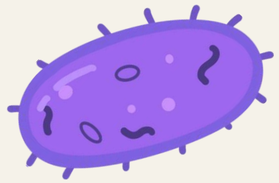


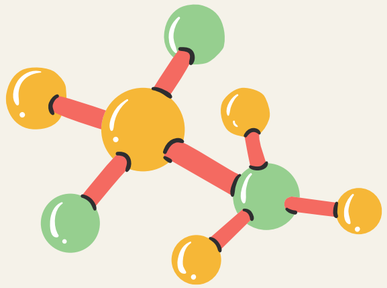
Instructional Desian

for Lesson on Antibiotic Resistance

Presenter: Shayla Nelson

Introduction

to Instructional Design for Antibiotic Resistance Lesson



What

A critical global health issue threatening the effectiveness of antibiotics

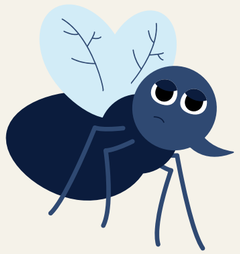
Why

To educate a broad audience about resistance mechanisms, consequences, and solutions

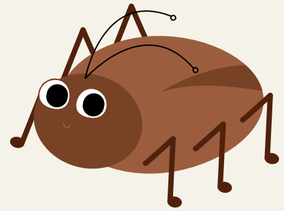
Who

Primary audience: Undergraduate and graduate STEM students

Secondary audience: General public, healthcare practitioners, and educators



Learner Analysis



Primary Audience

Undergraduate and graduate STEM students

Secondary Audience

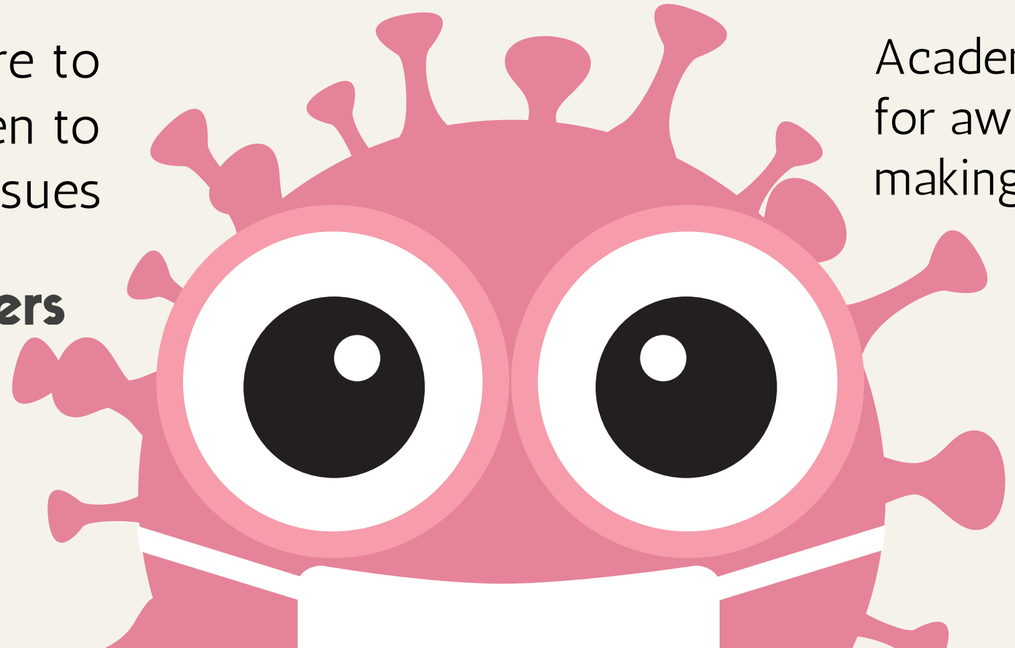
General public, healthcare practitioners, and educators

Common Traits

Familiarity with antibiotics, desire to understand resistance, driven to address real-world issues

Differences Amona Learners

Varying academic focus, technical background, learning goals, and range of ability



Motivation for Participation

Academic and professional goals, desire for awareness and informed decision-making

Instructional and Non-Instructional Needs

Access to digital tools, tailored materials, flexible delivery formats, adequate time, support from others, and clear communication

Needs Analysis

Instructional Problems and Learner Needs

Instructional Problems:

Lack of foundational knowledge

Insufficient data interpretation skills

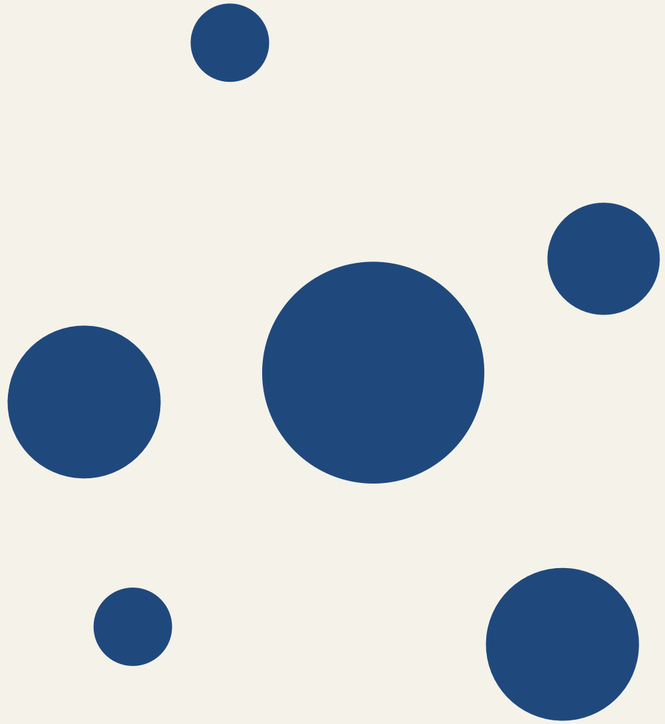
Disconnection from real-world contexts

Learner Needs:

Cognitive: Understanding resistance mechanisms

Affective: Motivation through relevance

Technical: Access to digital tools



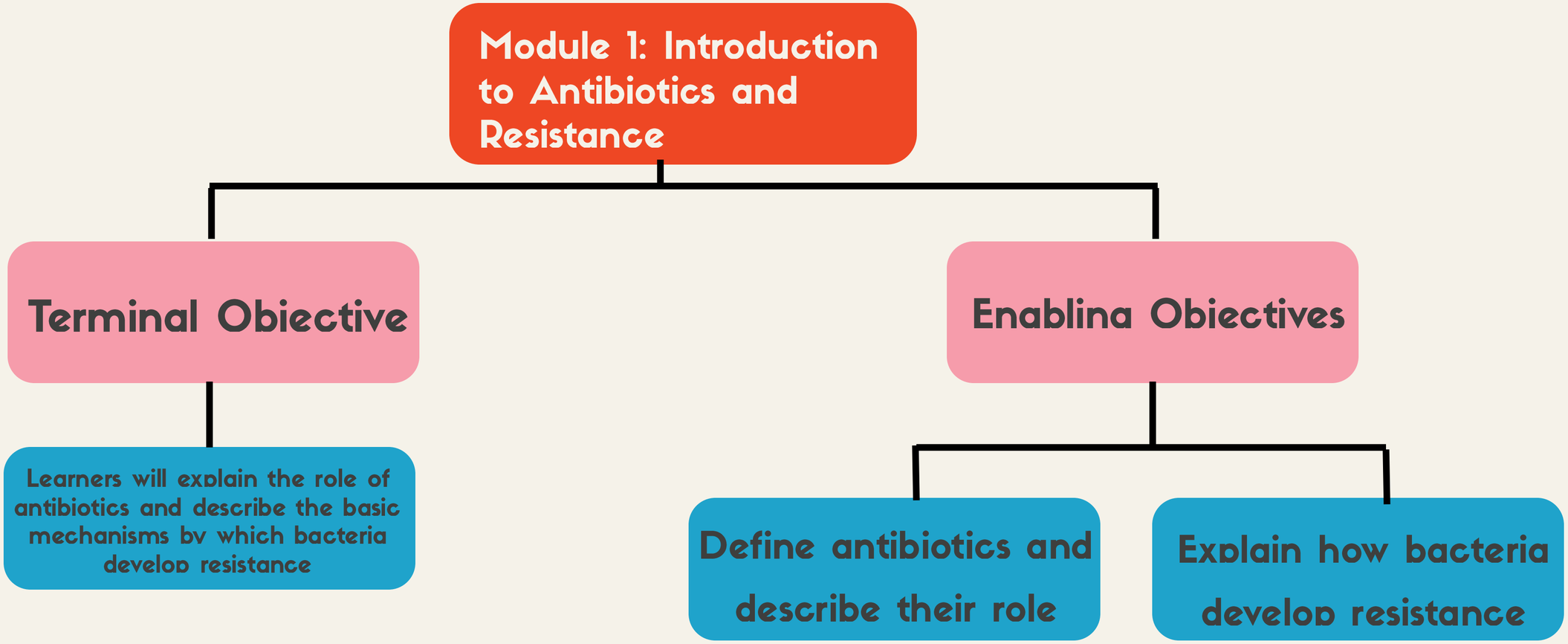
Task Analysis

Goal: Enable learners to analyze resistance mechanisms, understand implications, propose strategies

Task List

1. Understand basics of antibiotics and resistance
2. Identify mechanisms of resistance
3. Analyze global implications
4. Interpret data on resistant strains
5. Propose strategies to combat resistance
6. Communicate findings and recommendations

Terminal/Enablina Obiectives



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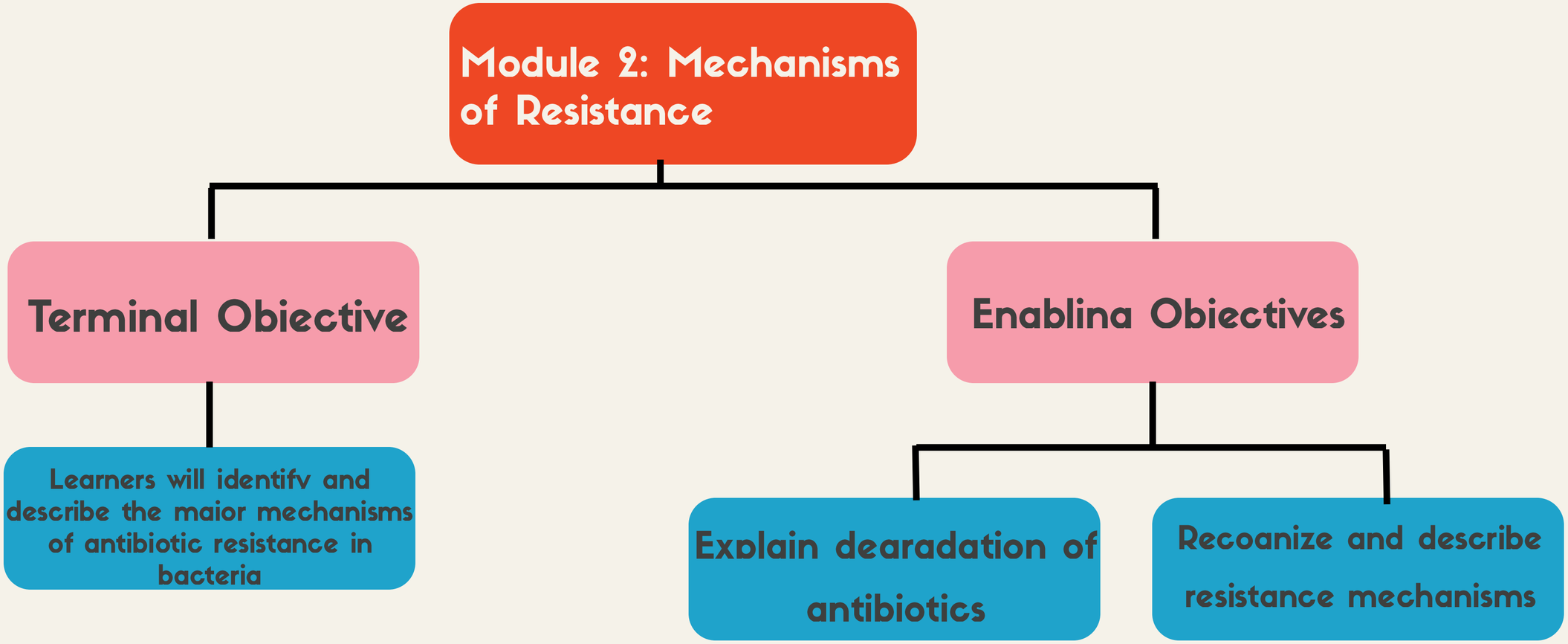

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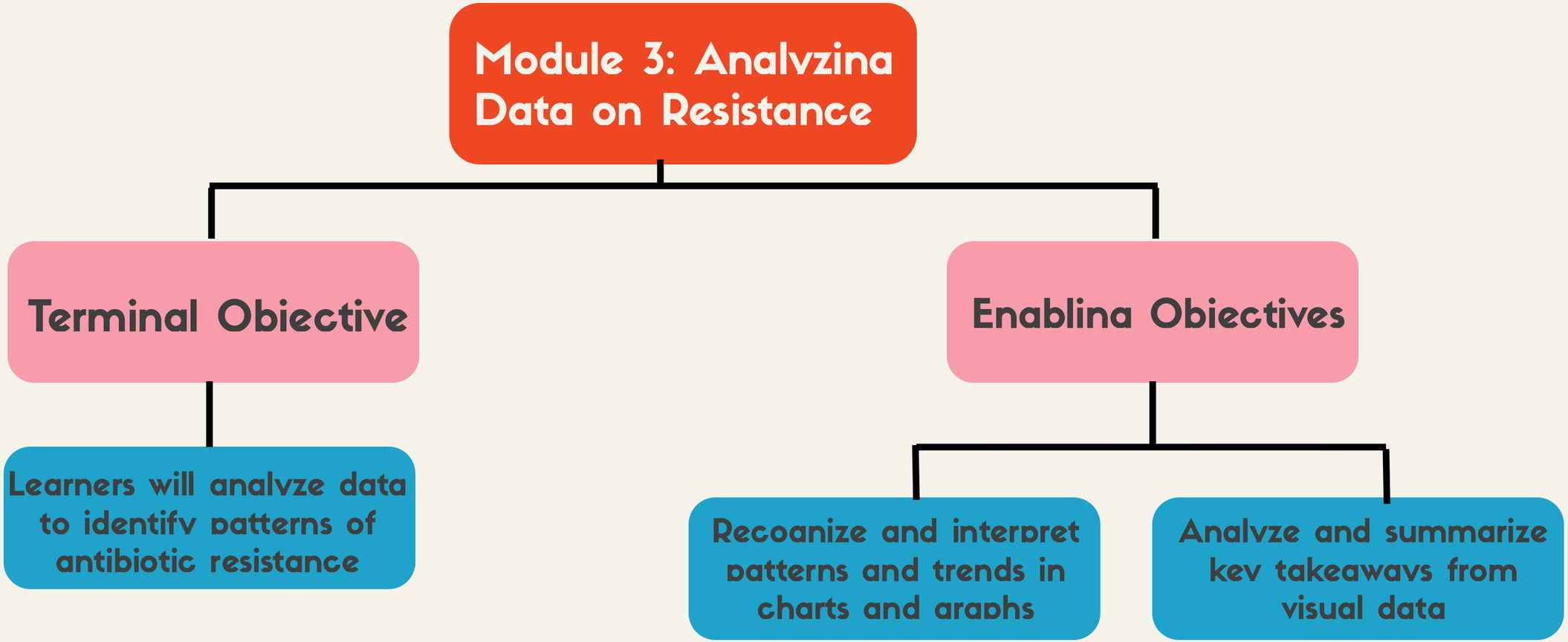

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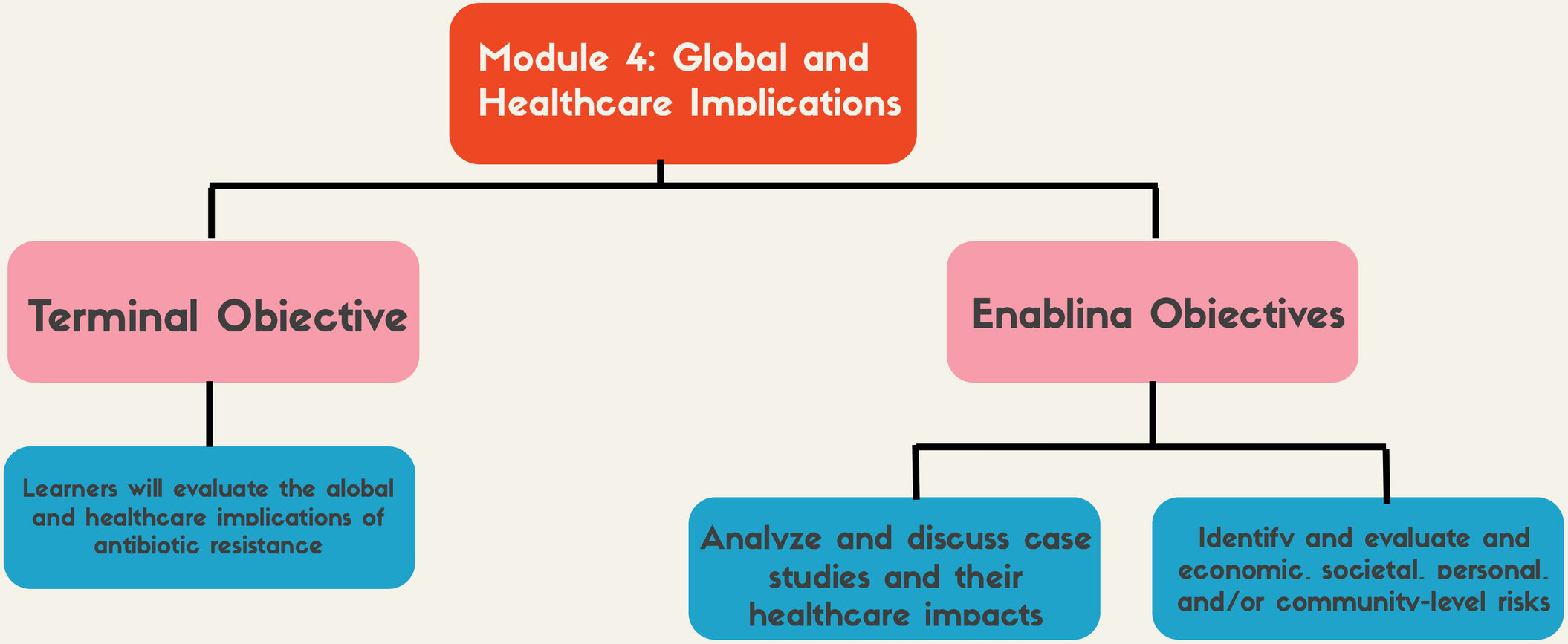

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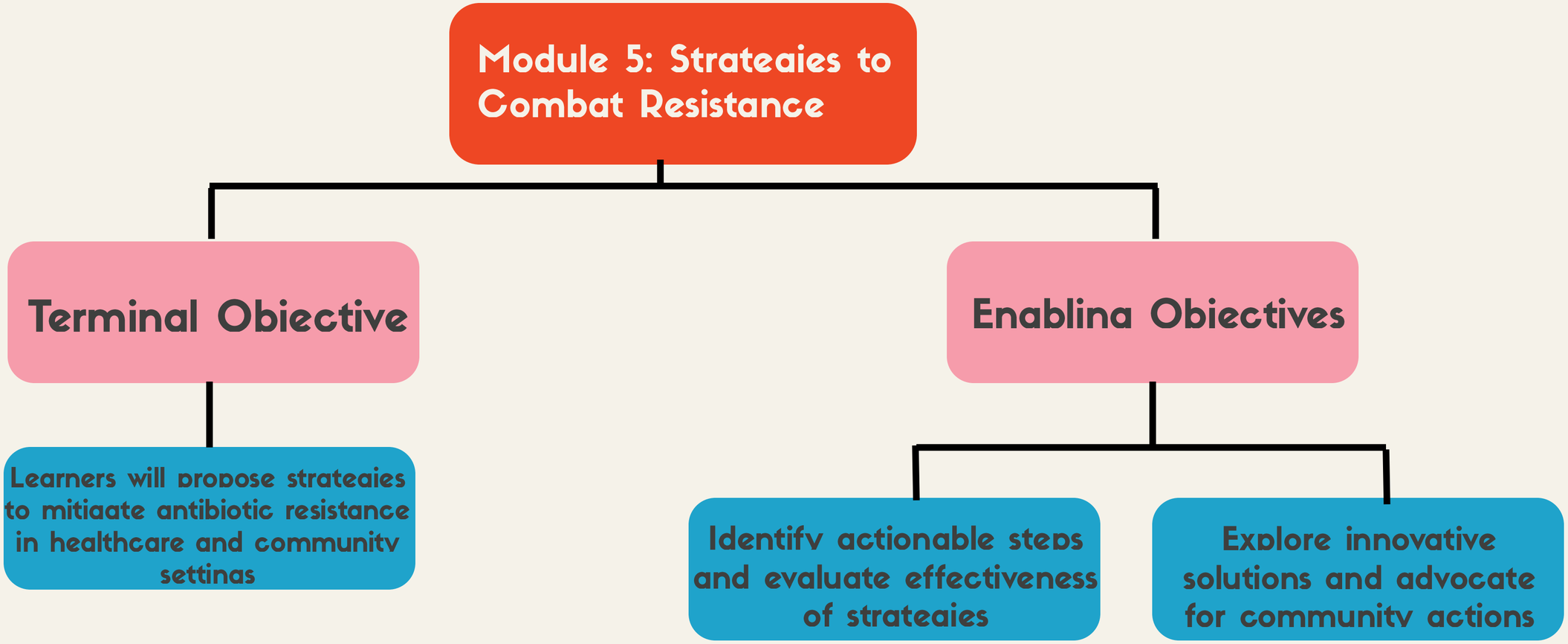

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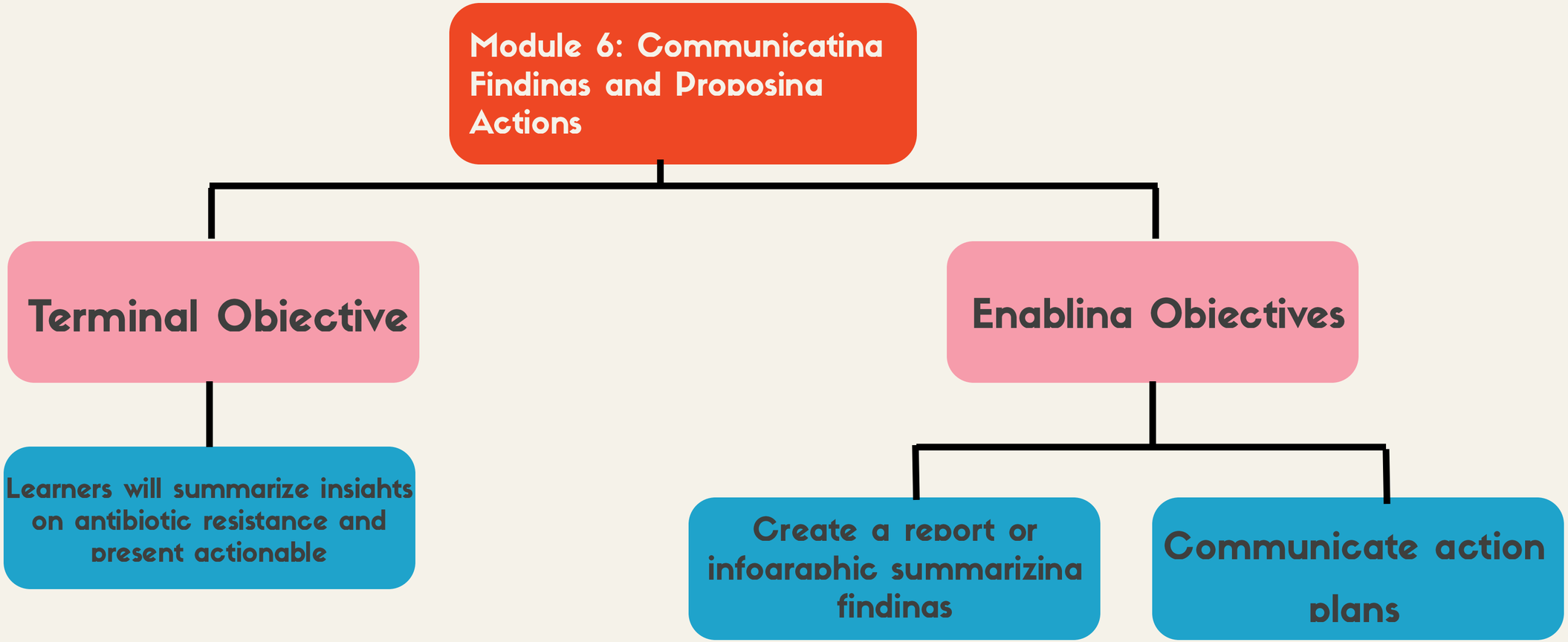


Assessment

Module 1: Quizzes, interactive activities

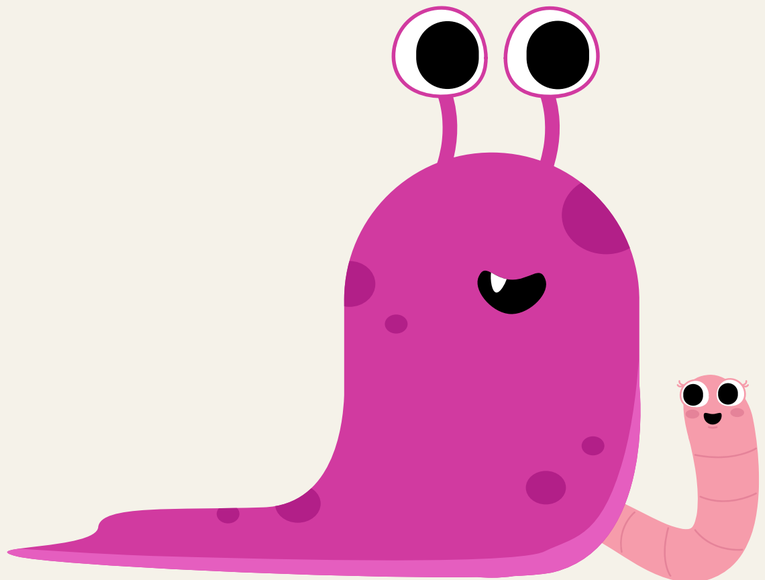
Module 2: Case studies, multiple-choice questions

Module 3: Data analysis, comprehension questions

Module 4: Essays, group discussions

Module 5: Action plans, facilitated conversations

Module 6: Presentations, reflective infographics



Nine Events of Instruction

Event 1: Gaining Attention
Real-world scenario video clip

Event 2: Informing Learners of Objectives
Clear objectives for each audience

Event 3: Stimulating Recall of Prior Learning
Quizzes, brainstorming activities

***Event 4: Presenting the Stimulus Material**
Structured modules

Event 5: Providing Learning Guidance
Interactive simulations, instructor support

Event 6: Eliciting the Performance
Hands-on activities

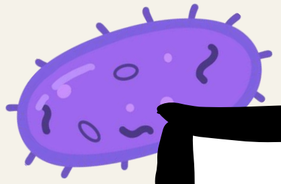
Event 7: Providing Feedback About Performance Correctness
Immediate, constructive feedback

Event 8: Assessing the Performance
Task-based assessments

Event 9: Enhancing Retention and Transfer
Real-world scenarios, post-training resources

*Event 4, "Presenting the Stimulus Material," involves addressing the terminal and enabling objectives through the instructional modules introduced on slides 6–11

Evaluation

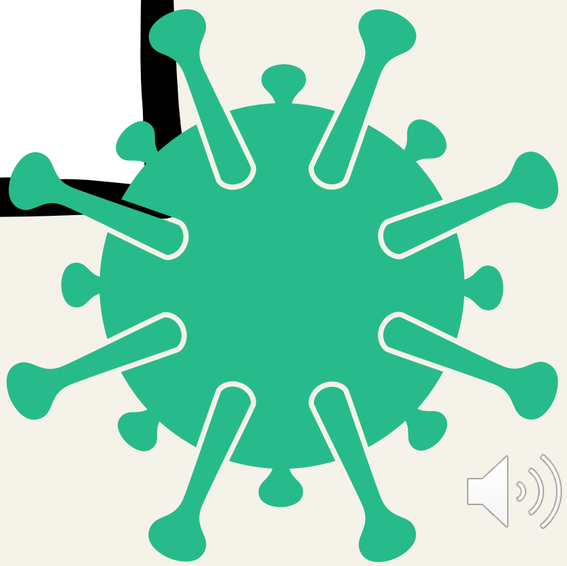


Formative Evaluation:

- Expert review
- One-to-one evaluation
- Small group evaluation
- Field test

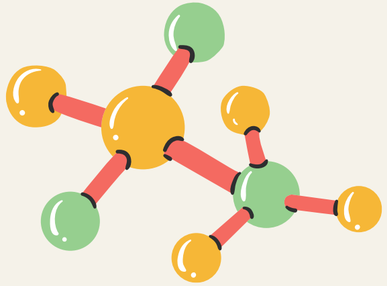
Summative Evaluation:

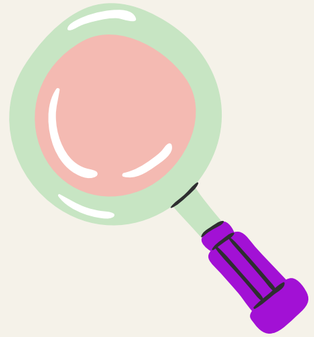
- Learner mastery
- Feedback and satisfaction surveys
- Long-term skill application review
- Impact on institutional and societal goals



Conclusion

to Instructional Design for Antibiotic Resistance Lesson





Summary

Addressing antibiotic resistance through targeted education

Impact

Preparing learners to tackle global health challenges

Next Steps

Implementing and refining the instructional module

Thank you!