

Name _____

Unraveling the Mysteries of Algae: Not Quite Plants

Open-Ended Response Answer Key

1. Algae are not considered true plants because they lack specialized tissues like roots, stems, and leaves, and they exhibit a wider range of reproductive strategies including asexual reproduction through cell division and sexual reproduction involving the fusion of gametes.
2. Algae contribute to aquatic ecosystems as primary producers by producing oxygen through photosynthesis and serving as a food source for various organisms.
3. Algae possess diverse pigments such as chlorophyll, phycocyanin, fucoxanthin, and phycoerythrin, which enable them to capture sunlight for photosynthesis and adapt to different light conditions.
4. Mistaking algae for plants can lead to misunderstandings about their ecological roles and importance, potentially affecting conservation efforts and ecosystem management strategies.

