

WORKING WITH DATA

Through *Working with Data* activities, students explore and analyze *How Do We Know?* figures from the text by answering a series of questions related to the experiments illustrated in those figures. These questions help students gain a deeper understanding of the experiments and their results. They also give students the opportunity to practice experimental design and data analysis skills.

BIOLOGY HOW LIFE WORKS

FIG. 3.2 What is the nature of the genetic material?

Chapter 3, Section 3.1

FIG. 7.12: Can a proton gradient drive the synthesis of ATP?

Chapter 7, Section 7.5

FIG. 8.3: Does the oxygen released by photosynthesis come from H₂O or CO₂?

Chapter 8, Section 8.1

FIG. 8.12: Do chlorophyll molecules operate on their own or in groups?

Chapter 8, Section 8.3

FIG. 16.14: How are simple traits inherited?

Chapter 16, Section 16.4

FIG. 18.10: What is the relative importance of genes and the environment for complex traits?

Chapter 18, Section 18.3

FIG. 21.4: How is genetic variation measured?

Chapter 21, Section 21.1

FIG. 22.7: Can a vicariance event cause speciation?

Chapter 22, Section 22.3

FIG. 24.8: When and where did the most recent common ancestor of all living humans live?

Chapter 24, Section 24.2

FIG. 26.19: How abundant are archaeons in the oceans?

Chapter 26, Section 26.5

FIG. 29.11: How large are the forces that allow leaves to pull water from the soil?

Chapter 29, Section 29.3

FIG. 35.11: What is the resting membrane potential and what changes in electrical activity occur during an action potential?

Chapter 35, Section 35.3

FIG. 36.20: How does the retina process visual information?

Chapter 36, Section 36.4

FIG. 37.9: How does filament overlap affect force generation in muscles?

Chapter 37, Section 37.2