Instructor's Guide Quick Start

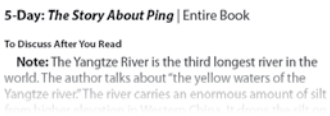
The BookShark™ Instructor's Guide (IG) is designed to make your educational experience as easy as possible. We have carefully organized the materials to help you and your children get the most out of the subjects covered. If you need help reading your schedule, see "How to Use the Schedule" in **Section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

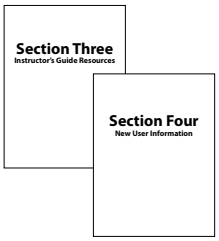
This IG includes a 36-week schedule, notes, assignments, readings, and other educational activities. For specific organizational tips, topics and skills addressed and other suggestions for the parent/teacher see **Section Three**. Here are some helpful features that you can expect from your IG.

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.

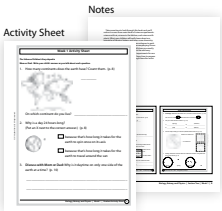
Notes
When relevant, you'll find notes about specific books to help you know why we've selected a particular resource and what we hope your children will learn from reading it. Keep an eye on these notes to also provide you with insights on more difficult concepts or content (look for "Note to Mom or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





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.



How to Use the Schedule

More notes with important information about specific books.

The N symbol provides you with a heads-up about difficult content. We tell you what to expect and often suggest how to talk about it with your kids.

4-Day Schedule:

This entire schedule is for a 4-Day program. We provide a blank cell on Day 5 to allow for your own activities and topics that you would like to teach your children.

Find the Activity Sheets for students directly after the Notes. Students should complete only the questions assigned.

We schedule optional assignments to be used if desired.

Find all the supplies needed for this week as well as the supplies needed for next week here.

Additional space for writing extra assignments, activities, or notes.

SCIENCE 1 — WEEK 1 — SCHEDULE

Date:	Day 1 1	Day 2 2	Day 3 3	Day 4 4	Day 5 5
Usborne World of Animals	pp. 6–7	pp. 8–9	pp. 10–11		
Activity Sheet Questions	#1 N	#2–3	#4–5		
Optional: Do Together	Kids' Choice		The World Around You		
***Discover & Do Level 1* DVD**				Introduction to science with magnets Tracks #35–38	
Science Activities, Vol. 1				"What can a magnet do?" pp. 26–27	
Activity Sheet Questions				#6	
Supplies N	**We provide: BSK**—2 magnets, thumbtacks, paper clips, tape. **You provide:** Science Notebook N: sheets of paper tied with yarn or a spiral bound notebook or an artist's sketchbook (use for all experiments); assorted items (examples: jewelry, keys, coins, bottle caps, mug, scissors, foil, etc.); thread; paper; paints or crayons; large box.				
Shopping/Planning List	**For next week:** ruler, scissors, thread.				

Other Notes

Day 1

Usborne World of Animals | pp. 6–7

The book says, "Earth is the only known planet to support living things." Isn't that amazing? Scientists known as astrobiologists attempt to find signs of life in space. While other planets have been discovered that appear to have the necessary conditions to support life, they are much to far to travel to or communicate with.

As the book points out, a basilisk lizard can run on water. It can do so only because it doesn't weigh much (from 2 grams up to about 7 ounces) and because it moves quickly.

Activity Sheet Questions | #1

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.

Suggestion: Your Student's 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 sets of the Activity Sheets may be purchased for each child (Item #BSB1).

Occasionally we assign a "cut-out" activity. Please find these separate sheets in **Section Three** of your guide. If you like, color the sheets first, then cut them out and attach them to the worksheet.

N Special Note to Mom or Dad

Animals, Astronomy, and Physics | Section Two | Week 1 | 1

Date:	Day 1 1	Day 2 2	Day 3 3	Day 4 4	Day 5 5
The Usborne Book of Knowledge	pp. 52–53	pp. 54–55	pp. 56–57	pp. 58–59	
Activity Sheet Questions	#1–2	#3–4	#5–6	#7–8	
Optional: Do Together	Monkey Bars		Mocha Bear		

Other Notes

Day 1

The Usborne Book of Knowledge | pp. 52–53

Are you or your children bothered by the phrase stating that chimpanzees "are the animals most like people"? It probably depends on what is meant. While humans and chimpanzees are strikingly genetically similar, there are many animals that share the similarities of creativity (monkeys), communication (whales and dolphins), intelligence (elephants), and even loyalty (canines) with humans.

Activity Sheet Questions | #1–2

Find the Activity Sheets after the notes. They are assigned on each schedule page. Each Activity Sheet has a corresponding Answer Key page following these schedule pages.

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 it.

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 they enjoy and simply talk through others.

We have provided space for you to fill in answers as your children responds 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 #CSB1).

Optional: Do Together | Monkey Bars

Do you have a playground with monkey bars nearby? If so, take your children for some play time. Help them swing on the monkey bars. Explain that monkey bars got their name because you have to swing from rung to rung just like a monkey (or an ape or a chimpanzee) swings from branch to branch in the jungle. If you can't get to a playground with monkey bars, you can help them swing like a monkey from the branches of a tree at home. As you enjoy your time playing together, talk about what they've learned so far about apes and chimpanzees. Would they ever want one as a pet? Why or why not? Have fun engaging in a little monkey business.

N Special Note to Mom or Dad

Day 2

The Usborne Book of Knowledge | pp. 54–55

While the book is correct in noting that giraffes appear awkward when they need to take a drink, it fails to point out that the mechanisms involved in this process are pretty amazing. Why doesn't the blood rush to a giraffe's head and cause a hemorrhage when it takes a drink? Because special valves in the giraffe's head regulate the pressure. There are other interesting things at work inside a giraffe taking a drink, too, such as the need for a powerful heart and special tissue near the brain. [p. 54]

Activity Sheet Questions | #3–4

Day 3

The Usborne Book of Knowledge | pp. 56–57

Activity Sheet Questions | #5–6

Optional: Do Together | Mocha Bear

Help your children create a neat brown bear art project suitable for hanging on the refrigerator. All you'll need is the following: paper, crayons or markers, glue, and coffee grounds. Start with a blank piece of paper and draw the shape of a brown bear on it. If you can't draw very well, feel free to print a picture of a brown bear from the Internet that you can trace or use as a guide. When you're done, have your children cover the bear's shape with glue. While the glue is still wet, gently shake some coffee grounds onto the glue and let it dry. When their brown bear is dry, ask your children to use crayons or markers to color an interesting background behind it. As they work, discuss what they learned this week about brown bears.

Day 4

The Usborne Book of Knowledge | pp. 58–59

Activity Sheet Questions | #7–8 ■

Week 1 Activity Sheet

The Usborne Book of Knowledge

1. Label each animal as an **ape** or a **monkey**. (p. 52)

(monkey)

(ape)

2. How do chimps use tools? (p. 53)

(they get insects to climb on blades of grass and then they eat them; also, sometimes they fight with sticks—they throw them at or hit an enemy with them)

3. Giraffes can run for long distances. (p. 54) **True** **False**

4. How do the following characteristics help giraffes survive? (pp. 54-55)

long neck: *(help them reach high in the trees for food)*

heavy hooves: *(defend themselves from predators)*

long tongue: *(help strip leaves from trees)*

5. Where do bears live? Circle all that apply. (pp. 56-57)

Asia	**Europe**	**South America**
Africa	**North America**	**Australia**
Hawaii	**Antarctica**	**The Arctic**

Week 1 Activity Sheet

6. Describe three ways bears obtain food. (pp. 56-57)

1) *(Possible: fishing, dig honey out of trees, pounce on seals as they sleep,*

2) *pull seals from the water when they come up for air, forage for berries,*

3) *eat ants, etc.)*

7. Circle the biggest cat in the world. (p. 58)

leopard

tiger

cat

8. Why is a tiger's coat good camouflage? (p. 58)

(because the stripes make it difficult to see the tiger in long grass, shady places, and moonlight)

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Week 1 Activity Sheet

The Usborne Book of Knowledge

1. Label each animal as an **ape** or a **monkey**. (p. 52)

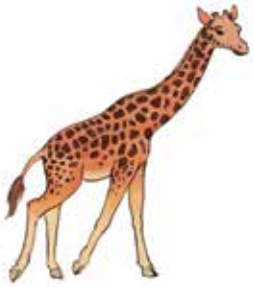
_____ _____

2. How do chimps use tools? (p. 53)

_____

_____

3. Giraffes can run for long distances. (p. 54) **True** **False**



4. How do the following characteristics help giraffes survive? (pp. 54-55)

long neck: _____

heavy hooves: _____

long tongue: _____

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Asia	**Europe**	**South America**
Africa	**North America**	**Australia**
Hawaii	**Antarctica**	**The Arctic**

Week 1 Activity Sheet

6. Describe three ways bears obtain food. (pp. 56-57)

   1) _____

   2) _____

   3) _____

7. Circle the biggest cat in the world. (p. 58)

leopard

tiger

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8. Why is a tiger's coat good camouflage? (p. 58)

   _____

   _____

Date:	Day 1 6	Day 2 7	Day 3 8	Day 4 9	Day 5 10
The Usborne Book of Knowledge	pp. 64–65	pp. 78–79	pp. 80–81	pp. 82–83	
Activity Sheet Questions	#1–3	#4	#5–6	#7–9	
Optional: Do Together	Elephants		Pouch Pals		
Shopping/Planning List	**For next week:** apple, milk, kiwi, box of gelatin, two large bowls, box of pudding (if you want to do the alternate experiment). N				

Other Notes

Day 1

The Usborne Book of Knowledge | pp. 64–65

Activity Sheet Questions | #1–3

Optional: Do Together | Elephants

To reinforce what your children learned today, ask them to tell you all they can remember about elephants. How tall are they? How much do they weigh? What do they like to eat? Then ask them to act like elephants. Can they show you how a big elephant walks? How would an elephant use its trunk to pick fruit off of a tree or to get water to drink or for a shower? Challenge them to really get into the role. If they were elephants, what could they do easily? What would be really hard? After they've had fun pretending to be elephants for a while, ask them: if they could be an elephant for a day, would they want to be? Why or why not?

Shopping/Planning List

When supplies are listed as "**We provide:**," they are materials found in your Science 2 Supplies Kit (**CSK**). When supplies are listed as "**You provide:**," they are materials you can generally find around your home.

Shipping Restrictions

Due to strict import regulations, it is illegal to ship biological matter to certain countries (including New Zealand and Australia). If you requested your science supplies shipped to a country with such restrictions, we have removed that kit from your order and reduced your charge accordingly.

Day 2

The Usborne Book of Knowledge | pp. 78–79

Activity Sheet Questions | #4

Day 3

The Usborne Book of Knowledge | pp. 80–81

Activity Sheet Questions | #5–6

Optional: Do Together | Pouch Pals

Marsupials are interesting creatures. If your children are like most, they're probably fascinated by the fact that kangaroos and other marsupials have pouches. Today, turn your children into marsupials by giving them their very own pouches. Put a small backpack or fanny pack on your children, but swing it around so that it sits in front of their stomach. Have them place a couple of their favorite stuffed animals into their pouch and walk around with them for a while. As you review what you learned about kangaroos today, ask them if they wish they had a real pouch. Why or why not? What kinds of things could they carry in their pouch if they had one? Their books? Snacks? A change of clothes? As a final challenge, ask them to jump around like kangaroos. How easy is it to jump around with a full pouch? Hopefully they'll have a new appreciation for the uniqueness of marsupials.

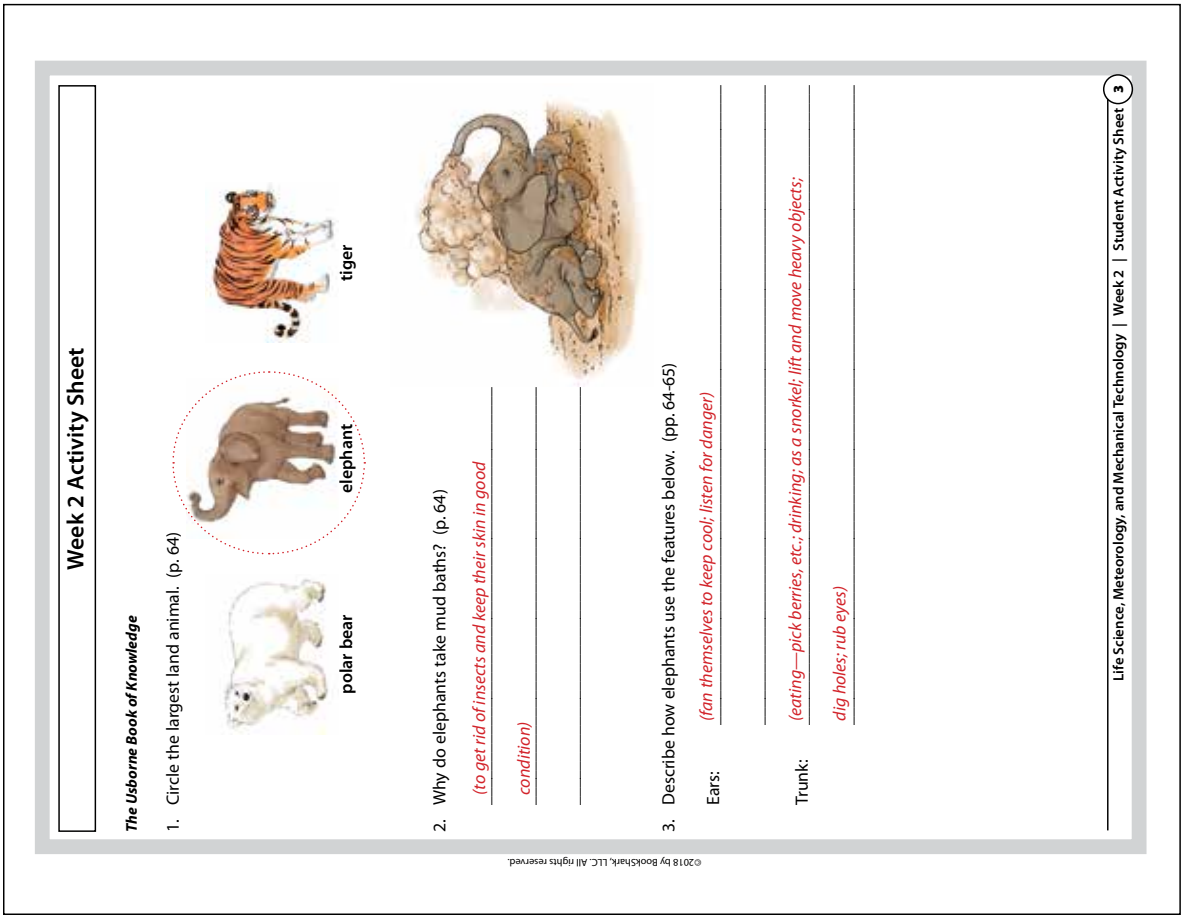
N Special Note to Mom or Dad

Day 4

The Usborne Book of Knowledge | pp. 82–83

With webbed forelimbs and light bones, bats are the only mammals capable of sustained flight. Other small mammals, such as flying squirrels and gliding possums, may appear to be soaring among the trees but, in fact, are actually gliding from higher to lower locations. Some of these various gliders have webbing between their fingers, while some have bones stretching from their wrists for steering. These gliding membranes are remarkably similar to the wings of bats, but sturdier and covered in fur. Interestingly, some bats have a membrane connecting their legs and tail. This wing/hind limb integration is unlike the wings of any bird, but is a trait shared with gliders.

Activity Sheet Questions | #7–9 ■



Week 2 Activity Sheet

The Usborne Book of Knowledge

1. Circle the largest land animal. (p. 64)

polar bear elephant tiger

2. Why do elephants take mud baths? (p. 64)

(to get rid of insects and keep their skin in good condition)

3. Describe how elephants use the features below. (pp. 64-65)

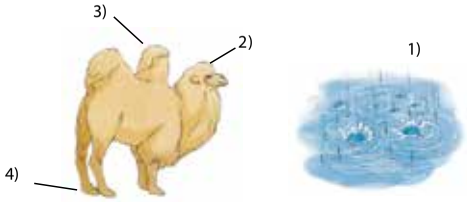
Ears: *(fan themselves to keep cool; listen for danger)*

Trunk: *(eating—pick berries, etc.; drinking; as a snorkel; lift and move heavy objects; dig holes; rub eyes)*

Life Science, Meteorology, and Mechanical Technology | Week 2 | Student Activity Sheet 3

Week 2 Activity Sheet

4. How have camels adapted to living in the desert? (p. 78)



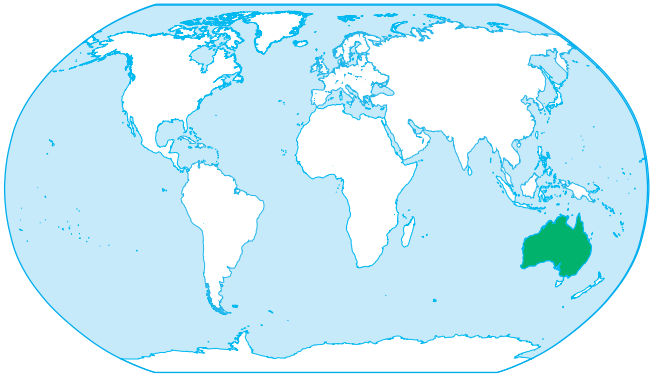
1) *(camels can go without water for many days)*

2) *(camels can shut their nostrils to keep out sand)*

3) *(camels have humps that help protect them from the sun and store fat for times of less food)*

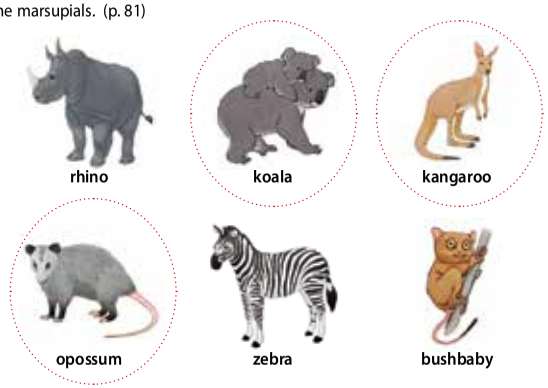
4) *(camels have soft, fleshy pads on the bottoms of their feet to keep them from sinking into the sand)*

5. Color the continent where kangaroos live. (p. 80)



Week 2 Activity Sheet

6. Circle the marsupials. (p. 81)



7. Lots of furry animals fly, including bats. (p. 82) **True** **False**

If false, make the sentence true. *(bats are the only furry animals that fly)*

8. How does a bat find its prey? (p. 82)

(bats make high-pitched squeaks; the echoes tell it where the prey is)

9. What do bats eat? (pp. 82-83)

- [x] fruit
- [x] insects
- [x] fish
- [ ] mountain lions
- [x] blood
- [x] nectar

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Week 2 Activity Sheet

The Usborne Book of Knowledge

1. Circle the largest land animal. (p. 64)

polar bear

elephant

tiger

2. Why do elephants take mud baths? (p. 64)

_____

_____

_____

3. Describe how elephants use the features below. (pp. 64-65)

Ears: _____

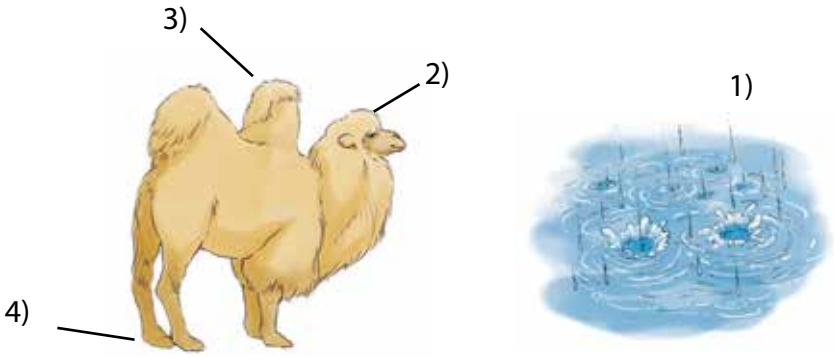
_____

Trunk: _____

_____

Week 2 Activity Sheet

4. How have camels adapted to living in the desert? (p. 78)



1) _____

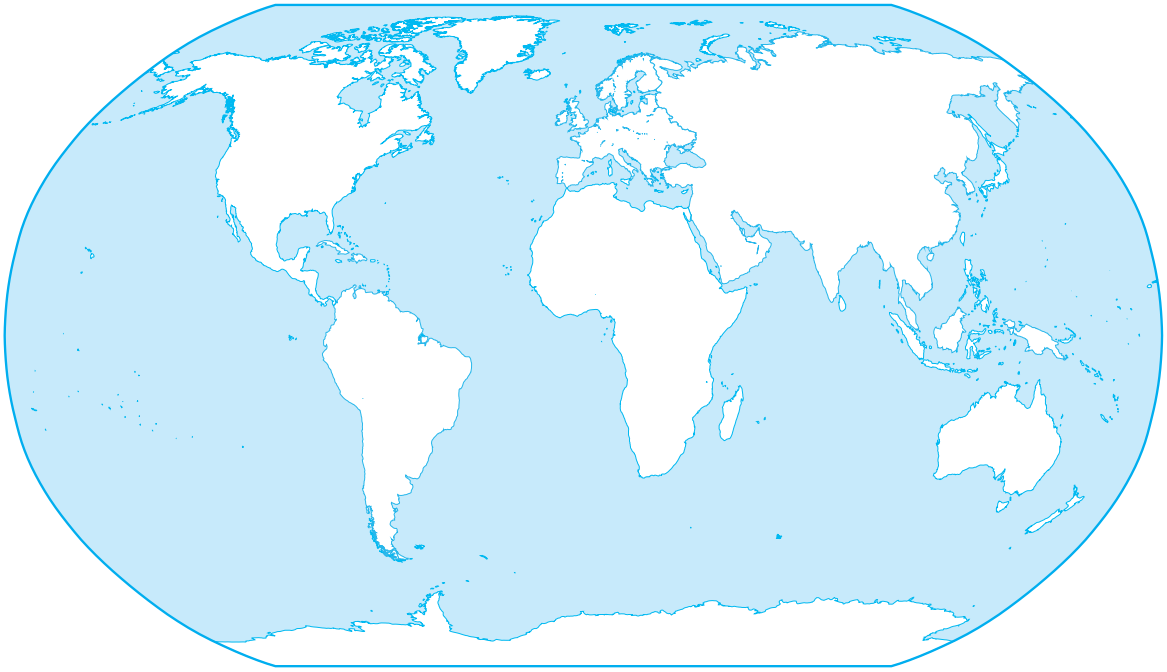
2) _____

3) _____

4) _____

_____

5. Color the continent where kangaroos live. (p. 80)



Week 2 Activity Sheet

6. Circle the marsupials. (p. 81)


rhino


koala


kangaroo


opossum


zebra


bushbaby

7. Lots of furry animals fly, including bats. (p. 82) **True** **False**

If false, make the sentence true. _____

8. How does a bat find its prey? (p. 82)

_____

_____

9. What do bats eat? (pp. 82-83)

- ☐ fruit
- ☐ insects
- ☐ fish
- ☐ mountain lions
- ☐ blood
- ☐ nectar

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Date:	Day 1 11	Day 2 12	Day 3 13	Day 4 14	Day 5 15
The Usborne Book of Knowledge	p. 98	pp. 100–101	pp. 102–103		
Activity Sheet Questions	#1–2	#3	#4–5		
Discover & Do Level 2 DVD				Tracks #47–48	
Science Activities, Vol. 3				"Feeding Your Body" pp. 40–41	
Activity Sheet Questions				#6–7	
Supplies	**We provide: CSK**—mirror. **You provide:** apple, milk, kiwi, box of gelatin, two large bowls, box of pudding (if you want to do the alternate experiment).				
Shopping/Planning List	**For next week:** tennis ball, watch with second hand**.**				

Other Notes

Day 1

The Usborne Book of Knowledge | p. 98

Activity Sheet Questions | #1–2

Day 2

The Usborne Book of Knowledge | pp. 100–101

Do these pages look a little cluttered to you? Maybe a bit confusing to follow? The pages in this entire section on the human body all follow pretty much the same structure, so it's a good idea to familiarize yourself with it now so that it will be easier for you and your children to understand these pages.

Begin by looking at the main heading, which on these two pages is "An Eating Machine" on page 101. Then read the bold text under this title. This will help you and your children understand what the main topic on the pages is all about. Now you'll have to figure out what makes sense to study next. These pages all seem to go from a progression that is left to right. As a result, you can start on the top left and follow the text to the right.

It's fine if you don't follow all the text in the text bubbles exactly in a particular order, so long as your children get an idea of the concepts. Note, too, that sometimes you'll see little boxes of text and images, such as the one on the bottom of page 100, "Where Your Eating Machine is." These are sidebars that provide additional information about the topic being studied.

Allow your children to enjoy and study these pages and don't fuss too much about the "right" order.

Activity Sheet Questions | #3

Day 3

The Usborne Book of Knowledge | pp. 102–103

The food pipe is technically known as the *esophagus* (oesophagus in British English) or the gullet. The windpipe is also known as the *trachea*. [p. 103]

Activity Sheet Questions | #4–5

N Special Note to Mom or Dad

Day 4

Discover & Do Level 2 DVD | Tracks #47–48

We produced this fun and educational video so you and your children could watch "Professor Justin" perform each of the assigned experiments from *The Usborne Book of Science Activities, Vol. 3*. 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.

Science Activities, Volume 3 | "Feeding Your Body" pp. 40–41

Science Notebook

Scientists keep diaries and journals. In these journals they record their theories, the procedures of their experiments, and their observations as their experiments progress. Their hope is that the results they observe will lead to new discoveries. Skills of observation and data collection are therefore fundamental to scientific research. These are important skills and habits for all children to learn.

Help your children learn this discipline by working with them to record their experiments and observations in their own personal Science Notebooks.

You can either make your own notebook by tying together sheets of paper with yarn or use a spiral-bound notebook. We recommend the bound ruled notebooks that college students use because they are durable and stack so nicely on bookshelves. Don't worry about making it too complicated. Just provide a vehicle for recording drawings, questions, and observations. Make a special heading for each new experiment or field trip.

Perhaps someday when your children are grown and working as medical doctors keeping logs on their patients, or researchers keeping records of their experiments, you can smile to yourself and remember how you helped get them started.

"Breaking Down"

Alternate Experiment: Make some pudding with a spoon, eat some out of the bowl, leave some pudding on the spoon. Saliva has moved from your mouth into the bowl of pudding. Leave the remaining pudding in the refrigerator overnight. The next day you will notice some of the pudding has broken down due to the enzymes in your saliva. The broken down pudding looks very watery compared to the pudding your spoon did not touch. [p. 41]

Activity Sheet Questions | #6–7 ■

Week 3 Activity Sheet

The Usborne Book of Knowledge

1. What is one thing a machine can do better than you? (p. 98)

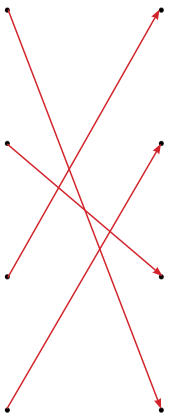
   Kind of machine: *(Possible: a) cars b) computer c) crane)*

   What it can do better: *(a) move faster b) make calculations more quickly c) lift heavier loads)*

2. How are you better than any machine? (p. 98)

   (Possible: our bodies can do many different jobs at the same time; we can have new ideas and make jokes, change our minds and have babies)

3. Match the pictures with the correct steps as to how your body digests food. (pp. 100-101)



Food goes from the small intestine into the blood, where it is carried all around.

We get rid of the food we can't use in the bathroom.

In the stomach, food is mixed with stomach juice and becomes like soup.

Saliva and teeth break up the food.

Week 3 Activity Sheet

4. What four tastes do the taste buds sense? (p. 103)

   1) *(sweet)* 2) *(sour)*

   3) *(salty)* 4) *(bitter)*

5. Why does brushing your teeth help you avoid cavities? (pp. 102-103)

   (because when you brush the liquid from chewed food off of your teeth, it can't make tiny holes where bacteria can grow to cause cavities.)

Science Activities, Volume 3

6. a. Are all of your teeth the same shape? (p. 40) **Yes** **No**

   b. Which of your teeth bite (choppers)? (p. 40) **Front** **Back**

   c. Which of your teeth chew (grinders)? (p. 40) **Front** **Back**

7. Use the words in the box to complete the statement.

food	saliva	stomach

   In your body, enzymes are in your *(saliva)* and in your *(stomach)*.

   They help your body break down *(food)*. (p. 41)

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Week 3 Activity Sheet

The Usborne Book of Knowledge

1. What is one thing a machine can do better than you? (p. 98)

   Kind of machine: _____

   What it can do better: _____

2. How are you better than any machine? (p. 98)

   _____

   _____

3. Match the pictures with the correct steps as to how your body digests food. (pp. 100-101)

- Food goes from the small intestine into the blood, where it is carried all around.

- We get rid of the food we can't use in the bathroom.

- In the stomach, food is mixed with stomach juice and becomes like soup.

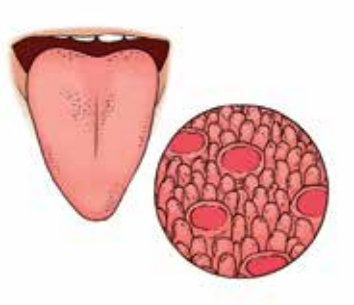
- Saliva and teeth break up the food.

Week 3 Activity Sheet

4. What four tastes do the taste buds sense? (p. 103)

   1) _____ 2) _____

   3) _____ 4) _____



5. Why does brushing your teeth help you avoid cavities? (pp. 102-103)

   _____

   _____

   _____

Science Activities, Volume 3

6. a. Are all of your teeth the same shape? (p. 40) **Yes** **No**

   b. Which of your teeth bite (choppers)? (p. 40) **Front** **Back**

   c. Which of your teeth chew (grinders)? (p. 40) **Front** **Back**

7. Use the words in the box to complete the statement.

food	**saliva**	**stomach**

In your body, enzymes are in your _____ and in your

_____.

They help your body break down _____. (p. 41)

Science 2—Weekly Subject List

Week	Subject
1	chimpanzees/apes/giraffes/bears/tigers
2	elephants/camels/kangaroos/bats
3	eating and digestion/teeth/tongue
4	blood/circulation/germs
5	breathe/breathing/vocal cords/speech
6	ears/hearing/touch
7	eyes/sight/nose/nutrition
8	brain/childbirth
9	bones/muscles/body systems
10	skin/fingerprints/blood vessels/nerves
11	birds/ostriches/penguins
12	grebes/drakes/pelicans/cormorants/storks/herons/flamingos
13	wans/geese/ducks/birds of prey/pheasants/chickens
14	waders/cranes/gulls/terns/auks/pigeons/cuckoos/parrots
15	owls/swifts/hummingbirds/kingfishers/hornbills/woodpeckers/toucans
16	perching birds/bird facts/weather
17	seasons/sun/shadows
18	clouds/evaporation
19	rain/clouds and rain/snow/hail
20	dew/frost/wind
21	lightning/tornadoes/hurricanes/wind
22	light/waves/icebergs/fog/deserts/volcanoes
23	weather forecasting/barometer/climate change
24	weather power/weather facts
25	inside the earth/batteries
26	space machines/airplanes/hovercraft/electrical current
27	jets/helicopters/boats/railroads/circuits
28	race cars/submarines/tanks/missiles/switches
29	fighter planes/fighting machines at sea/rescue machines/circuit
30	construction/mining/buzzers
31	oil drilling/farm and dairy machines/electrical current
32	home machines/motors/magnets
33	Marie Curie/radium/batteries/meters
34	energy/gravity/pressure/inside the earth/electricity
35	heat/waves/rays/sound/light
36	circuits/magnets/electricity