

Science Fusion
Module A: Cells and Heredity
Homeschool Pacing Guide

Options for Instruction: Two parallel paths meet the unit objectives, with a strong inquiry strand woven into each. Follow the Print Path, the Digital Path, or your customized combination of print, digital, and inquiry.

Note: Many of the Labs require specialized scientific equipment. Please check the materials list in the TE.

Unit 1: Cells

Pacing Guide			
SE = Student Edition Interactive Worktext			TE = Teacher Edition
Days	Activity Type	Print	Digital
Unit 1 Opener			
Lesson 1: The Characteristics of Cells			
1-2 days	Big Idea	SE, pp. 1–3; *TE, pp. 14–15	
	Lesson	SE, pp. 4–11; *TE, pp. 24–27	Screens 1–12
1 day	Review	SE, pp. 12–13; *TE, p. 28	
1 day	Assessment		◊ Lesson 1 Quiz
(Optional)	Labs		† Quick Lab: Investigating Cell Size † Quick Lab: How Do Tools that Magnify Help Us Study Cells † Exploration Lab: Using a Microscope to Explore Cells

Lesson 2: Chemistry of Life			
1-2 days	Lesson	SE, pp. 14–21; *TE, pp. 38–41	Screens 1–9
1 day	Review	SE, pp. 22–23; *TE, p. 42	
1 day	Assessment		◊ Lesson 2 Quiz
(Optional)	Labs		† Quick Lab: Molecules for Life Processes † Quick Lab: Analyzing Cell Components
Lesson 3: Cell Structure and Function			
1-2 days	Lesson	SE, pp. 24–33; *TE, pp. 52–56	Screens 1–11
1 day	Virtual Lab		Screens 1–13
1 day	Review	SE, pp. 34–35; *TE, p. 57	
1 day	Assessment		◊ Lesson 3 Quiz
1 day	Enrichment	Think Science, SE, pp. 36–37; *TE, pp. 58–59	
(Optional)	Labs		† Quick Lab: Comparing Cells † Quick Lab: Making a 3-D Cell Model † Quick Lab: Cell Walls and Wilting
Lesson 4: Levels of Cellular Organization			
1-2 days	Lesson	SE, pp. 38–47; *TE, pp. 68–72	Screens 1–8
1 day	Review	SE, pp. 48–49; *TE, p. 73	
1 day	Assessment		◊ Lesson 4 Quiz
(Optional)	Labs		† Quick Lab: Evaluating Specialization † Quick Lab: Observing Plant Organs † Exploration Lab: The Organization of Organisms

Lesson 5: Homeostasis and Cell Processes			
1-2 days	Lesson	SE, pp. 50–59; *TE, pp. 82–86	Screens 1–13
1 day	Review	SE, pp. 60–61; *TE, p. 87	
1 day	Assessment		◊ Lesson 5 Quiz
1 day	Enrichment	S.T.E.M., SE, pp. 62–65; *TE, pp. 88–91	
(Optional)	Labs		† Quick Lab: Investigate Microorganisms † Exploration Lab: Diffusion
Lesson 6: Photosynthesis and Cellular Respiration			
1-2 days	Lesson	SE, pp. 66–75; *TE, pp. 100–104	Screens 1–10
1 day	Virtual Lab		Screens 1–16
1 day	Review	SE, pp. 76–77; *TE, p. 105	
1 day	Assessment		◊ Lesson 6 Quiz
(Optional)	Labs		† Quick Lab: Plant Cell Structures † Quick Lab: Investigate Carbon Dioxide † S.T.E.M. Lab: Investigate Rate of Carbon Dioxide
Unit 1 Review and Assessment			
1 day	Video-Based Project		Photosynthesis
1 day	Review	SE, pp. 80–86; *TE, pp. 106–109	Online Unit Self Quiz
1 day	Assessment		◊ Unit 1 Test

* The digital Teacher’s Edition can be accessed through the Online Teacher Digital Management System at the Lesson Level.

TE: Lesson Level Resources > Lesson Teacher Support > Teacher Edition

† Lab Manuals can be accessed through the Online Teacher Digital Management System at the Lesson Level.

Lab Manuals: Lesson Level Resources > Lesson Inquiry Resources > Lab Manuals

† Lab Datasheets can be accessed through the online Student Edition at the lesson level.
Lab Datasheets: Lesson Level Resources > Lab Datasheet

◇ Online Assessments can be assigned to students through the Online Teacher Digital Management System. After you have assigned a Lesson Quiz or Unit Test, the assignment will appear on your student's account in the Things to Do section. Students can then take the test online, and it will be scored automatically.

Lesson Quiz = Lesson Level Resources > Lesson Assessment > Lesson Quiz

Unit Test = Unit Level Resources > Unit Assessment > Unit Test

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Unit 2: Reproduction and Heredity

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SE = Student Edition Interactive Worktext			TE = Teacher Edition
Days	Activity Type	Print	Digital
Unit 2 Opener			
Lesson 1: Mitosis			
1-2 days	Big Idea	SE, pp. 87–89; *TE, pp. 126–127	
	Lesson	SE, pp. 91–97; *TE, pp. 136–139	Screens 1–14
1 day	Virtual Lab		Screens 1–14
1 day	Review	SE, pp. 98–99; *TE, p. 140	
1 day	Assessment		◊ Lesson 1 Quiz
(Optional)	Labs		† Quick Lab: Modeling Mitosis † Quick Lab: Mitosis Flipbooks † Quick Lab: DNA, Chromosomes, and Cell Division † Exploration Lab: Stages of the Cell Cycle

Lesson 2: Meiosis			
1-2 days	Lesson	SE, pp. 101–107; *TE, pp. 150–153	Screens 1–13
1 day	Review	SE, pp. 108–109; *TE, p. 154	
1 day	Assessment		◊ Lesson 2 Quiz
1 day	Enrichment	People in Science, SE, pp. 110–111; *TE, pp. 156–157	
(Optional)	Labs		† Quick Lab: Meiosis Flipbook † Quick Lab: Crossover and Meiosis
Lesson 3: Sexual and Asexual Reproduction			
1-2 days	Lesson	SE, pp. 112–119; *TE, pp. 166–169	Screens 1–9
1 day	Review	SE, pp. 120–121; *TE, p. 170	
1 day	Assessment		◊ Lesson 3 Quiz
(Optional)	Labs		† Quick Lab: Reproduction and Diversity † Quick Lab: Egg vs. Sperm † Quick Lab: Create a Classification System † Field Lab: Investigate Asexual Reproduction

Lesson 4: Heredity			
1-2 days	Lesson	SE, pp. 122–131; *TE, pp. 180–184	Screens 1–10
1 day	Virtual Lab		Screens 1–12
1 day	Review	SE, pp. 132–133; *TE, p. 185	
1 day	Assessment		◊ Lesson 4 Quiz
1 day	Enrichment	Think Science, SE, pp. 134–135; *TE, pp. 186–187	
(Optional)	Labs		† Quick Lab: Dominant Alleles † Quick Lab: What’s the Difference Between a Dominant Trait and a Recessive Trait?
Lesson 5: Punnett Squares and Pedigrees			
1-2 days	Lesson	SE, pp. 136–143; *TE, pp. 196–199	Screens 1–10
1 day	Review	SE, pp. 144–145; *TE, p. 200	
1 day	Assessment		◊ Lesson 5 Quiz
(Optional)	Labs		† Quick Lab: Gender Determination † Quick Lab: Interpreting Pedigree Charts † Quick Lab: Completing a Punnett Square † S.T.E.M. Lab: Matching Punnett Square Predictions

Lesson 6: DNA Structure and Function			
1-2 days	Lesson	SE, pp. 146–155; *TE, pp. 210–214	Screens 1–14
1 day	Review	SE, pp. 156–157; *TE, p. 215	
1 day	Assessment		◊ Lesson 6 Quiz
1 day	Enrichment	Think Science, SE, pp. 158–159; *TE, pp. 216–217	
(Optional)	Labs		† Quick Lab: Modeling DNA † Quick Lab: Building a DNA Sequence † Quick Lab: Mutations Cause Diversity † Exploration Lab: Extracting DNA
Lesson 7: Biotechnology			
1-2 days	Lesson	SE, pp. 160–167; *TE, pp. 226–229	Screens 1–10
1 day	Review	SE, pp. 168–169; *TE, p. 230	
1 day	Assessment		◊ Lesson 7 Quiz
(Optional)	Labs		† Quick Lab: How Can a Simple Code be Used to Make a Product? † Quick Lab: Observing Selective Breeding
Unit 2 Review and Assessment			
1 day	Video-Based Project		An Inside View
1 day	Review	SE, pp. 172–178; *TE, pp. 232–235	Online Unit Self Quiz
1 day	Assessment		◊ Unit 2 Test

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