circuits.
2. Auto Electrician	B. Examines dents, scratches and damaged panels.
3. Autobody Repair Specialist	C. Inspects the engine, brakes and suspension.

LISTENING

9. "A Diagnostic Check at the Workshop": listen and choose the correct answer.

1. What problem does the customer report?
   a) The brakes make noise.
   b) The engine sometimes does not start.
   c) The tyres lose pressure.
   d) The car has bodywork damage.
2. When did the problem start?
   a) Three days ago.
   b) One month ago.
   c) Yesterday.
   d) Last week.
3. Which tool does the technician use to measure battery voltage?
   a) OBD scanner.
   b) Paint thickness gauge.
   c) Multimeter.
   d) Tyre pressure gauge.



4. What is the battery voltage when the engine is off?
   a) 14.5 V.
   b) 12.6 V.
   c) 11.8 V.
   d) 10.5 V.
5. What does the technician recommend?
   a) Replacing the headlights immediately.
   b) Checking the battery and charging system.
   c) Repairing the brakes.
   d) Replacing the engine.

10. Number the technician's actions from 1 to 5 according to the order in the podcast.

____ Measure battery voltage.
____ Prepare the diagnostic report.
____ Ask questions about the problem.
____ Perform a visual inspection.
____ Check the alternator and charging system.

LIVEWORKSHEETS

SPEAKING

11. Diagnostic simulation and problem-based learning.

Diagnostic Simulation	Possible findings	Recommendations
Automechanic **Case:** A customer reports that the engine makes unusual noises and the car has reduced performance.		
Auto Electrician **Case:** The car does not start easily. The headlights are weak, and the dashboard battery warning light is on.		
Autobody Repair Specialist **Case:** A customer reports that the vehicle door has a dent, scratches and a difference in paint colour.		

12. You have a vehicle problem. Explain the symptoms.

Vehicle Problem	Symptoms
The engine makes unusual noises.	
The battery loses power.	
The check engine warning light is on.	

WRITING

13. Write a Vehicle Diagnostic Report.

VEHICLE DIAGNOSTIC REPORT

1. Vehicle information
   - Vehicle make/model: _____
   - Date: _____
2. Customer complaint _____
_____
3. Diagnostic procedures _____
_____
4. Test results _____
_____
5. Identified problems _____
_____
6. Recommendations _____
_____

Technician's name: _____

LIVEWORKSHEETS