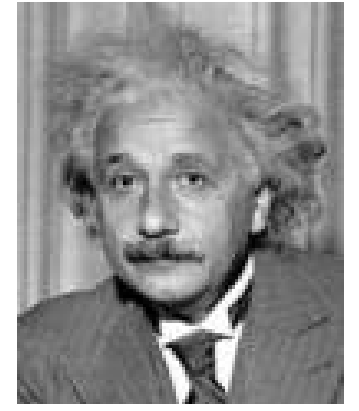




Sir Isaac Newton



Louis Pasteur



Albert Einstein

A
SCIENCE
Winter
Inquiry
Land
Answer Key

Grade 2

Winter 2011-2012



Miami-Dade County Public Schools
Curriculum & Instruction

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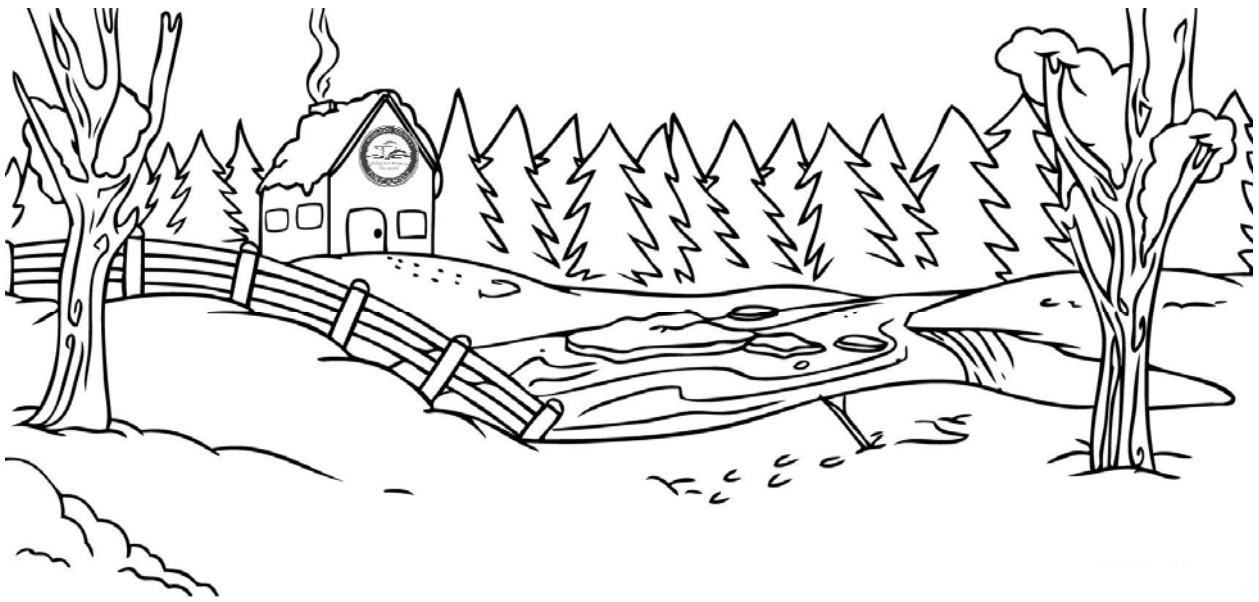
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Answer Key Bugs!

Children can improve their understanding of the natural world and their classification skills by observing bugs

Background

Bugs do what they do to survive. They're constantly looking for food. Bugs can be both helpful and harmful. Termites, for example, have a bad reputation because they destroy houses by eating the wood. But termites have a good side, too. In a forest, they break down dead trees, which keep the forest floor from becoming too cluttered.

What You Need

Books about insects and spiders—preferably with photographs *Your neighborhood public library is a great resource to find these books.*

What to Do

- With your child, search your home and neighborhood for bugs. Look for bugs:
 - around your front door
 - in cracks in the sidewalk
 - in gardens
 - at picnic areas
 - on lights
 - in corners of rooms
- With your guidance, help your child to identify each type of bug that you find, such as *ants, spiders, beetles, crickets, bees, flies, butterflies, mosquitoes, moths, wasps or ladybugs.*
- If you find ants, point out that *ants work together as a community.* Have your child observe, for example, what an ant does when it finds a bit of food. Explain that when *an ant finds food, it doesn't eat it on the spot. It runs back to the hill to "tell" the other ants. As it runs, it leaves a trail that the other ants can smell. These ants can then find the food by smelling their way along the trail.*
- Find out about spiders:
 - Why do spiders spin webs? *The reason why spiders spin webs is because they use the sticky webs to trap other bugs, since this is what they eat! They use their webs for all sorts of things, such as climbing and building egg sacs for their babies.*
 - What are webs made of? *The spider makes silk from its silk glands. This silk is made of protein. The result is a material that is very light yet very strong.*
 - How many pairs of legs do they have? *Spiders have 4 pairs of legs or 8 legs.*
- Help your child to think of other ways that she might classify the bugs—for example, by *color or by size or by whether they have wings or antennae. Answers will vary depending on the bugs that were selected.*



Sounds

The poem below is all about sounds. **While reading it, think of all the sounds that you hear. After reading the poem, complete the short activity on the following page.**



Sounds

By: Paula Nelson-Shokar

Shhhhhhhhhhh! Listen closely.
What sounds do you hear?
You might hear a bird or plane,
Or a car coming near.
Can you hear the sound of the wind,
Or kids playing in the park?
I can hear the meowing of my cat
And a little dog bark.
Can you hear wind in the trees
Or when the clock ticks?
I can hear the buzz of a bee,
And sound of the music.
I can make my own sounds
Like whistling and talking to you.
I love the sound of giggling,
And opening a bag that's new.
Shhhhhhhhhhh! Listen closely.
What sounds do you hear?
You might hear a bird or plane,
Or just me whispering in your ear.



Answer Key Science Walk

Observing closely is an important part of science, and tools such as a magnifying glass help scientists—even young ones—to observe, measure and do things that they otherwise could not do.

Background

Even a walk around the yard can provide many opportunities to introduce children to scientific concepts and processes by helping them to gain the scientific habit of observing what's around them.

What You Need

Science journal (Pad of paper or notebook)

What to do

Take a walk outside with your child—around the yard, to the end of the block, in the park, on the beach—anywhere that's convenient. Invite them to bring along a science journal and show them how to use a magnifying glass. As you walk, stop and—depending on the weather—*ask your child to use the lens to examine things such as the following:*

- dirt
- leaves (from the same tree, one on the ground and one on the tree)
- a flower
- rocks
- grass
- bugs
- a mud puddle
- sand

Ask your child to talk about what they observed. Ask, for example:

What's on each side of this leaf? *Answers will vary depending on the leaf. Some descriptive words could be smooth, rough, color, veins, texture or feel, shape, size, etc.*

Answer Key

After your walk answer the following questions:

1. How is this leaf on the ground different from the one on the tree? Answers will vary depending on the leaf and the length of time it has been on the ground. Some answers could be that the leaf on the ground is brown and dry (the leaf is no longer living and growing) while leaf in the tree is green and soft (still living and growing).
2. Are all the petals on this flower the same size and color? Answers will vary.
3. Are these rocks exactly alike? Answers will vary.
4. How are they different? Answers will vary.
5. How many legs does this bug have? Answers will vary. Bugs have 6 or more legs.
6. How many colors can you see in this mud puddle? Answers will vary.
7. Is this rock smooth or rough? Answers will vary.
8. Is it hard or soft? Answers will vary.
9. Is it dry or wet? Answers will vary.
10. Is it alive? Answers will vary. Is it living and growing?
11. How do you know? All living things grow, breathe, reproduce, excrete, respond to stimuli, and have similar basic needs like nourishment.
12. What shape is it? Answers will vary.
13. Give your child two different kinds of rocks or flowers. Describe how they are alike and different. Answers will vary. First list things that are the same, and then list the things that are different based on the observations already made in previous questions.
14. Record your observations, reactions, findings and opinions in the journal box below.

I went to _____ for my Science Walk. (Next tell the child to use his/her senses to describe what they saw, felt, smelled, heard, (hopefully not tasted). Ask the child to describe how they felt about what they found and any other observations that can be made.



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