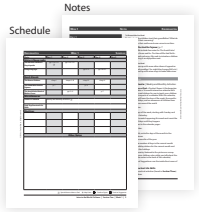
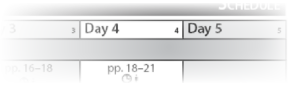
Instructor's Guide Quick Start

The BookShark™ Instructor's Guide (IG) is designed to make your educational experience as easy as possible. We have carefully organized the materials to help you and your children get the most out of the subjects covered. If you need help reading your schedule, see "How to Use the Schedule" in **Section Four**.

This IG includes a 36-week schedule, notes, assignments, readings, and other educational activities. For specific organizational tips, topics and skills addressed and other suggestions for the parent/teacher see **Section Three**. Here are some helpful features that you can expect from your IG.



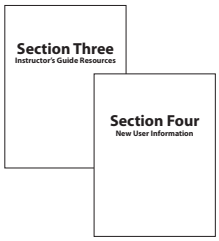
Easy to use
Everything you need is located right after the schedule each week. If a note appears about a concept in a book, it's easy to find it right after the schedule based on the day the relevant reading is scheduled.



4-Day Schedule
Designed to save one day a week for music lessons, sports, field trips, co-ops, or other extra-curricular activities.

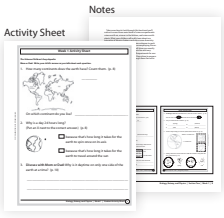
Notes
When relevant, you'll find notes about specific books to help you know why we've selected a particular resource and what we hope your children will learn from reading it. Keep an eye on these notes to also provide you with insights on more difficult concepts or content (look for "Note to Mom or Dad").

Note: What are the two kinds of poisonous lizards? The book only lists one – the Gila monster (*Heloderma suspectum*) native to the southwestern United States. The other kind is known as a beaded lizard (*Heloderma horridum*) and is found in Mexico and Guatemala. [p. 35]



Instructor's Guide Resources and **New User Information**
Don't forget to familiarize yourself with some of the great helps in **Section Three** and **Section Four** so you'll know what's there and can turn to it when needed.

Activity Sheets and **Answer Keys**
Activity Sheets follow each week's notes and are customized for each lesson to emphasize important points in fun ways. They are designed with different skills and interests in mind. You may want to file them in a separate binder for your student's use. Corresponding Answer Keys have been included within your weekly Notes.



Date:	Day 1 1	Day 2 2	Day 3 3	Day 4 4	Day 5 5
The Usborne Complete Book of the Human Body	pp. 6–9	pp. 10–11	pp. 12–13		
Blood and Guts				pp. 71–74	
Activity Sheet Questions	#1–3	#4–6	#7–9	#10–12	
Optional: Do Together	Listen to Your Children			Testing Temperature	
Optional: ***Lyrical Life Science, Volume 3—The Human Body***	chap. 1				

Other Notes

Day 1

The Usborne Complete Book of the Human Body | pp. 6–9

Activity Sheet Questions | #1–3

Activity Sheets

Activity Sheets are included after the weekly notes and are assigned on each schedule page. Each Activity Sheet has a corresponding Answer Key page following these schedule pages. Feel free to read and work with your children through the lessons on the Activity Sheets, or give them the reins to work solo, once you feel they are able to do so.

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.

Any question marked **Challenge:** will be just that—a challenge for your children. While we believe the material covered in the challenge questions is worthwhile for your children to know, it may not be specifically explained in their reading assignment. As always, if you think any question is too difficult for your children, please feel free to skip.

Feel free to let your children do those activities that they enjoy 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.

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 #FSB1).

Optional: Do Together | Listen to Your Children

Each week throughout Science 5, we will provide ideas for fun activities to do with your children. In general, we will try to make the activities actually "active": performing additional research on a particular topic, watching a video, playing a game, getting outside, or some other type of "hands-on" activity that seeks to apply what your children have been learning in a meaningful way.

N Special Note to Mom or Dad

Take our ideas for what they are—mere suggestions—and don't feel enslaved to them. If your children don't want to do a particular activity or have a different, better idea, by all means ditch ours and go with theirs!

Put this attitude into practice today by actively listening to your children. As they embark on their study of the amazing human body, what interests them? What do they want to learn more about? What do they *not* have an interest in? Do they have any ideas for fun activities they could do that have to do with learning more about the human body?

Make a list of their thoughts and ideas. Then let them pick one to do today. In this way, you will let them know that their opinion is important. Children who feel they have an important, active role in determining what they learn about will be more engaged in their studies. Have fun and treasure these times together.

Optional: *Lyrical Life Science, Volume 3—The Human Body* | Chapter 1

If you have chosen to add this optional book to your curriculum, here is a suggested way to fit it into your daily schedule.

On Day 1, listen to the song, reading the lyrics as you listen.

You'll be doing either two or three days of reading the text and listening to the song once each day.

On the last day of the week assign as many of the questions in the *Lyrical Life Science* workbook as you feel would be comfortable and most beneficial for your children.

Day 2

The Usborne Complete Book of the Human Body | pp. 10–11

Activity Sheet Questions | #4–6

Day 3

The Usborne Complete Book of the Human Body | pp. 12–13

Activity Sheet Questions | #7–9

Day 4

Blood and Guts | pp. 71–74

Cells, even so-called simple cells, are a lot more complicated than most people think they are. They are like tiny factories with many parts doing exactly what they need to do to keep things going. [p. 71]

Activity Sheet Questions | #10–12

Optional: Do Together | Testing Temperature

As noted in *Blood and Guts*, the "normal" human temperature is 98.6 degrees Fahrenheit. Talk with your children about their "normal" temperature. Do they normally measure 98.6 degrees Fahrenheit? Or a bit above or below that level?

Test to see what effect a cold shower or vigorous exercise might have on their temperature. To start, take their temperature at rest. Then have them take a cold shower or bath. Take their temperature again. Did it decrease? When they're dressed, have them engage in some vigorous exercise, such as running a mile or doing 100 sit-ups, push-ups, or jumping jacks. Take their temperature one last time. Did it increase?

Be sure to discuss with your children how their body temperature is a good indicator of what is going on inside their cells. Reinforce how important it is that they tell you if they ever feel "too hot" or like they're running a fever. ■

Week 1 Activity Sheets

The Usborne Complete Book of the Human Body

1. Use the words in the box to complete the following. (p. 7)

genes	cells	body parts

Inside our _____(body parts)_____ are millions of tiny _____(cells)_____ that have _____(genes)_____ inside of them that tell the cells the things they need to do to make our bodies work and keep us alive.

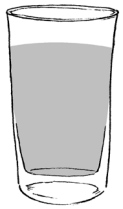
2. Write each term in one of the boxes below to organize each body part into the appropriate category. (p. 8)

brain	lungs	bone	stomach juices	fat	sweat	muscle	blood	tears

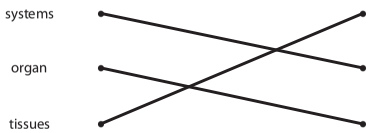
Body Fluids	Organs	Body Tissues
(stomach juices)	*(brain)*	*(fat)*
(blood)	*(lungs)*	*(bone)*
(sweat)		*(muscle)*
(tears)		

3. Shade the glass to show how much of your body is made up of water. (p. 8)

(70%)



4. Draw a line to match the terms to the correct definitions. (pp. 8–10)



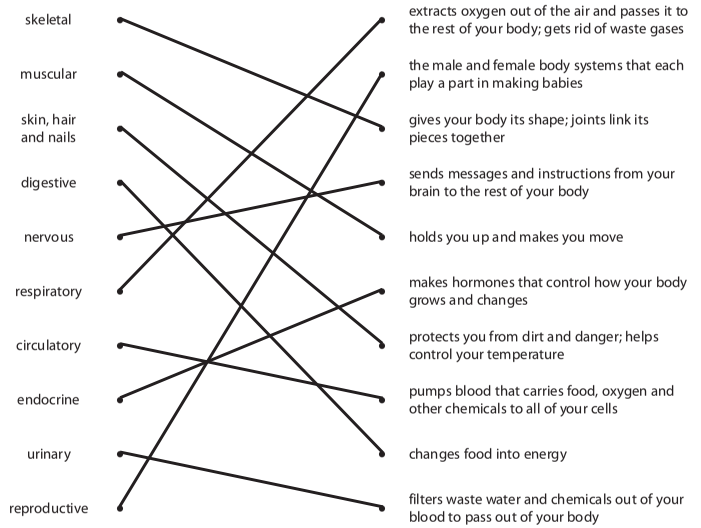
A group of cells of the same type; includes fat, bone and muscle

A group of organs or body parts whose jobs are closely related.

Different types of tissues grouped together to perform a particular task for the rest of the body.

Week 1 Activity Sheets

5. Match each body system to the main task(s) each performs. (pp. 10–11)



6. Think of one body part that belongs to more than one body system and explain how it serves both systems. (p. 10)

(Possible: throat is part of the digestive system while you eat, and part of the respiratory system while you breathe; at the most basic level, your leg is part of both the skeletal system—gives your leg its structure, and the muscular system—helps you walk)

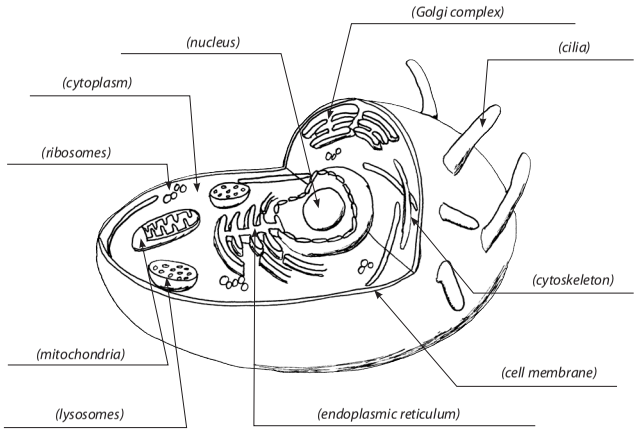
7. How do cells make the different proteins they need to do various jobs around your body? (p. 12)

(Cells combine amino acids in different ways to create the proteins they need)

Week 1 Activity Sheets

8. Label the following on the diagram. Use the book pictures as a guide. (p. 13)

cell membrane	mitochondria	ribosomes	nucleus	cytoplasm
lysosomes	Golgi complex	cytoskeleton	cilia	endoplasmic reticulum



9. Write the letter on the line to match each cell part to its role or function. (p. 13)

(c) membrane	a. controls and directs all cell activities; contains instructions for making new cells
(d) mitochondria	b. transports proteins made by the ribosomes to other parts of the cell
(e) ribosome	c. holds the cell together & controls the way substances such as food and water pass into and out of the cell
(a) nucleus	d. food and oxygen react together here to produce energy for life
(f) cytoplasm	e. proteins are created here
(b) endoplasmic reticulum	f. a jelly-like substance that contains strands of protein and provides the backbone of the cell
(h) Golgi complex	g. produce chemicals which destroy harmful foreign substances
(g) lysosome	h. a storage area that keeps proteins until needed

Week 1 Activity Sheets

Blood and Guts

10. How are cells and the various members of a community similar? (p. 71)
(cells specialize in one task or another and work together to perform all of the jobs necessary to stay alive)

11. Why are our bodies warm? (p. 72) *(because our cells are constantly taking in chemical fuel and burning it to make energy, which produces heat)*

12. Why do you feel sweaty when your fever breaks? (p. 74)
(because your body is done healing and fighting off the infections, so sweating is its normal method for cooling itself off)

Week 1 Activity Sheets

The Usborne Complete Book of the Human Body

1. Use the words in the box to complete the following. (p. 7)

genes	cells	body parts

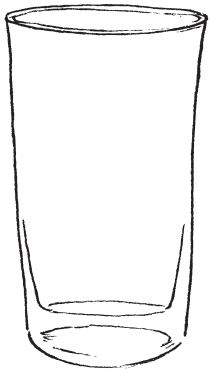
Inside our _____ are millions of tiny _____ that have _____ inside of them that tell the cells the things they need to do to make our bodies work and keep us alive.

2. Write each term in one of the boxes below to organize each body part into the appropriate category. (p. 8)

brain	lungs	bone	stomach juices	fat	sweat	muscle	blood	tears

Body Fluids	Organs	Body Tissues

3. Shade the glass to show how much of your body is made up of water. (p. 8)



4. Draw a line to match the terms to the correct definitions. (pp. 8–10)

systems	• A group of cells of the same type; includes fat, bone and muscle
organ	• A group of organs or body parts whose jobs are closely related.
tissues	• Different types of tissues grouped together to perform a particular task for the rest of the body.

5. Match each body system to the main task(s) each performs. (pp. 10–11)

skeletal	•	•	extracts oxygen out of the air and passes it to the rest of your body; gets rid of waste gases
muscular	•	•	the male and female body systems that each play a part in making babies
skin, hair and nails	•	•	gives your body its shape; joints link its pieces together
digestive	•	•	sends messages and instructions from your brain to the rest of your body
nervous	•	•	holds you up and makes you move
respiratory	•	•	makes hormones that control how your body grows and changes
circulatory	•	•	protects you from dirt and danger; helps control your temperature
endocrine	•	•	pumps blood that carries food, oxygen and other chemicals to all of your cells
urinary	•	•	changes food into energy
reproductive	•	•	filters waste water and chemicals out of your blood to pass out of your body

6. Think of one body part that belongs to more than one body system and explain how it serves both systems. (p. 10)

_____

_____

_____

7. How do cells make the different proteins they need to do various jobs around your body? (p. 12)

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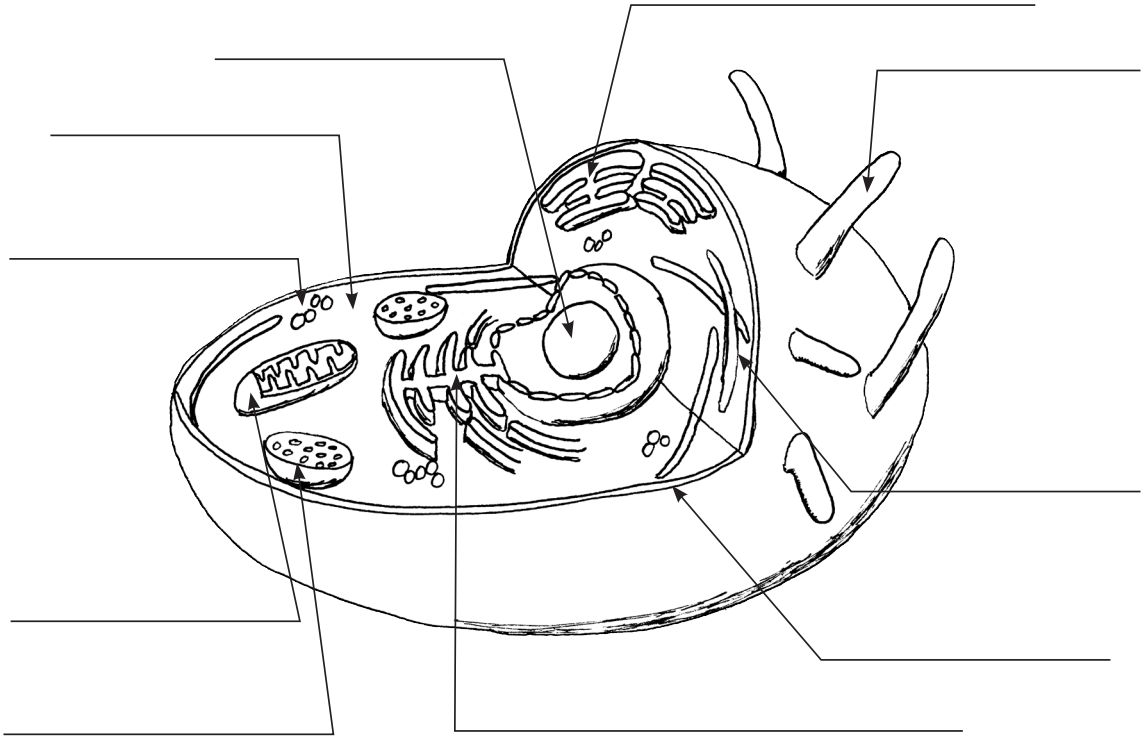
8. Label the following on the diagram. Use the book pictures as a guide. (p. 13)

cell membrane	mitochondria	ribosomes	nucleus	cytoplasm
lysosomes	Golgi complex	cytoskeleton	cilia	endoplasmic reticulum



9. Write the letter on the line to match each cell part to its role or function. (p. 13)

_____ membrane

_____ mitochondria

_____ ribosome

_____ nucleus

_____ cytoplasm

_____ endoplasmic reticulum

_____ Golgi complex

_____ lysosome

a. controls and directs all cell activities; contains instructions for making new cells

b. transports proteins made by the ribosomes to other parts of the cell

c. holds the cell together & controls the way substances such as food and water pass into and out of the cell

d. food and oxygen react together here to produce energy for life

e. proteins are created here

f. a jelly-like substance that contains strands of protein and provides the backbone of the cell

g. produce chemicals which destroy harmful foreign substances

h. a storage area that keeps proteins until needed

Week 1 Activity Sheets

Blood and Guts

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_____

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_____

12. Why do you feel sweaty when your fever breaks? (p. 74)

_____

_____

Date:	Day 1 6	Day 2 7	Day 3 8	Day 4 9	Day 5 10
The Usborne Complete Book of the Human Body	pp. 65–67	pp. 68–69			
Blood and Guts			pp. 75–78	pp. 79–82	
Activity Sheet Questions	#1–3	#4–6	#7–8	#9–14	
Optional: Do Together	Food Journal Prep N	Food Journal	Amylase in Action		
Optional: *Lyrical Life Science, Volume 3—The Human Body*	chap. 7				

Other Notes

Day 1

The Usborne Complete Book of the Human Body | pp. 65–67

Activity Sheet Questions | #1–3

Optional: Do Together | Food Journal Prep

Note to Mom or Dad: Tomorrow you and your children will keep a food journal. Read through the activity and make sure you will be ready to begin.

Optional: *Lyrical Life Science, Volume 3—The Human Body* | Chapter 7 (all week)

Day 2

The Usborne Complete Book of the Human Body | pp. 68–69

Activity Sheet Questions | #4–6

Optional: Do Together | Food Journal

Have your children ever given much thought to exactly how much of what types of food and drink they use to power their amazing human bodies? Today, encourage them to keep track of everything they ingest. Ask them to keep a detailed food journal by recording everything that they eat or drink today, including details of the exact types and amounts of the foods and drinks they choose.

In addition to the nitty-gritty details of the foods and drinks they partake of, ask them also to record how they feel throughout the day. Are they tired? Energetic? Sleepy? Alert? Does how they feel change throughout the day?

When the day is done, ask them to look back over their journal entries for the day. Does anything surprise them? Can they believe they ate that much of X? Did they realize they only drank Y glasses of water? Do they see any correlations between how they felt at certain points in the day and what they had been eating or drinking?

Use this time to reinforce what your children have learned this week about food and their digestive systems. Do you see anything in their daily eating/drinking routine

N Special Note to Mom or Dad

that needs some attention? Do they need to eat less junk food? Drink more water? Use this exercise as a way to discuss changes you'd like to see. You can even continue their journaling from time to time to look for improvements.

Day 3

Blood and Guts | pp. 75–78

Activity Sheet Questions | #7–8

Optional: Do Together | Amylase in Action

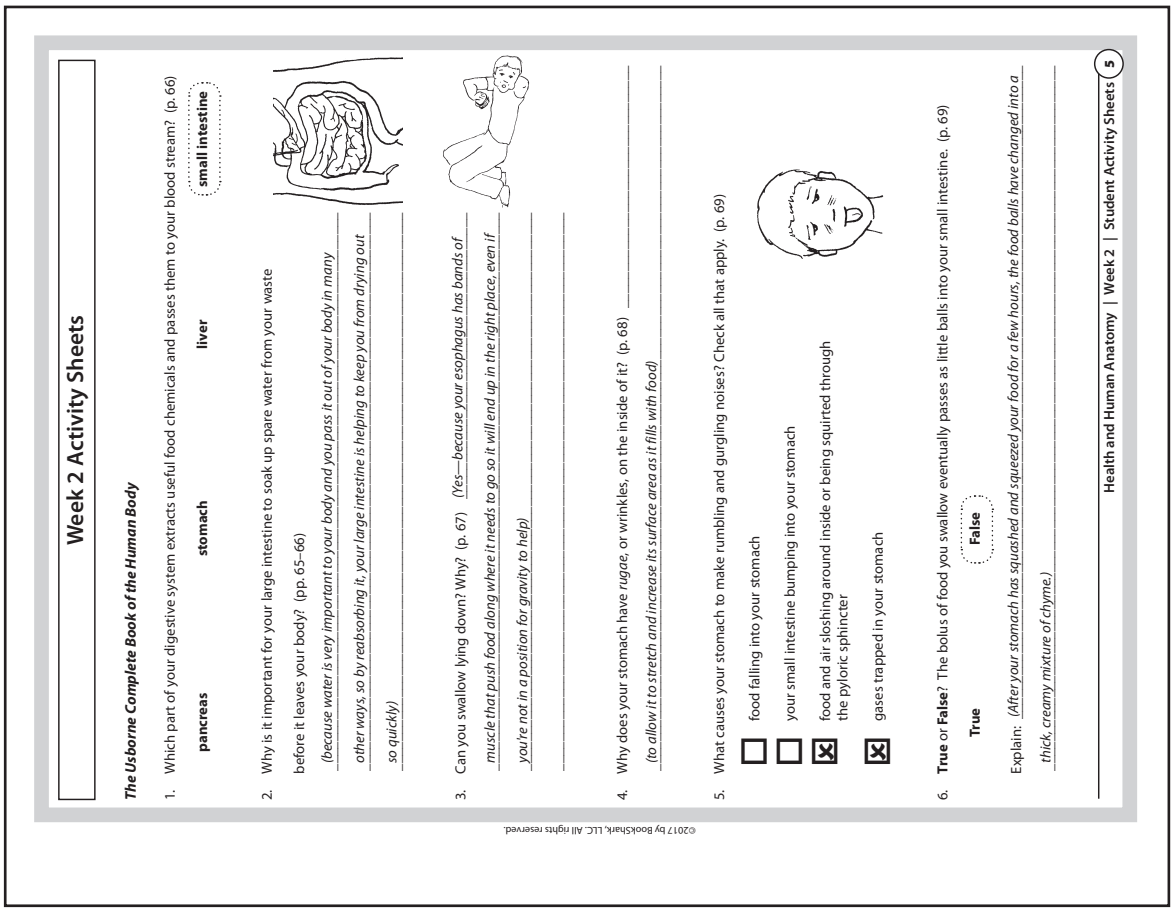
Grab some soda crackers and put your children to work testing the action of Amylase, the starch-into-sugar enzyme present in our mouths. As described in *Blood and Guts*, have your children chew a soda cracker completely, but ask them to hold it in their mouths for five minutes rather than swallowing immediately.

When the five minutes have elapsed, ask your children what they feel in their mouths. What do they taste? Do the soda cracker remains have the same starchy taste as when they began chewing? Why not? What can they tell about the effect the Amylase has had on the starchy soda cracker?

Day 4

Blood and Guts | pp. 79–82

Activity Sheet Questions | #9–14 ■



Week 2 Activity Sheets

The Usborne Complete Book of the Human Body

1. Which part of your digestive system extracts useful food chemicals and passes them to your blood stream? (p. 66)
   pancreas stomach liver **small intestine**
2. Why is it important for your large intestine to soak up spare water from your waste before it leaves your body? (pp. 65–66)
   (because water is very important to your body and you pass it out of your body in many other ways, so by reabsorbing it, your large intestine is helping to keep you from drying out so quickly)
3. Can you swallow lying down? Why? (p. 67) *(Yes—because your esophagus has bands of muscle that push food along where it needs to go so it will end up in the right place, even if you're not in a position for gravity to help)*
4. Why does your stomach have *rugae*, or wrinkles, on the inside of it? (p. 68)
   (to allow it to stretch and increase its surface area as it fills with food)
5. What causes your stomach to make rumbling and gurgling noises? Check all that apply. (p. 69)
   - ☐ food falling into your stomach
   - ☐ your small intestine bumping into your stomach
   - ☒ food and air sloshing around inside or being squirted through the pyloric sphincter
   - ☒ gases trapped in your stomach
6. **True** or **False**? The bolus of food you swallow eventually passes as little balls into your small intestine. (p. 69)
   True **False**
   Explain: *(After your stomach has squashed and squeezed your food for a few hours, the food balls have changed into a thick, creamy mixture of chyme.)*

Health and Human Anatomy | Week 2 | Student Activity Sheets 5

Week 2 Activity Sheets

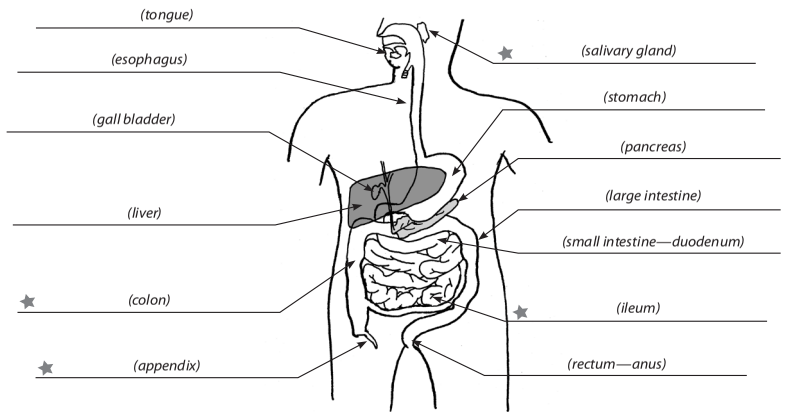
Blood and Guts

7. Draw a line to match the terms to the correct definitions. (p. 76)

peristalsis	action of the intestine walls hugging and pushing food along like the way you squeeze a tube of toothpaste
enzyme	tiny finger-like things that stick out from the wall of the intestine to absorb valuable chemicals from the food that passes by
villi	a chemical in saliva that breaks down starches in food

8. **Part A:** Label only the items listed in the box on the picture of the digestive system below. They should be familiar to you. Answer lines with stars ★ should be left blank for now. (p. 77)

esophagus	liver	small intestine	pancreas	stomach
gall bladder	rectum (anus)	large intestine	tongue	



Week 2 Activity Sheets

Part B—Challenge! Research the functions of the remaining items below. Then, label them on the diagram.

★ colon: *(part of the large intestine that removes water and mineral salts from partially-digested food)*

★ salivary gland: *(produces saliva, which moistens and softens food in the mouth, and helps break down starchy foods; this is the first step in digestion)*

★ appendix: *(located in the first part of the large intestine; has no known function)*

★ ileum: *(lower part of the small intestine; absorbs nutrients from food that has been digested by the stomach and duodenum)*

Use the words in the box to complete the following. (pp. 79–81)

fats	proteins	feces	carbohydrates	sphincter

9. _(Carbohydrates)_ are "fuel foods" because they provide energy for your body and are found in foods such as bread, pasta and cereal.

10. _(Fats)_ are used for energy production and found in foods such as butter or cream.

11. _(Proteins)_ are used in body repair and growth and found in foods such as steak and eggs.

12. _(Feces)_ is the proper name for the body's solid waste.

13. The kind of muscle that surrounds your lips and helps you "pucker up" is called a (the) _(sphincter)_.

14. Is bacteria good or bad? Explain. (p. 81)

(It's both—some bacteria can make you sick, but the bacteria that lives inside of you helps finish off the remains of food in your intestines, secrete helpful vitamins and digest small amounts of cellulose to create calories for daily nutrition)

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Week 2 Activity Sheets

The Usborne Complete Book of the Human Body

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   pancreas **stomach** **liver** **small intestine**

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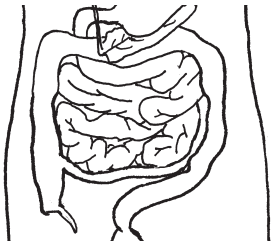
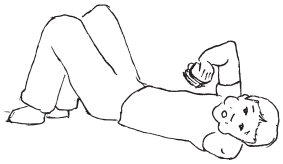


3. Can you swallow lying down? Why? (p. 67) _____



4. Why does your stomach have *rugae*, or wrinkles, on the inside of it? (p. 68) _____

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   - ☐ food falling into your stomach
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   - ☐ gases trapped in your stomach

6. **True** or **False**? The bolus of food you swallow eventually passes as little balls into your small intestine. (p. 69)

   True **False**

   Explain: _____

Week 2 Activity Sheets

Blood and Guts

7. Draw a line to match the terms to the correct definitions. (p. 76)

peristalsis	• action of the intestine walls hugging and pushing food along like the way you squeeze a tube of toothpaste
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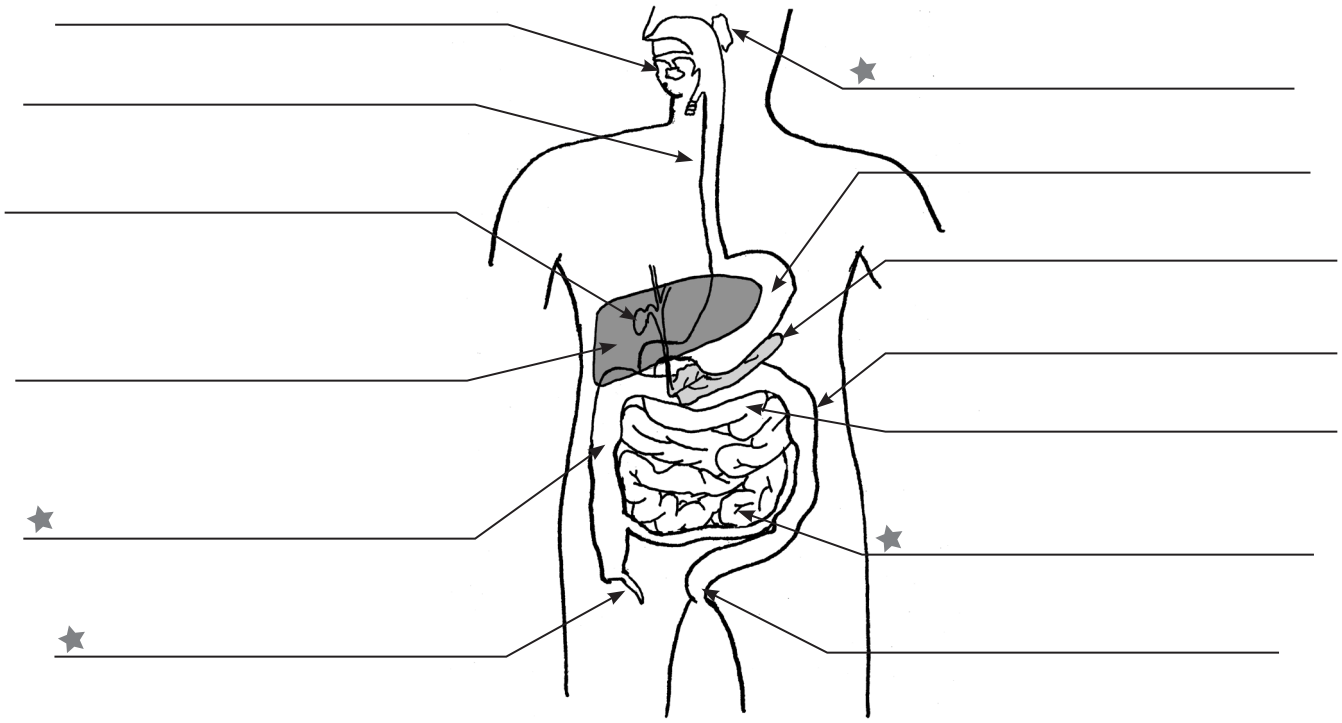

Week 2 Activity Sheets

Part B—Challenge! Research the functions of the remaining items below. Then, label them on the diagram.

★ colon: _____

_____

★ salivary gland: _____

_____

★ appendix: _____

_____

★ ileum: _____

_____

Use the words in the box to complete the following. (pp. 79–81)

fats	proteins	feces	carbohydrates	sphincter

9. _____ are "fuel foods" because they provide energy for your body and are found in foods such as bread, pasta and cereal.

10. _____ are used for energy production and found in foods such as butter or cream.

11. _____ are used in body repair and growth and found in foods such as steak and eggs.

12. _____ is the proper name for the body's solid waste.

13. The kind of muscle that surrounds your lips and helps you "pucker up" is called a (the) _____ .

14. Is bacteria good or bad? Explain. (p. 81)

_____

_____

_____

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Date:	Day 1 11	Day 2 12	Day 3 13	Day 4 14	Day 5 15
The Usborne Complete Book of the Human Body	pp. 70–71	pp. 72–73			
Blood and Guts			pp. 83–86		
Food and Nutrition for Every Kid				chap. 11	
Activity Sheet Questions	#1–4	#5–8	#9–10	#11–13	
Optional: Do Together		Fighting Fat		Peristalsis	
Optional: ***Lyrical Life Science, Volume 3—The Human Body***	chap. 8				

Other Notes

Day 1

The Usborne Complete Book of the Human Body | pp. 70–71

Activity Sheet Questions | #1–4

Optional: ***Lyrical Life Science, Volume 3—The Human Body*** | Chapter 8 (all week)

Day 2

The Usborne Complete Book of the Human Body | pp. 72–73

Activity Sheet Questions | #5–8

Optional: Do Together | Fighting Fat

Reinforce what your children have learned thus far about how your body processes food and stores excess food as fat. Use this time to discuss how important it is to monitor our food intake closely so that we do not end up with an unhealthy amount of excess food that will be stored as fat. Discuss with your children what other steps can be taken to reduce the amount of unhealthy fat in our bodies.

In addition to monitoring our food intake, we can regulate the amount of energy our bodies use by engaging in regular exercise. Ask your children to pick an exercise they enjoy and do that exercise with them today. If you can, incorporate a time of daily exercise into your children's normal routine.

N Special Note to Mom or Dad

Day 3

Blood and Guts | pp. 83–86

Activity Sheet Questions | #9–10

Day 4

Food and Nutrition for Every Kid | Chapter 11

This book provides 25 hands-on activities to help your children learn more about food. Feel free to do your experiment any time during the week, depending on what works best for your schedule.

Some weeks the workload is heavier than others, so if you are falling behind, feel free to skip an activity. The goal of these activities is to help your children really learn about nutrition through active learning.

Most of the activities require a little preparation, so make sure you review the procedures before the date you plan to do it. We believe this book is a valuable resource, but we don't want these extra activities to wear you out.

Be assured that this is a book you can choose to use when you want to and put aside when you get too busy.

Also note that pages 199 through 220 consists of a helpful glossary in case you and your children need to look up some terms.

Activity Sheet Questions | #11–13

Optional: Do Together | Peristalsis

Peristalsis describes a series of muscular contractions that moves food through your digestive system. To help your children understand peristalsis better, do a simple experiment with them today.

Grab a short section of tubing or garden hose, along with a marble or other round object only slightly smaller than the tubing/hose. Ask your children to push the marble into the hose and then move it to the other end.

Note: Make sure the marble will not simply roll easily through the tube.

How did your children move the marble through the hose? If they imitated peristalsis, then they probably pushed the marble through slowly, one squeeze of the tube at a time. Explain to them that this is how their body's digestive system, including the esophagus, intestines, etc., moves food through the various stages of the digestive process … one small muscle contraction at a time. ■

Week 3 Activity Sheets

The Usborne Complete Book of the Human Body

1. How is your liver like a big processing plant for food chemicals? List at least three of the jobs your liver performs. (p. 70)
   a) *(sorts food chemicals collected by the small intestine and sends them to different parts of the body)*
   b) *(filters out garbage)*
   c) *(makes bile to help your intestines digest fat)*
   d) *(converts food chemicals into body substances)*

2. Why do you need intestines? What do they do for your body? (p. 70) *(You need intestines to break down food into tiny molecules of chemicals; so they can be passed into your bloodstream and used by your cells)*

3. Why does your body make fat? (p. 71) *(to store extra food energy, because your cells only use as much food energy as they need)*

4. What functions does fat serve in your body? (p. 71) *(fat keeps you warm and provides a cushion around your bones)*

5. Draw a line to match each term to the correct definition. (pp. 71–72)

protein	a tough, leftover waste in your large intestine that helps to sweep the digestive system clean.
carbohydrates	simple sugars and starches used for energy
fats	made from amino acids; used to repair the body and build cells
fiber	stored food energy that can help keep you warm; may be implicated in heart disease
water	contained in food and stored in the liver; insufficient amounts can lead to illness; small amounts are used in chemical reactions within the body
vitamins and minerals	lost through perspiration, urination, and as you breathe out

Week 3 Activity Sheets

6. Why is it important to wash your hands after going to the bathroom? (p. 72) *(because up to a third of each lump of solid waste you pass is made up of bacteria; E. coil bacteria is harmless in your large intestines but can make you sick if it ends up in your food)*

7. Which body fluid do your kidneys clean? (p. 73)

saliva **mucus** **water** **blood**

8. Fill in the blank with the correct word from the box. Then order the sentences to describe how food travels through your body. Note: we have labeled the third step for you. (pp. 66–72)

liver	teeth	villus/villi	esophagus
stomach	pancreas	saliva	mouth
small intestine	rectum	large intestine	

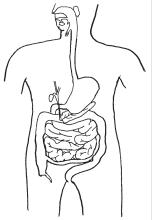
a) *(4)* The *(small intestine)* is about 4 meters long; here, enzymes break down food into very small pieces.

b) *(7)* Water is removed from the food that can't be digested in the first part of the *(large intestine)* (or colon) before passing out of the body.

c) *(5)* *(villus/villi)* are found in the walls of the intestine; they stick out like fingers; food crosses through these and goes into the bloodstream.

d) *(2)* The *(stomach)* is a stretchy bag that mashes food into a sloppy soup by soaking it in acid.

e) *(1)* In the *(mouth)*, *(teeth)* slice and grind food while *(saliva)* helps to moisten and soften it into mush before it passes into a tube called the *(esophagus)*, which moves the food to the stomach.



Week 3 Activity Sheets

f) ___3___ The _____(pancreas)_____ produces a digestive juice containing many different enzymes that can break down many types of food, including fat, in the first part of the small intestine.

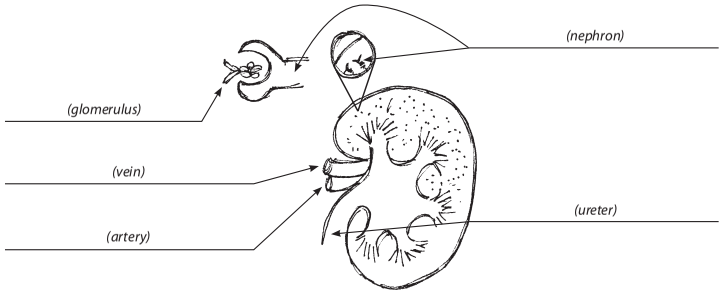
g) ___(8)___ The _____(rectum)_____ is a tube through which solid waste leaves your body.

h) ___(6)___ Blood carries nutrients to your _____(liver)_____ to be stored, changed into useful body substances, or released to be used in the body. Bile is produced here.

Blood and Guts

9. Use the words in the box to label the various parts of the kidney. (p. 83)

glomerulus	nephron	vein	artery	ureter



Week 3 Activity Sheets

10. Fill in each blank with the letter of the correct definition. (pp. 83–85)

___(d)___ bladder
___(c)___ glomerulus
___(f)___ kidney
___(a)___ nephron
___(b)___ sphincter
___(e)___ ureter

a. microscopic filtering unit of the kidney; it sorts the useful and good materials from the useless and bad materials in our blood
b. band of muscle that holds the bladder shut
c. tight knot of capillaries in the nephron
d. muscular bag that holds urine
e. tubes that connect the kidneys to the bladder
f. filters unwanted substances out of the blood

Food and Nutrition for Every Kid

11. Define. (pp. 79–80, 86)

mechanical digestion: *(physical breaking apart of food into smaller pieces)*

chemical digestion: *(breaking apart long chains of food molecules into usable parts)*

alimentary canal: *(the tube food moves through in the digestive system)*

bolus: *(the ball of food that moves through the system)*

emulsifier: *(a substance that prevents emolsion from separating)*

12. What does your small intestine use to break down fat? (p. 82) *(your small intestine uses bile created in the liver to break down fat)*

13. What part does your pancreas play in digestion? (p. 82) *(the pancreas creates juices that are able to digest remaining large molecules of carbohydrates, fats and proteins left behind by other digestive juices)*

Week 3 Activity Sheets

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   b) _____

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   _____

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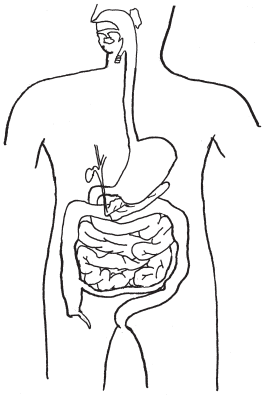

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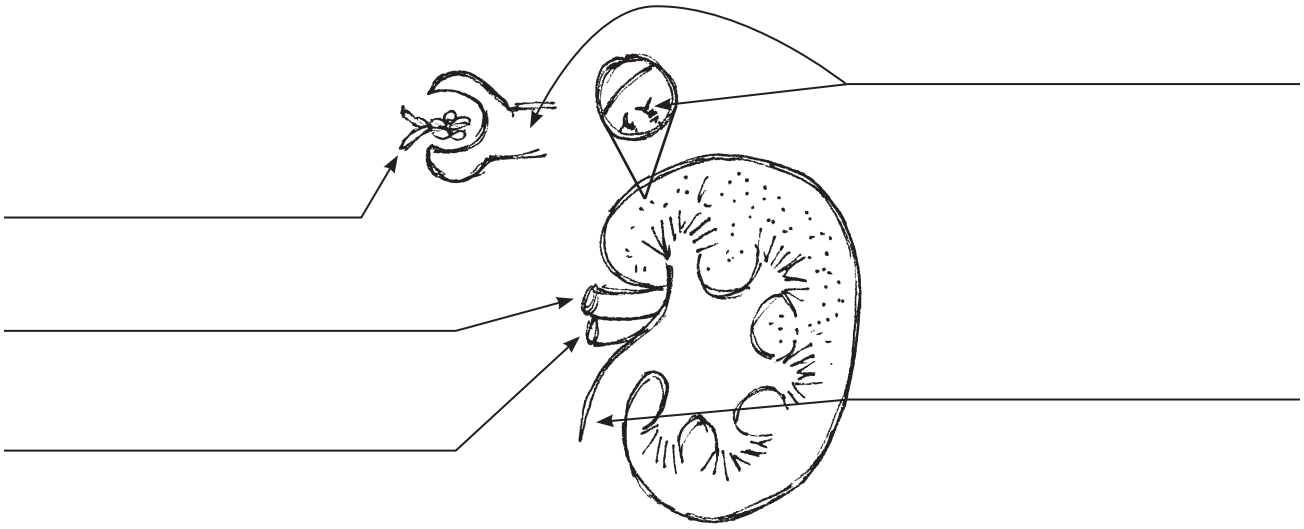

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