by Kevin Kurtz

LIVING THINGS and NONLIVING THINGS

A Compare and Contrast Book

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A Compare and Contrast Book

Using a wide variety of stunning photographs, author Kevin Kurtz poses thought-provoking questions to help readers determine if things are living or nonliving. For example, if most (but not all) living things can move, can any nonliving things move? As part of the ***Compare and Contrast*** series, this is a unique look at determining whether something is living or nonliving.

Arbordale Publishing offers so much more than a picture book. We open the door for children to explore the facts behind a story they love.

Thanks to Lennie Dusek, Early Childhood Specialist at the Museum of Discovery in Little Rock, AR for verifying the accuracy of the information in this book.

The *For Creative Minds* includes
- Glossary
- Living or Nonliving Checklist

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Award-winning author **Kevin Kurtz** holds degrees in English literature and elementary education and started his career by working at a marine biology lab. Since then, he has combined all of these experiences by working as an environmental educator and curriculum writer for organizations such as the South Carolina Aquarium, the Science Factory Children's Museum, and the Center for Birds of Prey. Kevin has authored ***A Day in the Deep, A Day on the Mountain***, ***A Day in the Salt Marsh,*** and ***Sharks and Dolphins: A Compare and Contrast Book*** for Arbordale. Kevin also wrote *Uncovering Earth's Secrets* after spending eight weeks as the Educator at Sea aboard the marine geology research vessel *JOIDES Resolution*. Visit his website at www.kevkurtz.com.

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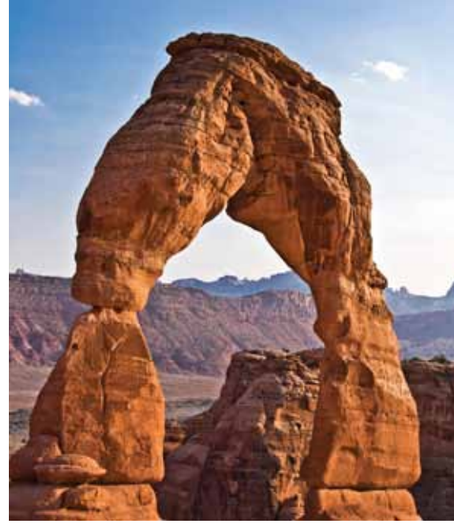
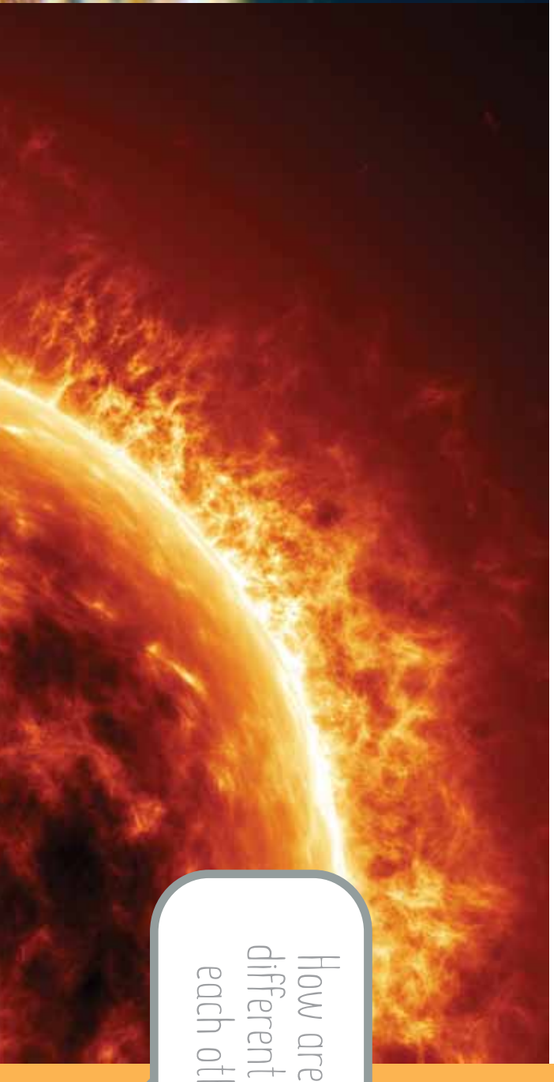
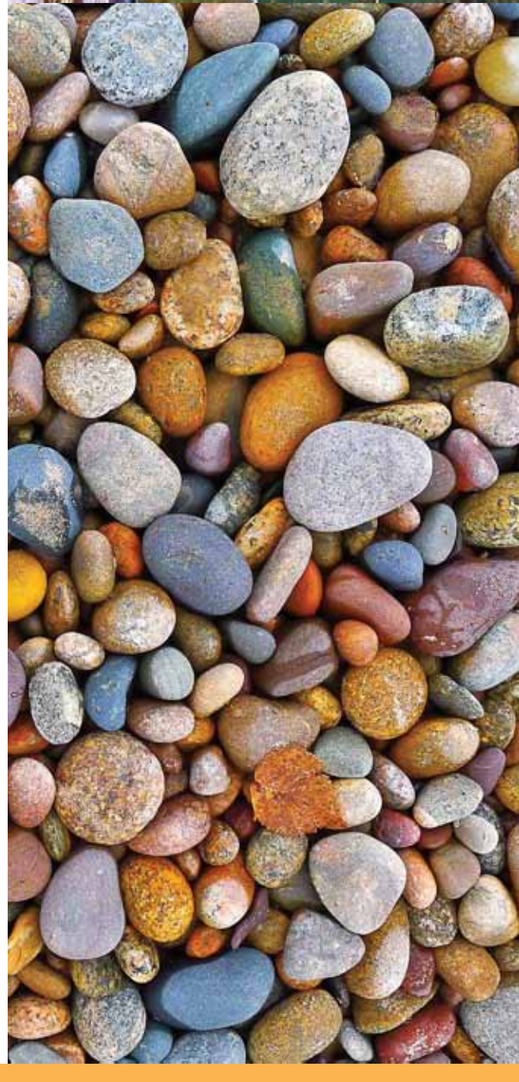
Everywhere you go,
you will see
living things.

Everywhere you go,
you will see
nonliving things.



Living things





How are they different from each other?

Nonliving things

Are living things
the only things
that move?

For Creative Minds

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Glossary

Breathe: to take in and push out a gas

Energy: the ability to do work. Work can be anything something does, like move, think, grow, or reproduce.

Environment: a system made of living and nonliving things

Grow: to change, develop, or get bigger

Reproduce: to make a copy or a new thing like itself

What are some living things in your environment? Nonliving things?

People take in gas from their environment. They take in oxygen and push out carbon dioxide.

Plants take in gas from their environment. They take in carbon dioxide and push out oxygen.

What do you do that takes energy? How do you get energy from things in your environment?

If you make a drawing of a person, is that reproduction?

Some nonliving things are not yet living things, or used to be living things but aren't any more. Which of the following was or will be a living thing?

- a mummy
- a marble statue
- frog eggs
- a painting of a person
- dinosaur bones
- a video of a cat
- petrified wood

Answers: Was or will be a living thing: a mummy, frog eggs, dinosaur bones, petrified wood. Never a living thing: a marble statue, a painting of a person, a video of a cat

Living or Nonliving Checklist

Do you think this thing is living or nonliving? A living thing will meet most or all of the criteria on this checklist. Include things that used to be a living thing or will be a living thing as "living things." For a printable version of this checklist, see the Teaching Activities at www.ArbordalePublishing.com.

bear

- ☑ Breathes
- ☑ Takes in water
- ☑ Gets nutrients and energy from its environment
- ☑ Reproduces
- ☑ Grows and changes

giraffe

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

penguin

Living: bear, penguin, giraffe. Nonliving: none

robot

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

frog

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

airplane

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

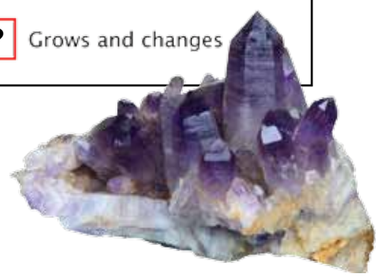
train

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

water

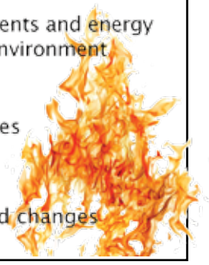
- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

amethyst



- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

fire



- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

sunflower

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

ladybug

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

sea turtle

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

teddy bear

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

volcano

- ? Breathes
- ? Takes in water
- ? Gets nutrients and energy from its environment
- ? Reproduces
- ? Grows and changes

Living: frog. Nonliving: robot, airplane, train, water, amethyst

Living: ladybug, sunflower, sea turtle. Nonliving: fire, teddy bear, volcano

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