



SCIENCE D **WEEK 1** **SCHEDULE**

Date:	Day 1 ¹	Day 2 ²	Day 3 ³	Day 4 ⁴	Day 5 ⁵
Real Science 4 Kids: Biology Level I	1.1–1.2	1.3	1.4	1.5	
Activity Sheet Questions	#1–3 N ¹	#4–6	#7–8	#9–10	
Discover & Do Level 3 DVD		Track #51			
5-Day: The Usborne Science Encyclopedia ²					pp. 3–5
5-Day: Activity Sheet Questions					#11–13
Optional: Lyrical Life Science 1	Introduction N	chaps. 1, 6			
Optional: Do Together		Kingdom Poster Board		What's in a Name	

Other Notes

1. The **N** symbol means there is an important note immediately following the schedule.
 2. While *The Usborne Science Encyclopedia* is used in both the 5- and 4-Day schedules, we will label it as 5-Day when it is used on Day 5. Consider it optional if you are following the 4-Day schedule.

Day 1

Real Science 4 Kids: Biology Level 1 | 1.1–1.2

The book credits Carolus Linneaus as being the founder of taxonomy, but a case can be made for Aristotle (ca. 384–322 B.C.) being the founder of taxonomy. The beginnings of taxonomy, then, resulted from the interests of an ancient philosopher trying to make organizational sense out of life. It may be better to say that Linneaus refined taxonomy, resulting in its modern scientific form, or that he is the founder of “modern” taxonomy. [p. 3]

Activity Sheet Questions | #1–3

Activity Sheet Questions

Note to Mom or Dad: Find each week’s Activity Sheets immediately after the notes and answer the questions assigned on the schedule page. Each Activity Sheet has a corresponding Answer Key page at the end of each week’s notes.

You do not have to do every question on the Activity Sheets. Feel free to adjust and/or omit activities to meet the needs of your children. We cover the same concepts repeatedly throughout the year (and years to come!) to enable students to learn “naturally” through repetition and practice over time.

Please don’t expect your children to write the answers until they gain considerable proficiency at handwriting. We have provided a variety of activities to interest and challenge your children. Feel free to let your children do those activities that he enjoys and simply talk through others.


We have provided space for you to fill in answers as your children respond verbally, or simply check off the items that you discuss.

Remember: this program is designed for you to use to meet your children’s needs. It is not meant to use you!

Suggestion: your Activity Sheets might work more easily in a small binder for your children to keep and use as assigned. If you have more than one child using this program, extra Activity Sheets can be purchased for each child (Item #DSG1).

Occasionally we assign a “cut-out” activity. Please find these separate sheets immediately after week 36. If you like, color the sheets first, then cut them out and attach them to the worksheet.

Optional: Lyrical Life Science 1 | Introduction

Note to Mom or Dad: The publisher of *Lyrical Life Science* has created 2 new songs for volume 1: one song about cell organelles and the other about protists. To accompany these songs, they have created new text and workbook pages. All of these new materials are now available for FREE on their website. You may also visit our IG Link page for a link to their site. 

Day 2

Real Science 4 Kids: Biology Level 1 | 1.3**Activity Sheet Questions** | #4–6**Discover & Do Level 3 DVD** | Track #51**Optional: Lyrical Life Science 1** | Chapters 1, 6**Optional: Do Together** | Kingdom Poster Board

For a fun time, help your children create a poster board about one of the five Kingdoms. You’ll need a piece of poster board, as well as pencils, pens, crayons, colored pencils, scissors, and glue.

Help your children choose one of the five Kingdoms that they would like to learn more about, and then help them find more information on the Internet. As they learn new and interesting facts, help them to make notes about this information. If they find interesting pictures, be sure to print some of them for your children to use on their poster board.

When they have learned a lot about their chosen Kingdom, help them to gather their pictures and facts. Which pictures and facts do they want to highlight on their poster board? Which things would other people most want to know about this Kingdom? Do they have pictures of sample species from within the Kingdom? When your children are finished with their poster board, find a place to hang it so that others can see their work.

Day 3

Real Science 4 Kids: Biology Level 1 | 1.4**Activity Sheet Questions** | #7–8**Optional: Lyrical Life Science 1** | Chapters 1, 6

Day 4

Real Science 4 Kids: Biology Level 1 | 1.5**Activity Sheet Questions** | #9–10**Optional: Lyrical Life Science 1** | Chapters 1, 6**Optional: Do Together** | What’s in a Name

And the LORD God said, “It is not good that man should be alone; I will make him a helper comparable to him.” Out of the ground the LORD God formed every beast of the field and every bird of the air, and brought them to Adam to see what he would call them. And whatever Adam called each living creature, that was its name. So Adam gave names to all cattle, to the birds of the air, and to every beast of the field. But for Adam there was not found a helper comparable to him. Genesis 2:18–20 (NKJV)

The process that scientists use today to name new species seems much more complicated than the plan God used with Adam. Ask your children: if they had been Adam, would they have enjoyed naming all the animals? Why or why not?

Today, give them a chance to do just that. That's right! Let them name some animals. Use an encyclopedia or the Internet to find some pictures of animals that your children may not recognize. Pick 5 or 10 animals and then show the pictures to your children. What would they name the animal? Why? When they're done, share with them the real names of the animals. Did they come close on any of them?

If they enjoy this activity, feel free to repeat it with additional animals. Have fun!

Day 5

5-Day: *The Usborne Science Encyclopedia* | pp. 3–5

The guide to the book notes “simple experiments” on some pages of the text. Feel free to consider these experiments as optional, as you and your children will have plenty of scheduled experimenting to do with other books in this level. [p. 3]

The book is somewhat speculative about how early people may or may not have viewed counting and numbers. Some of the greatest mathematical thinkers lived in ancient times, so the idea that people of the past didn't have much of a clue regarding math, counting, and numbers is something of a stretch. An astute understanding of certain areas of mathematics was necessary in building ancient structures such as the pyramids of Egypt, for example. [p. 4]

5-Day: Activity Sheet Questions | #11–13

Optional: *Lyrical Life Science 1* | Chapters 1, 6 ■

Week 1 Activity Sheets



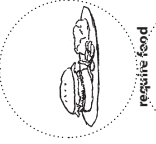





Real Science 4 Kids: Biology Level 1

1. Write the meanings of the two Greek words that make up the word *biology* below. (1.1)
Remember, it is okay for you to act as a scribe on these sheets until your child is proficient at writing.

bios: _____ (life) **logos:** _____ (description)

Write your own definition of *biology* here: _____
(Answers will vary.)

2. Circle the characteristics of living things: (1.3)

 can smile	 they reproduce	 require food
 some move freely in their environment	 have skin	 eventually die
 have legs	 breathe air	

3. Why is taxonomy helpful to scientists? (1.2)
- Because it better shows scientists each animal's particular color.
 - By organizing types of living things, scientists can better study their similarities and differences.
 - By organizing types of living things, scientists better know what to feed them at the zoo.
 - Because organizing living things into groups helps scientists share the work of studying them.
- Write the name of the scientist who founded taxonomy here:
_____ (Carolus Linnaeus)

Week 1 Activity Sheets

4. Write the names of the five kingdoms scientists use below. (1.3)

 P <i>(Plantae)</i>	 P <i>(Protista)</i>	 A <i>(Animalia)</i>	 M <i>(Monera)</i>	 F <i>(Fungi)</i>
--	---	---	---	--

5. Which characteristic determines the kingdom in which an organism will be placed? Circle your answer. (1.3, p. 4)

- where it lives bone structure its coloring cell structure

6. Fill in the chart below with the missing information about the different kingdoms. (1.3, pp. 5-6)

Kingdom	Sample Creature <i>(Answers will vary.)</i>	Interesting Fact
Animalia <i>(plantae)</i>	Sycamore tree	All animals have animal cells.
Fungi <i>(protista)</i>	Euglenas, Amoebas	All plants have <i>(plant)</i> cells.
Monera	Common creature shapes include rods, spheres and spirals.	Members of this kingdom were once grouped with plants in the Plant Kingdom.







Some members in this group have plant-like features, and others have *(animal-like)* features.

Most members are *(unicellular)*, which means they only have one cell.

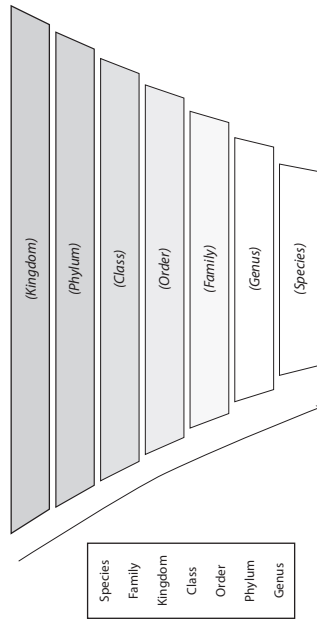
7. Why aren't frogs and cats part of the same family? (1.4)
- Because frogs live on both land and water and cats nurse their young.
 - Because frogs live in the water and cats live on land.

Week 1 Activity Sheets

8. Match the characteristic descriptions to the animal pair that best define each. Write the letter on the line. (1.4)

	Phylum: Mollusca	(b) _____		Phylum: Chordata	a. has a horny beak / is cold blooded
	Class: Aves	(a) _____		Class: Reptilia	b. has a soft body / has a backbone
	Order: Falconiformes	(c) _____		Order: Sphenisciformes	c. sharply hooked beak / flightless; live near oceans

9. Use the words in the box to order the classification categories into the funnel below. (1.4–1.5)



10. Are you a Homo sapien? (1.5)

Yes

No

Week 1 Activity Sheets

5-Day: The Usborne Science Encyclopedia

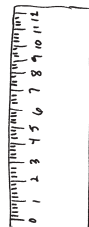
11. Write your age, your father's age and your grandfather's age in Roman and Arabic numerals. (pp. 4–5)

Roman numerals:	I	II	III	IV	V	VI	VII	VIII	IX	X	L
Arabic numerals:	1	2	3	4	5	6	7	8	9	10	50

My age: Arabic: _____ Roman: _____ **My grandfather's age:** Arabic: _____ Roman: _____
 Roman: (Answers will vary.)

12. What are some of the advantages of the Arabic system. Check three that are true. (pp. 4–5)

- Arabic is shorter and simpler to write.
- Arabic simplifies things so you don't have to add/subtract symbols together to figure out a number.
- Arabic value for zero.
- Arabic only adds ones and tens and hundreds.



13. a. **Challenge!** What does the prefix "bi" mean? (two) _____ (pp. 4–5)

How many symbols are used in a binary system? (two) _____

b. Computers use the symbols 0 and 1. (1) _____ (pp. 4–5)

c. What base system do clocks use? (base 60) _____ (pp. 4–5)

Week 1 Activity Sheets



Real Science 4 Kids: Biology Level 1

1. Write the meanings of the two Greek words that make up the word *biology* below. (1.1)

Remember, it is okay for you to act as a scribe on these sheets until your child is proficient at writing.

bios: _____ **logos:** _____

Write your own definition of *biology* here: _____

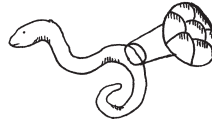
2. Circle the characteristics of living things. (1.1)



can smile



they reproduce



have skin



require food



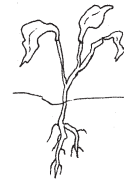
some move freely in
their environment



have legs



breathe air



eventually die

3. Why is taxonomy helpful to scientists? (1.2)

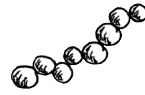
- Because it better shows scientists each animal's particular color.
- By organizing types of living things, scientists can better study their similarities and differences.
- By organizing types of living things, scientists better know what to feed them at the zoo.
- Because organizing living things into groups helps scientists share the work of studying them.

Write the name of the scientist who founded taxonomy here:



Week 1 Activity Sheets

4. Write the names of the five kingdoms scientists use below. (1.3)



P _____ P _____ A _____ M _____ F _____

5. Which characteristic determines the kingdom in which an organism will be placed? Circle your answer. (1.3, p. 4)

where it lives

bone structure

its coloring

cell structure

6. Fill in the chart below with the missing information about the different kingdoms. (1.3, pp. 5–6)

Kingdom	Sample Creature	Interesting Fact
Animalia	_____	All animals have animal cells.
_____	Sycamore tree	All plants have _____ cells.
Fungi	_____	Members of this kingdom were once grouped with plants in the Plant Kingdom.
_____	Euglenas, Amoebas	Some members in this group have plant-like features, and others have _____ features.
Monera	Common creature shapes include rods, spheres and spirals.	Most members are _____, which means they only have one cell.

7. Why aren't frogs and cats part of the same family? (1.4)

Because frogs live on both land and water and cats nurse their young.

Because frogs live in the water and cats live on land.

Week 1 Activity Sheets



8. Match the characteristic descriptions to the animal pair that best define each. Write the letter on the line. (1.4)



Phylum: Mollusca _____



Phylum: Chordata _____

a. has a horny beak / is cold blooded



Class: Aves _____



Class: Reptilia _____

b. has a soft body / has a backbone

c. sharply hooked beak / flightless; live near oceans

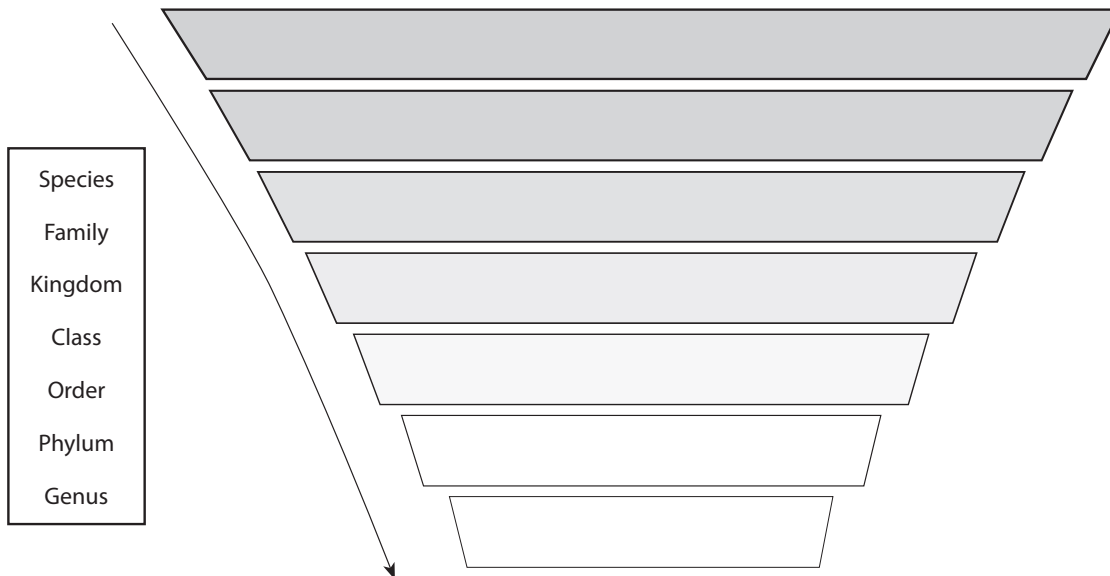


Order: Falconiformes _____



Order: Sphenisciformes _____

9. Use the words in the box to order the classification categories into the funnel below. (1.4–1.5)



10. Are you a Homo sapien? (1.5)

Yes

No



Week 1 Activity Sheets

5-Day: *The Usborne Science Encyclopedia*

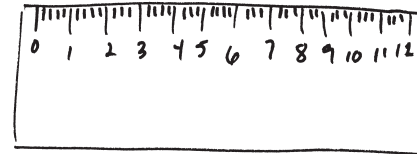
11. Write your age, your father's age and your grandfather's age in Roman and Arabic numerals. (pp. 4-5)

Roman numerals:	I	II	III	IV	V	VI	VII	VIII	IX	X	L
Arabic numerals:	1	2	3	4	5	6	7	8	9	10	50

My age: Arabic: _____ **My father's age:** Arabic: _____ **My grandfather's age:** Arabic: _____
 Roman: _____ Roman: _____ Roman: _____

12. What are some of the advantages of the Arabic system. Check three that are true. (pp. 4-5)

- Arabic is shorter and simpler to write.
- Arabic simplifies things so you don't have to add/subtract symbols together to figure out a number.
- Arabic value for zero.
- Arabic only adds ones and tens and hundreds.



13. a. **Challenge!** What does the prefix "bi" mean? _____ (pp. 4-5)
 How many symbols are used in a binary system? _____
- b. Computers use the symbols _____ and _____. (pp. 4-5)
- c. What base system do clocks use? _____ (pp. 4-5)

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SCIENCE D **WEEK 18** **SCHEDULE**

Date:	Day 1 ⁸⁶	Day 2 ⁸⁷	Day 3 ⁸⁸	Day 4 ⁸⁹	Day 5 ⁹⁰
Listening to Crickets	chap. 5 & Afterword				
Activity Sheet Questions	#1-5				
The Magic School Bus: Inside the Human Body		pp. 1-21 (1st half)	pp. 22-40 (2nd half)		
Activity Sheet Questions		#6-7	#10-12		
Real Science 4 Kids: Biology Level I				4.1	
Activity Sheet Questions				#14	
TOPS #38: Green Thumbs: Radishes	Activities #1-2	Activities #3-4	Activities #3-5	Activities #3, 4, 6	Activities #4, 7
Activity Sheet Questions		#8-9	#13		
Discover & Do Level 3 DVD	Introduction Tracks #1-2	Tracks #3-4	Tracks #3-5	Tracks #3, 4, 6	Tracks #4, 7A
Incredible Creatures That Defy Evolution I (DVD)			Human Body (track XII)		
Optional: Do Together		Tour Guide		Incredible Edible Plants	
Supplies	<p>We provide: NSK—tape; DSK—radish seeds, aluminum foil and foil cutting map, 4"x6" index card, potting soil, Styrofoam tray, baby food jars (plastic cup with lid), use bottom of cup for circle pattern.</p> <p>You provide: copy of master schedule – page D in the <i>TOPS #38: Radishes</i> book, file folder, activity sheet labeled Happy Birthday from the <i>TOPS #38: Radishes</i> book, empty cardboard milk container – ½ gallon, scissors, ruler, D battery or hot pepper sauce bottle or film canister to shape foil around, pen, pencil with eraser, water, paper towels, plastic food wrap, masking tape.</p> <p><i>Keep all science supplies, plants, and experiment materials in a convenient place for the duration of the Radishes book. Items used repeatedly will only be listed once.</i></p>				
Shopping/Planning List	<p>For next week: wide-mouth jar – pint or quart size with lid (you will use this jar again in <i>TOPS #39: Corn and Beans</i>), copy of drawing grid reproducible sheet found in the back of the <i>TOPS #38: Radishes</i> book, jar lid or plastic bowl lid big enough to hold 2 mini-planters.</p>				

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Other Notes

Day 1

Listening to Crickets | Chapter 5 & Afterword

Activity Sheet Questions | #1–5

TOPS #38: Green Thumbs: Radishes | Activities #1–2

Note: *TOPS* books are based on the growth of living things and are very accurately planned out for a 5-day schedule. If you are using the 4-day schedule, you will need to make the necessary adjustments.

Our schedule for these experiments follows the “Master Schedule” found on page D of your book. To give your children a sense of independence and ownership, copy the page and hang it in a handy location for an easy visual reminder of the day’s experiments!

Discover & Do Level 3 DVD | Introduction Tracks #1–2

We produced this fun and educational video so you and your children could watch “Scientist Brittany” perform each of the assigned experiments from the *TOPS* science activity books. We recommend you gather your supplies, watch the DVD to see what to do, and then try each of these simple experiments yourself.

Or, if you prefer, you can do the experiment(s) on your own and then watch the DVD to see how it turned out on screen. You may want to mix and match to find out what works best. We hope this video makes your science experiments more enjoyable and more educational.

If your experiments don’t happen exactly as you see in the video, it’s OK! Watch the Outtakes in the Bonus section of the DVD and see how things didn’t always happen perfectly for us, either.

Please navigate your *Discover & Do DVD* by using the DVD menu on your screen.

Supplies

When supplies are listed as “**We Provide:**” they are materials found in either your course-specific Science D Supplies Kit (**DSK**) or the Non-Consumable Supplies Kit (**NSK**). When supplies are listed as “**You Provide:**” they are materials you can generally find around your home.

Day 2

The Magic School Bus: Inside the Human Body | pp. 1–21 (first half)

A good passage to begin a study of the human body is Psalm 139:13–14: “For you [God] created my inmost being; you knit me together in my mother’s womb. I praise you because I am fearfully and wonderfully made; your works are wonderful, I know that full well” (NIV). Keep this in mind as you and your children learn more about the human body. [p. 4]

In Darwin’s day, cells were thought to be relatively simple structures. But as science and microscope technology have advanced it has become apparent that even the so-called simple cell is a highly complex structure, suggesting design rather than the product of chance. You and your children will learn more about cells this year in chapter 2 of *Real Science 4 Kids: Biology Level I*. [pp. 6–7]

Hmm, now this story seems familiar. That’s because other stories have explored the concept of becoming miniaturized and entering a human body. A much earlier account of such an excursion occurred in the 1966 film *Fantastic Voyage*, novelized on the basis of the screenplay by science fiction author Isaac Asimov. [pp. 10–11]

Activity Sheet Questions | #6–7

TOPS #38: Green Thumbs: Radishes | Activities #3–4

Activity Sheet Questions | #8–9

Discover & Do Level 3 DVD | Tracks #3–4

Optional: Do Together | Tour Guide

Today, encourage your children to play Tour Guide. Based upon what they’ve learned from their reading assignments in *The Magic School Bus Inside the Human Body*, challenge them to tell you what’s going on inside their bodies as they eat a snack. Make sure it’s a healthy snack, too!

What is going on in their mouths as they chew? How do they taste the food? Why is it necessary to chew the food?

What happens when they swallow? Where does the food go next? How do their bodies extract the nutrients from the food? What happens to the parts of the food their bodies can’t use?

If they want, let them draw a picture that summarizes what happens inside their bodies when they eat a snack. Hang it on the refrigerator as a convenient reminder of what happens each time they eat something.

Week 18 Activity Sheets



Listening to Crickets

- When a plane sprayed DDT over Olga Huckins bird sanctuary, the chemical killed (Check all that apply). (p. 49)

<input checked="" type="checkbox"/>	mosquitoes	<input checked="" type="checkbox"/>	other insects
<input checked="" type="checkbox"/>	song birds	<input type="checkbox"/>	horses
- Draw a line to match each term to the correct definition. (pp. 41–51)

ecology	chemicals used to control insects and other pests
DDT	the study of the way living things relate to each other and to the environment
pesticides	a cricket with a "sweet, haunting voice"
fairy bellinger	a particularly toxic poison that killed both wanted and unwanted creatures
- Why was DDT such a concern? (p. 51)

(Because besides killing unwanted pests, DDT also killed small animals that were not necessarily causing a problem. Rachel was worried that the poison also affected the food people sprayed it on, and could be harmful to humans.)
- Name one way Silent Spring changed our society. (pp. 60–61)

(Possible Answers: DDT and other related chemicals are almost completely banned in the United States, Canada, and other developed countries, natural enemies are being used instead, the Environmental Protection Agency (EPA) was formed to enforce environmental controls, The Clean Air and Clean Water Acts were passed.)
- Briefly explain what action you think the author hoped we would take after reading the following sentence: (p. 61)

"We are also a part of the living, breathing, crawling, flying, walking, swimming, rooted thing called nature." (since we are part of our environment, we should do what we can to protect it and take care of it, instead of destroying it senselessly)

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Week 18 Activity Sheets



The Magic School Bus: Inside the Human Body

- Why does your stomach growl? (p. 12)

(When there isn't much food in your stomach, the gases in it make a gurgling sound as it churns.)
 - Match the descriptions with the correct words. (pp. 1–19)

blood vessels	tiny "fingers" lining the walls of the small intestine that allow food molecules to pass into the blood
digestion	tubes that carry blood through the body
esophagus	help stop bleeding when skin is cut
plasma	muscle that squeezes food to move it from your mouth to your stomach
platelets	comes from a word that means "to divide"; food divided into smaller and smaller parts
villi	clear fluid that makes up a little more than half of your blood; holds red and white blood cells
- TOPS #38: Green Thumbs: Radishes**
- Color the pictures in the following ways. (Sprout Drawings, #3)

Color the seed coat green.
(covers and protects the plant embryo from insects and water loss)

Color the root hairs yellow.
(tiny tubes that absorb water)

Color the tap root red.
(first root to grow down, absorbs water)

Color the radicle blue.
(becomes roots and lower stem)

Color the cotyledons pink.
(stores starch and protein to nourish the developing sprout)

Color the hypocotyls purple.
(forms lower stem, pulls cotyledons above ground as it lengthens)
 - Demonstrate/explain out loud to Mom or Dad what each colored part does for a plant. (Review)

(see descriptions provided above)

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Listening to Crickets

1. When a plane sprayed DDT over Olga Huckins bird sanctuary, the chemical killed (Check all that apply.) (p. 49)

mosquitoes

other insects

song birds

horses



2. Draw a line to match each term to the correct definition. (pp. 41–51)

ecology

•

chemicals used to control insects and other pests

DDT

•

the study of the way living things relate to each other and to the environment

pesticides

•

a cricket with a “sweet, haunting voice”

fairy bellringer

•

a particularly toxic poison that killed both wanted and unwanted creatures

3. Why was DDT such a concern? (p. 51)



4. Name one way *Silent Spring* changed our society. (pp. 60–61)

5. Briefly explain what action you think the author hoped we would take after reading the following sentence: (p. 61)

“We are also a part of the living, breathing, crawling, flying, walking, swimming, rooted thing called nature.”



SCIENCE D **WEEK 36** **SCHEDULE**

Date:	Day 1 <small>176</small>	Day 2 <small>177</small>	Day 3 <small>178</small>	Day 4 <small>179</small>	Day 5 <small>180</small>
<i>The Usborne Science Encyclopedia</i>	pp. 96–97	pp. 98–99	pp. 102–103	pp. 104–105	
Activity Sheet Questions	#1–13	#14–16	#17	#18–19	
5-Day: <i>The Usborne Science Encyclopedia</i>					pp. 108–109
5-Day: Activity Sheet Questions					#20–22
Optional: Do Together	Compasses and Magnets			The Electromagnetic Spectrum Song	

Other Notes

You're All Done!

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Day 1

The Usborne Science Encyclopedia | pp. 96–97

Activity Sheet Questions | #1–13

Optional: Do Together | Compasses and Magnets

Today, let your children experiment with magnets and a compass. Show them how the needle on a compass points toward magnetic north. Reinforce what they've learned this week about magnetic fields.

Challenge your children to experiment with the compass to see what other magnetic fields might be in the area. For example, what happens to the compass if they hold it near a television? Can they find anything else that causes the same reaction?

Now let them test out the effect of magnets on the compass. Using a small magnet of any kind, encourage your children to try to use the magnet to manipulate the compass needle. Is the magnet's field more powerful than the magnetic field of the earth? Or is it just more powerful because it's so close? Have your children move the magnet toward and away from the compass. Where is its effect the most powerful?

Day 2

The Usborne Science Encyclopedia | pp. 98–99

In a paper published in 1929, Japanese geophysicist Motonori Matuyama (1884–1958) revealed that the earth's magnetic field can reverse polarity. Because of Matuyama's research into this matter, scientists think the earth's poles have reversed a number of times and will probably reverse again at some point. How does this happen? Scientists aren't really sure. When will it happen? Again, scientists aren't sure. You'll probably know it has happened when all the magnets on your refrigerator suddenly fall off. By the way, scientists also know that the Sun reverses its poles, too. [p. 98]

Activity Sheet Questions | #14–16

Day 3

The Usborne Science Encyclopedia | pp. 102–103


Activity Sheet Questions | #17

Day 4

The Usborne Science Encyclopedia | pp. 104–105

Activity Sheet Questions | #18–19

Optional: Do Together | The Electromagnetic Spectrum Song

For an offbeat way to help reinforce what your children learned this week about the electromagnetic spectrum, take them on a trip to the Internet to view the video for The Electromagnetic Spectrum Song. Go to our IG links page for a link to the video of this song .

Although it will probably not jangle around your head for days like a classic Beatles song (at least we sincerely hope it will not), it will provide a fun way to review the electromagnetic spectrum with some neat graphics. If you can get your children to memorize the lyrics or sing along, give them huge bonus points!

Day 5

5-Day: The Usborne Science Encyclopedia | pp. 108–109

The computer shown in the illustration is out of date, but the underlying computer principles are accurate. [p. 108]

5-Day: Activity Sheet Questions | #20–22 ■

Week 36 Activity Sheets

The Usborne Science Encyclopedia

- Where does main electricity come from? (p. 96)
(power stations)
- Current that flows around a circuit in one direction is called *(direct current)*. (p. 96)
Current that changes direction many times a second is called *(alternating current)*. (p. 96)

3. Write the type of electricity used next to each picture: direct current (DC) or alternating current (AC). (p. 96)



(direct current)

battery electricity



(alternating current)

mains electricity

- What is a circuit breaker and why is it important? (p. 96)
(It is a device that cuts the electricity if the current gets too big. It protects wiring from damage.)

5. How does static electricity differ from current electricity? (p. 97)

Current

(current electricity moves from one place to another)

(static electricity stays in one place)

Static



Week 36 Activity Sheets

Use this word bank to answer the following questions. (pp. 94-96)

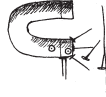
circuit conductor volts ampere ohm fuse insulator resistance

- A material through which electricity flows easily. *(conductor)*
- A material through which electricity has difficulty flowing. *(insulator)*
- The unit of measure of electrical resistance. *(ohm)*
- The unit of measure for volume of electricity that flows through a wire each second. *(ampere)*
- (resistance)* is how difficult it is for electricity to flow.
- Scientists use the term *(volts)* to refer to the unit of measure of electromotive force.
- A continuous path through which electricity can flow is a *(circuit)*.
- The most common type of circuit breaker made of a special wire that melts if too much current flows through is a *(fuse)*.

14. Name three ways magnets can be used. (p. 99)



1) *(in compasses)*



2) *(to pick up nails)*



3) *(to make trains "float" above the tracks so they can go really fast)*

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1. Where does main electricity come from? (p. 96)



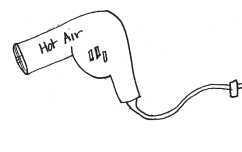
2. Current that flows around a circuit in one direction is called _____ . (p. 96)

Current that changes direction many times a second is called _____ . (p. 96)

3. Write the type of electricity used next to each picture: direct current (DC) or alternating current (AC). (p. 96)



battery electricity



mains electricity

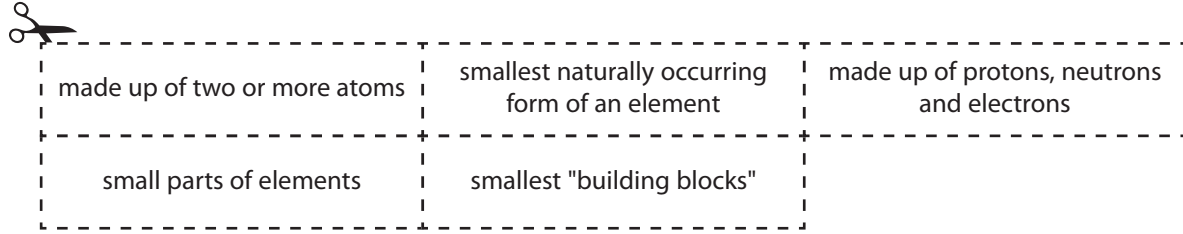
4. What is a circuit breaker and why is it important? (p. 96)

5. How does static electricity differ from current electricity? (p. 97)

Current	Static
_____	_____
_____	_____
_____	_____
_____	_____

Appendix 4: Science D—Cut-Out Sheets

Cut-Out #1



Cut-Out #2

