

Ashes and Abs: Testing Calcium in Gladiator Tonic

Self-assessment rubrics

Self-Assessment

Evaluate your learning by marking with an X:

I have learned...	Very well	Well	Needs improvement
I understand what calcium is and why it's important.			
I can perform an EDTA titration.			
I understand what bioavailability is.			
I can propose strategies to improve absorption.			

Assessment Rubric: "The Gladiators' Drink"

Criteria	Excellent (3)	Good (2)	Needs Improvement (1)
Understanding of experimental procedure	Clearly and precisely explains the whole process	Explains the procedure with minor errors	Major errors or lack of understanding
Interpretation of results	Correctly calculates and interprets calcium content	Basic calculations and reasonable interpretation	Incorrect calculations or unclear interpretation
Comparison and critical analysis (milk vs. ashes)	Reasoned explanation of bioavailability and calcium	Differentiates quantity and absorption, but superficially	Poor understanding or confusion of concepts

Application of knowledge (absorption strategies)	Proposes 3 well-explained, relevant strategies	Proposes 2–3 strategies with partial justification	Unclear or unrelated strategies
Creativity and drink design	Original idea, with strong scientific rationale and engaging presentation	Good idea, though could improve in detail or justification	Weak or irrelevant proposal
Written expression and clarity	Clear writing with appropriate scientific vocabulary	Generally, correct but lacks precision	Difficulty expressing ideas or inappropriate vocabulary
Participation in the discussion (optional)	Actively participates, listens, and argues respectfully	Participates, but with little depth	Limited or disrespectful participation