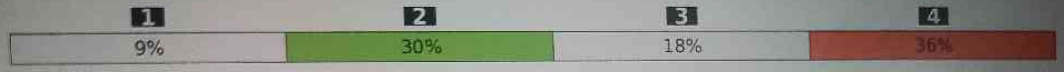
- thick and strong stems

1. only broad leaves
2. only broad leaves and waxy coating
3. only waxy coating and thick and strong stems
4. all - waxy coating, broad leaves and thick and strong stems

Critical | Identifying Structural Adaptations Of Fixed Aquatic Plants For Underwater Survival

Correct Option: 2



Answer and Distracter Explanation:
Students choosing option 2 correctly understand that fixed aquatic plants need broad leaves to capture maximum sunlight underwater for photosynthesis and waxy coatings to protect leaves from water damage. Students selecting option 1 think only broad leaves matter, but miss that waxy coatings are essential to keep water from blocking tiny holes in leaves. Students who chose option 3 wrongly believe thick stems help aquatic plants, but water already supports plants so they need flexible stems instead. Students picking option 4 think all features are helpful, but thick stems would make it hard for plants to bend with water currents.

T	4 Navy	25 June 2026	Test # 1
Sc	Seven Star Senior Secondary Public School		

Suggested Remedial Action:
Students must understand that fixed aquatic plants have specific adaptations for underwater survival. Key concepts include broad leaves that capture maximum sunlight in dim underwater conditions, and waxy coatings that protect leaves and prevent water from blocking stomata. Students often confuse aquatic plants with land plants, particularly thinking thick stems are always helpful. However, water provides natural support, making thick stems unnecessary and reducing flexibility needed for underwater currents. Aquatic Plant Feature Sort: Give students picture cards of plant parts and two boxes labelled 'Good for Water Plants' and 'Good for Land Plants'. Students sort broad leaves, thick stems, and waxy coatings whilst explaining their choices. Underwater Plant Drawing: Students draw their ideal underwater plant, including broad leaves and waxy surfaces whilst explaining why thick stems would be unhelpful in water currents. Plant Detective Activity: Show students photos of pond plants and challenge them to spot the broad leaves and shiny waxy coatings, discussing how these features help plants live successfully underwater.

Why do leaves have veins?