

MINISTRY OF EDUCATION
SECONDARY ENGAGEMENT PROGRAMME

GRADE 11
CHEMISTRY

WEEK 8

LESSON 2 - WORKSHEET

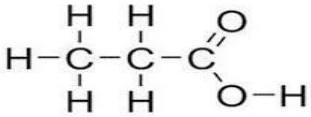
Choose the correct answer for items 1-9.

1. Which carboxylic acid has the highest boiling point?
 - A. Methanoic acid
 - B. Ethanoic acid
 - C. Propanoic acid
 - D. Butanoic acid

2. Which carboxylic acid has the lowest melting point?
 - A. Methanoic acid
 - B. Ethanoic acid
 - C. Propanoic acid
 - D. Butanoic acid

3. Which of the following compounds would be the most soluble in water?
- Pentanoic acid
 - Propanoic acid
 - Methanoic acid
 - Ethanoic acid
4. Which is the functional group of carboxylic acids?
- C=C
 - OH
 - COOH
 - R-COOR
5. Give the name of the following carboxylic acid
- CH₃ CH₂ CH₂ COOH**
- Propanoic acid
 - Butanoic acid
 - Methanoic acid
 - Pentanoic acid
6. Identify the general formula for carboxylic acids.
- C_nH_{2n}
 - C_nH_{2n+2}
 - C_nH_{2n+1}OH
 - C_nH_{2n+1}COOH
7. Which of the following statements is incorrect about carboxylic acids?
- They are not polar substances
 - They are organic compounds
 - They are weak acids
 - They have relatively high boiling points
8. Which of the following bonds is **not** present in a carboxylic acid functional group?
- O-H
 - C-O
 - C=O
 - C=C
9. The name given to the functional group of carboxylic acids is the
- Hydroxyl group
 - Carboxyl group
 - Hydrogen group
 - Acid group

10. Fill in the blanks in the table below

| NAME | MOLECULAR FORMULA | STRUCTURAL FORMULA |
|----------------|----------------------|---|
| METHANOIC ACID | | |
| | CH ₃ COOH | |
| | |  <p>The structural formula shows a central carbon atom bonded to three hydrogen atoms (forming a methyl group) and another carbon atom. This second carbon atom is double-bonded to an oxygen atom and single-bonded to a hydroxyl group (-OH).</p> |