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Science 150

SCHEDULE PLUS

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Thank you for downloading this sample of Sonlight's Science A Instructor's Guide (what we affectionately refer to as an IG). In order to give you a full perspective on our Instructor's Guides, this sample will include parts from every section that is included in the full IG.

Here's a quick overview of what you'll find in this sample.

- A **Quick Start Guide** START HERE
- A 3-week **Schedule**

SONLIGHT'S "SECRET" COMES DOWN TO THIS:

We believe most children respond more positively to great literature than they do to textbooks. To properly use this sample to teach your student, you will need the books that are scheduled in it. We include all the books you will need when you purchase a package from sonlight.com.

Curriculum experts develop each IG to ensure that you have everything you need for your homeschool day. Every IG offers a customizable homeschool schedule, complete lesson plans, pertinent activities, and thoughtful questions to aid your students' comprehension. It includes handy teaching tips and pointers so you can homeschool with confidence all year long.

If you need any help using or customizing our IGs, please reach out to our experienced homeschool advisors at sonlight.com/advisors.

We hope you enjoy using this sample. For even more information about Sonlight's IGs, please visit: sonlight.com/ig. It would be our pleasure to serve you as you begin your homeschool journey.

If you like what you see in this sample, visit sonlight.com/science to order your Science package.

Blessings!

Sarita Holzmann,
Co-founder and president
of Sonlight Curriculum

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Dear Prospective Sonlighter,

Thank you so much for downloading this sample Sonlight Instructor's Guide (referred to as the Science Schedule Plus at this level). Here's a quick overview of what you'll find in the full IG...and in this sample.

Science consists of two main pieces:

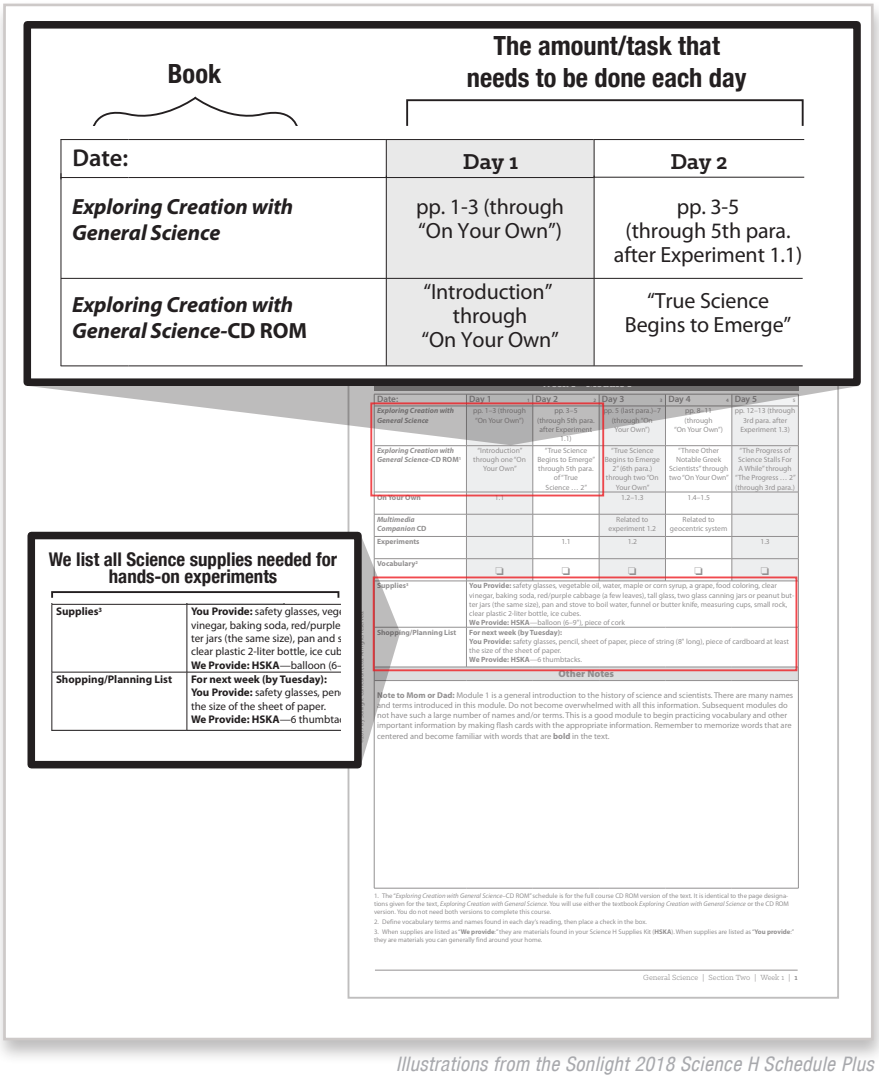
- A weekly SCHEDULE
- Plus some EXTRA HELPS

SCHEDULE Overview

- The Science Schedule Plus weekly schedules let you see your entire week at a glance.
- The first column lists the titles of each book or assignment. Follow either the Textbook OR the CD-ROM version (but not both).
- The remaining columns include the day-by-day assigned pages or tasks.
- Check off or date each assignment as you go to create instant records of what you and your children have done.

Some customers follow our schedules rigidly: they do everything listed for the day during that day. Others read ahead, or drop an assignment, or work through several days' worth of one type of assignment one day, and several days' worth of another subject on another day. . . .

It's your Instructor's Guide. Use it as best suits your needs.



Illustrations from the Sonlight 2018 Science H Schedule Plus

EXTRA HELP Overview

Immediately following each week's schedule page, you will find vocabulary your children will need to memorize.

Your primary task: read the assigned pages in the Textbook or on the computer (CD-ROM) listed in the schedule, then memorize the vocabulary terms.

You'll find comprehension questions throughout the textbook or CD-ROM as well as tests for each module. Tests can be printed out from the CD-ROM or sold as a separate packet with the Textbook version.

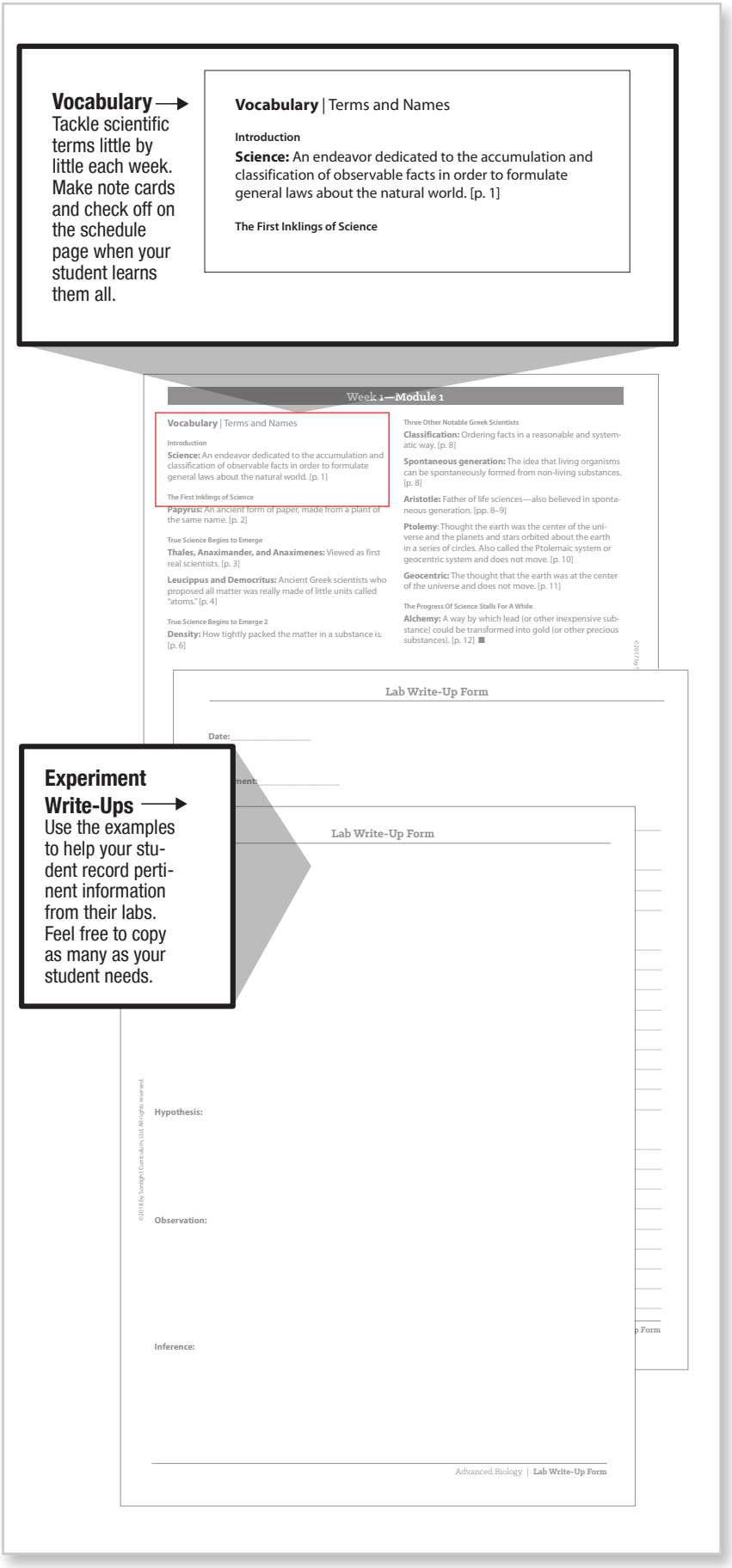
The back section of the Science Schedule Plus includes experiment write-ups to use in conjunction with the labs you complete each week. Each experiment is scheduled out for you.

Enjoy your sample. . . . And we look forward to serving you in the very near future.

Sincerely,

Sarita Holzmann, President

PS: For more information about Sonlight's Instructor's Guides, please visit sonlight.com/IGs



Illustrations from the Sonlight 2018 Science H Schedule Plus

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150

Ages 12–16
Grades 7–11

Science

Physical Science Schedule Plus

By Sandy Hotz

Section Two

Schedule and Notes

Week 1—Module 1

Date:	Day 1 [1]	Day 2 [2]	Day 3 [3]	Day 4 [4]	Day 5 [5]
Exploring Creation with Physical Science	pp. 1–4 (through Figure 1.1)	pp. 4–7 (mid-page)	pp. 7–11 (bottom)	pp. 11–14 (mid-page)	pp. 14–17 (mid-page)
***Exploring Creation with Physical Science*-CD ROM[1]**	"Introduction" through Figure 1.1 in "Atoms and Molecules 2"	"Atoms and Molecules 2" (after Figure 1.1) through "Atoms and Molecules 3" through two "On Your Own"	"Measurement and Units" through "Manipulating Units"	"Converting Between Units" through three "On Your Own"	"Converting Between Systems" through "Converting Between Systems 3" through three "On Your Own"
***Multimedia Companion* CD**		Related to Figure 1.2		Example 1.1	Example 1.2
On Your Own		1.1–1.2		1.3–1.5	1.6–1.8
Experiments	Perform & write-up Experiment 1.1				Perform & write-up Experiment 1.2
Vocabulary[2]	❑		❑		
Supplies[3]	**We Provide: 150-35**—9-volt battery, insulated wire. **You Provide:** small glass, baking soda, tap water, scissors, tape (preferably electrical tape), spoon, long piece of string, large table top, cellophane tape, pencil, helper.				
Shopping/Planning List	**For next week:** **We provide: 150-35**—6 calcium carbonate tablets (such as TUMS®). **You provide:** vinegar (approx. 4 cups), water, measuring cups, 3 large glasses, spoon.				

Other Notes

1. The "Exploring Creation with Physical Science–CD ROM" schedule is for the full course CD ROM version of the text. It is identical to the page designations given for the text, *Exploring Creation with Physical Science*. You will use either the textbook *Exploring Creation with Physical Science* or the CD ROM version. You do not need both versions to complete this course.

2. Define Vocabulary terms and names found in each day's reading, then place a check in the box.

3. When supplies are listed as **"We provide:"** they are materials found in your Science Supplies Kit 150 **(150-35)**. When supplies are listed as **"You provide:"** they are materials you can generally find around your home.

Vocabulary | Terms and Names

Atoms and Molecules

Atom: The smallest chemical unit of matter. [p. 3]

Molecule: Two or more atoms linked together to make a substance with unique properties. [p. 4]

The Metric System

Metric measurements: mass = gram; weight = Newton; distance = meter; volume = liter; time = seconds. [p. 9]

English units of measurement: mass = slug; weight = pounds; distance = foot; volume = gallon; time = seconds. [p. 9]

Milli (m): 0.001 (thousandths). [p. 11]

Centi (c): 0.01 (hundredths). [p. 11]

Kilo (k): 1,000 (thousand). [p. 11] ■

Week 2—Module 1

Date:	Day 1 6	Day 2 7	Day 3 8	Day 4 9	Day 5 10
Exploring Creation with Physical Science	pp. 17–20	Study Guide p. 24 Questions #1–6; Review	Study Guide p. 24 Questions #7–14; Review	Summary of Module 1 pp. 449–450; Review	Test for Module 1
***Exploring Creation with Physical Science*-CD ROM**	"Concentration" through "Concentration 3" through two "On Your Own"	Study Guide Questions #1–6; Review	Study Guide Questions #7–14; Review	Summary of Module 1; Review	Test for Module 1
***Multimedia Companion* CD**	Concentration can affect a chemical's behavior				
On Your Own	1.9–1.10				
Experiments	Perform & write-up Experiment 1.3				
Vocabulary	❑				
Supplies	**We Provide: 150-35**—6 calcium carbonate tablets (such as TUMS®). **You Provide:** vinegar (approx. 4 cups), water, measuring cups, 3 large glasses, spoon.				
Shopping/Planning List	**For next week:** **We provide: 150-35**—candle, matches, thermometer, yeast, balloon. **You provide:** small glass, 2 cotton balls, water, small piece of plastic; large glass or jar, 2 cups hydrogen peroxide, bottle (plastic, 1-liter soda bottle, for example), teaspoon, large clear Ziploc® freezer bag, vinegar, baking soda, safety glasses.				

Other Notes

Vocabulary | Terms and Names

Concentration

Concentration: The quantity of a substance within a certain volume. [p. 17] ■

Week 3—Module 2

Date:	Day 1 11	Day 2 12	Day 3 13	Day 4 14	Day 5 15
Exploring Creation with Physical Science	pp. 25–27	pp. 28–32 (top)	pp. 32–36 (mid-page)	pp. 36–41 (top)	pp. 41–44 (bottom)
***Exploring Creation with Physical Science*-CD ROM**	"Introduction" and "Air and Humidity" through two "On Your Own"	"The Composition of Air" through two "On Your Own"	"Carbon Dioxide in the Air" through two "On Your Own"	"Global Warming" through one "On Your Own"	"Parts per Million" through "Ozone 2" through three "On Your Own"
***Multimedia Companion* CD**		Related to Figure 2.1 & "extreme" Experiment 2.2	Related to Figure 2.4		Example 2.1 & Related to Figure 2.8
On Your Own	2.1–2.2	2.3–2.4	2.5–2.6	2.7	2.8–2.10
Experiments	Perform & write-up Experiment 2.1	Perform & write-up Experiment 2.2	Perform & write-up Experiment 2.3		
Vocabulary	❑		❑	❑	❑
Supplies	**We Provide: 150-35**—candle, matches, thermometer, yeast, balloon. **You Provide:** small glass, 2 cotton balls, water, small piece of plastic; large glass or jar, 2 cups hydrogen peroxide, bottle (plastic, 1-liter soda bottle, for example), teaspoon, large clear Ziploc® freezer bag, vinegar, baking soda, safety glasses.				

Other Notes

Vocabulary | Terms and Names

The Air and Humidity

Humidity: The moisture content of air. [p. 25]

Heat index: A combination of temperature and humidity. [p. 26]

Absolute humidity: The mass of water vapor contained in a certain volume of air. [p. 27]

Relative humidity: The ratio of the mass of water vapor in the air at a given temperature to the maximum mass of water vapor the air could hold at that temperature, expressed as a percentage. [p. 27]

Carbon Dioxide in the Air

Greenhouse effect: The process by which certain gases (principally water vapor, carbon dioxide, and methane) trap heat that radiates from the earth. [p. 32]

Global Warming

Global warming: If the concentration of carbon dioxide (and the other greenhouse gases) were to increase too much, the earth would get too warm. [p. 36]

Parts Per Million

Parts per million: (ppm) The number of molecules (or atoms) of a substance in a mixture for every one million molecules (or atoms) in that mixture. [p. 41] ■

Forms for Experiment Write-Ups

Physical Science Experiment Write-Up—Example 1

Date: _____

Experiment #: _____

Title/Purpose: _____

Supplies: _____

_____

_____

Procedure:_____

_____

_____

_____

_____

_____

Hypothesis:_____

_____

_____

_____

_____

_____

_____

Data/Observation: _____

Inference: (What was learned)

Physical Science Experiment Write-Up—Example 2

Date:

Experiment: #

Purpose (from the introduction)**:**

Supplies:

Procedure:

Observation/Data:
(what happened)

Conclusion:
(what was learned)

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2019-2020 CATALOG

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