

CONCEPT REVIEW  
**7**

# Solubility and concentration

EST

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Complete this concept review handout and keep it as a record of what you have learned.

## Definitions

- A solution is \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Solubility is \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- The concentration of a solution is \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- The concentration in PPM ("parts per million") is \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Molar concentration is \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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## Effects of various changes on the concentration of a solution

Change	Effect on the concentration
Dilution (addition of solvent)	
Dissolution (addition of solute)	

## Mathematical formulas and units of measurement

Formula for calculating concentration in g/L:

where \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Equivalences for 1 ppm:

$$1 \text{ ppm} = \frac{\text{g}}{\text{g}} = \frac{\text{mg}}{\text{g}} = \frac{\text{mg}}{\text{kg}}$$

In aqueous solutions:

$$1 \text{ ppm} \approx \text{---} \approx \text{---}$$

Formula for calculating molar concentration:

where \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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