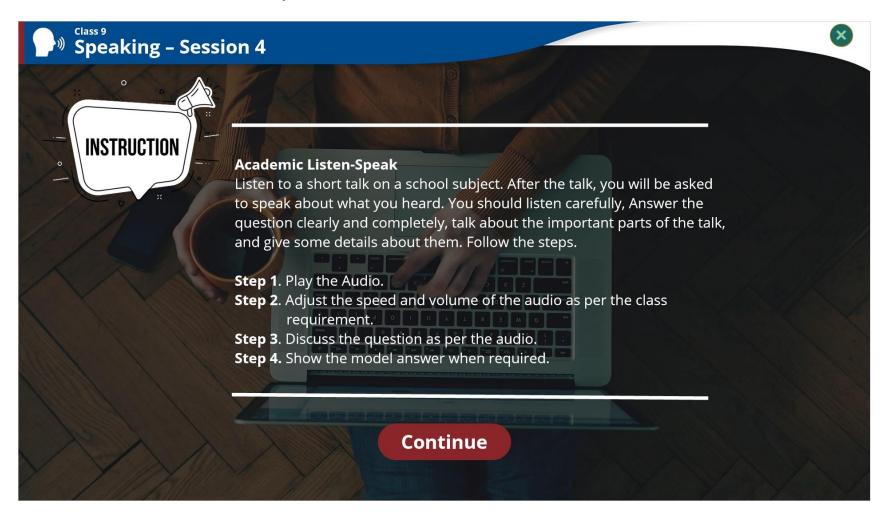
1.1 Introduction- Day 8 – Academic Listen – Speak



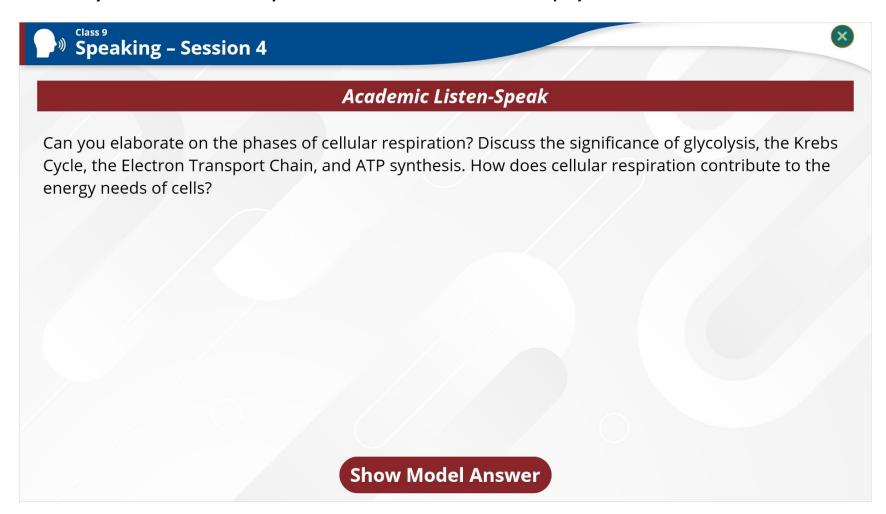
1.2 Instruction - Academic Listen-Speak





1.3 Activity 1 - Academic Listen-Speak

<< Click the Audio icon to play the audio.



Notes:

Audio Script

Greetings, advanced scholars! Today, we'll delve into the intricate process of cellular respiration, a fundamental mechanism by which cells extract energy from nutrients. Think of it as the powerhouse that fuels the activities of living organisms.

Glycolysis: The journey begins with glycolysis, a process occurring in the cell's cytoplasm. During glycolysis, a single glucose molecule is broken down into two pyruvate molecules, releasing a small amount of energy.

Krebs Cycle (Citric Acid Cycle): Following glycolysis, we enter the Krebs Cycle, which takes place in the mitochondria. The pyruvate molecules are further broken down, releasing carbon dioxide and generating energy-rich molecules like NADH and FADH2.

Electron Transport Chain: The next leg of the journey is the Electron Transport Chain, also located in the mitochondria. During this phase, the energy-rich molecules produced in the Krebs Cycle donate electrons, creating a flow of electrons that generates significant energy.

ATP Synthesis: The final destination is ATP synthesis, where the energy generated throughout the process is used to produce adenosine triphosphate (ATP), the cell's primary energy currency.

So, that's the complex process of cellular respiration! Now, let's assess your understanding.





Answer - Activity 1



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Academic Listen-Speak

Can you elaborate on the phases of cellular respiration? Discuss the significance of glycolysis, the Krebs Cycle, the Electron Transport Chain, and ATP synthesis. How does cellular respiration contribute to the energy needs of cells?

Model Answer



The teacher elucidated cellular respiration's four intricate phases. Glycolysis initiates the breakdown of glucose in the cytoplasm, followed by the Krebs Cycle in the mitochondria, generating energy-rich molecules. The Electron Transport Chain further utilizes these molecules to produce substantial energy. Finally, ATP synthesis completes the process, providing cells with the essential energy they need for various functions. Cellular respiration is a complex yet crucial mechanism that ensures the continual energy supply for cellular activities.

Next

1.4 Thank you

