Maths Study Template

Title

Write the overall topic
e.g., Dosage Calculations

Concept

State the key idea being applied:

- What type of problem is this?
- What concept or rule is being used?

Title:

Concept

Explanation	Formulae
Steps	Example question

Explanation

Briefly outline approach:

- steps are needed
- what to convert or calculate

Formulae

- List relevant formulae clearly
- Define variables if needed
- Only include what you will use

Steps

Outline a clear method:

- Identify variables from the question
- Show the order of steps
  (e.g., convert → calculate → final answer)
- Keep each step short and logical

Example question

Apply the method to a worked example:

- Include full working
- Show each step clearly
- Use correct units throughout

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Title: Weight-based dosage calculations

Calculating total dose from a dose per kg using patient weight and stock concentration

Convert mg/kg → actual dose, then use stock to find volume • Step 1: Find dose per kg in mL • Step 2: Multiply by patient weight	Dose per kg = $\frac{\text{stock required (mg/kg)}}{\text{stock strength (mg)}} \times \text{volume (mL)}$ Dose required = dose per kg × weight
1. Identify variables	Stock required = 25 mg/kg Weight = 30 kg Stock strength = 200 mg Volume = 5 mL
2. Find dose per kg into mL using stock	Dose per kg = $\frac{25\text{mg/kg}}{200\text{mg}} \times 5\text{ mL}$ Dose per kg = 0.625mL/kg
3. Multiply by weight	Dose required = 0.625mL/kg × 30kg
4. State final answer with units	Total dose = 18.75mL

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