

8



Learning Activity Sheet for TLE

Quarter 4

Lesson

8

Learning Activity Sheet for TLE Grade 8
Quarter 4: Lesson 8 (Week 8)
SY 2025-2026

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LEARNING ACTIVITY SHEET

Learning Area:	TLE 8	Quarter:	4
Lesson No.:	8	Date:	
Lesson Title/Topic:	Diagnostics and troubleshooting in automotive and small engine (automotive servicing, motorcycle/ small engine servicing) - Service Cost Sensory/Visual Inspection		
Name:		Grade & Section:	

I. Activity No.1: Sensory Diagnostics in Automotive and Small Engine Servicing (15-20minutes)

II. Objective(s): Apply sensory techniques (sight, sound, touch, and smell) to diagnose common vehicle problems.

III. Materials Needed:

- Visual aids of vehicle parts
- Audio recordings of vehicle sounds
- Real or model vehicle components
- Worksheets for notetaking

IV. Instructions:

- You will be divided into small groups.
- Each group is provided with a scenario describing a vehicle issue.
- Use your sensory diagnostic skills to identify the potential problem and suggest troubleshooting steps.
- Share the group answer in class.
- Ask another group regarding their presentation.
- A rubric for the presentation is provided.

Sample Scenario:

1. The vehicle pulls to one side, and a flapping noise comes from a wheel.
2. There is a high-temperature gauge, and steam comes under the hood.
3. A sweet smell comes from the front of the car.
4. The air conditioning is blowing warm air instead of cold.
5. There is a delay in vehicle movement after shifting gears.

Rubric for Presentation

Criteria	Sophisticated (5 points each)	Competent (4 points each)	Not Yet Competent (3 points each)	Score
Content	The content is thorough and accurate, demonstrating a deep understanding of the topic. It includes all relevant information and examples.	The content has two mistakes but needs to be more accurate and demonstrate a good understanding of the topic. It includes the most relevant information and examples.	The content is accurate but may lack depth or clarity. It includes only three relevant information and examples.	
Explanation	The explanations are all clear and concise and effectively convey the main points. They demonstrate a solid ability to articulate ideas and concepts.	The explanations are mostly clear and convey the main points adequately. They demonstrate a good ability to articulate ideas and concepts.	The explanations are unclear or may lack coherence. They convey the main points but may require additional clarification.	
Reflection	The reflection demonstrates deep insight and critical thinking. It effectively connects personal experiences or observations to broader concepts or implications.	The reflection demonstrates some insight and critical thinking. It connects personal experiences or observations to broader concepts or implications to some extent.	The reflection is superficial and may lack depth or critical analysis. It attempts to connect personal experiences or observations to broader concepts or implications.	

V. Synthesis/Extended Practice/Differentiation

- In a ½ crosswise, rank the efficacy of each sensory technique from most effective to least effective. Provide a brief explanation for your ranking.

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Learning Area:	TLE 8	Quarter:	4
Lesson No.:	8	Date:	
Lesson Title/Topic:	Diagnostics and troubleshooting in automotive and small engine (automotive servicing, motorcycle/ small engine servicing) - Service Cost Diagnostic Scanners		
Name:		Grade & Section:	

I. Activity No.2: Reading Trouble Codes (15-20minutes)

II. **Objective(s):** Read and interpret the Diagnostic Trouble Codes (DTCs)

III. **Materials Needed:**

- Printed Handouts

IV. **Instructions:**

- You will be divided into small into small teams (3-4 students per team).
- The printed handouts containing sample diagnostic trouble codes (DTCs) will be distributed to each group.
- Practice reading and interpreting these DTCs using the knowledge gained from the lesson.
- Analyze each DTC and determine the possible issue indicated.
- Share the group interpretations of the DTCs and the possible issues you identified.
- During the presentation, ask questions.
- See the given rubrics for presentation.

Trouble Codes

1. P0575
2. P0500
3. B1927
4. B1203
5. P0650

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V. Synthesis/Extended Practice/Differentiation

- Review the importance of diagnostic scanners and how they contribute to vehicle maintenance and safety. In the $\frac{1}{2}$ crosswise, write your understanding of the importance of scanners for an automotive and small engine technician in the modern era.

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Learning Area:	TLE 8	Quarter:	4
Lesson No.:	8	Date:	
Lesson Title/ Topic:	Diagnostics and troubleshooting in automotive and small engine (automotive servicing, motorcycle/ small engine servicing) - Service Cost Testing the Components		
Name:		Grade & Section:	

I. Activity No.3: Diagnosing and Troubleshooting Challenge (15-20minutes)

II. Objective(s): Demonstrate basic knowledge in diagnosing and troubleshooting vehicles.

III. Materials Needed:

- **Handouts**

IV. Instructions:

- You will be divided into small groups.
- Work together to diagnose the problem using your theoretical knowledge.
- Identify the appropriate testing tool for diagnosing and troubleshooting the problem.
- Discuss possible causes and solutions based on the symptoms provided.
- Present your output in class.
- See rubrics for the presentation.

Situations

1. The vehicle's engine is cranking but not starting.
2. The vehicle's dashboard lights are flickering intermittently.
3. The vehicle's brake pedal feels spongy when pressed.
4. The vehicle's tire pressure warning light is illuminated.
5. The vehicle's exhaust emits black smoke.

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V. Synthesis/Extended Practice/Differentiation

- Give one testing tool you commonly observed used by an automotive or motorcycle technician. In $\frac{1}{2}$ crosswise, write your insight on why they usually used it for diagnosing or troubleshooting the vehicle.

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Learning Area:	TLE 8	Quarter:	4
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Lesson Title/Topic:	Diagnostics and troubleshooting in automotive and small engine (automotive servicing, motorcycle/ small engine servicing) - Service Cost Service Cost		
Name:		Grade & Section:	

I. Activity No.4: Understanding Service Costing: Replacement Material and Manpower Labor (15-20minutes)

II. Objective(s): Explain Replacement Material Costing and Manpower Labor Costing.

III. Materials Needed:

Board (Whiteboard/chalkboard)
Markers/Chalk
Projector or visual aids
Worksheets with examples
Calculator (optional)

IV. Instructions:

- You will be divided into small groups.
- Read the given worksheets with scenarios involving Replacement Material Costing and Manpower Labor Costing.
- Work together and present your work in class.
- See the rubric for the presentation.

Situations

1. You are a carpenter tasked with building wooden tables for a local café. Due to wear and tear, you must replace the damaged wooden planks used for the tabletops. Each new wooden plank costs P 35.00; you need 9 new planks. Calculate the total cost of replacing the wooden planks.
2. You work in a metal fabrication shop and have been assigned to weld metal frames for garden benches. You need to hire 3 welders to work for 6 hours each. The hourly wage for each welder is P 70.00. Calculate the total cost of hiring welders for the metalworking project.
3. You own an automotive repair shop, and a customer brings in a car with a damaged bumper. A replacement bumper costs P15,000.00, and you must hire a technician to install it. The technician charges P 100.00 per hour; the installation will take 3 hours.
 - Calculate the total cost of replacing the bumper.
 - Calculate the total cost of hiring the technician.
 - Calculate the combined total cost for both replacement materials and manpower labor.

Rubric for Presentation

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V. Synthesis/Extended Practice/Differentiation

Using a Venn diagram, illustrate the similarities and differences between replacement material costing and labor costing.

