

Awesome Facts About

SPACE



The Rho Ophiuchi
cloud complex nebula



Awesome Facts About
SPACE

Kids
Answers

a publication of Answers in Genesis

ISBN: 978-1-9844-1335-2

Product ID: 1005678

Copyright © 2024 Answers in Genesis

Kids Answers is a publication of Answers in Genesis.

All rights reserved. No part of this book may be used or reproduced in any manner without written permission from the publisher. For inquiries about permissions, write Answers in Genesis, PO Box 510, Hebron, KY 41048.

Front cover design: Chris Neville, Michaela Duncan

Back cover design: Michaela Duncan

Interior layout: Michaela Duncan

Editors: Evonne Krell, Linda Moore, Ryan Freeman, Gretchen Doolittle,
Julie Williquette

Content reviewers: Rob Webb, Dr. Georgia Purdom

Production: Dan Zordel, Shonda Snelbaker, Jenn Reed, Joel Leineweber,
Justine Foster, Chris Neville, Andrew Schwab

Scripture quotations are from the ESV® Bible (The Holy Bible, English Standard Version®), copyright © 2001 by Crossway, a publishing ministry of Good News Publishers. Used by permission. All rights reserved.

Text edition 2016.

Printed in China.

TABLE OF CONTENTS

What Is an Awesome Fact?	6
Chapter 1: Splendor of Space	8
Chapter 2: Excitement of Exploration	40
Chapter 3: A Terrific Tag Team	76
Chapter 4: Our Spectacular Solar System	96
Chapter 5: The Weird, Wild, and Wacky	120
Glossary	148
Index	150
Meet the Authors	151



**WHAT IS AN
AWESOME
FACT?**

Over 30 monkeys
have flown to space.





Discovering cool facts about space is an adventure! Using telescopes, satellites, and robotic spacecraft, we know more about our solar system than ever before. And each new discovery shows us that space is even more fascinating than we originally thought.

For example, the fastest-spinning stars spin over 700 times per second! Mind-blowing, right? And the sun? Well, anyone who's ever gotten a sunburn can tell you it's hot, but did you know that its surface is five times hotter than volcano lava?

The facts we learn about space should do more than just amaze us. They should inspire us to marvel at our all-powerful God. Psalm 8:3-4 says, "When I look at your heavens, the work of your fingers, the moon and the stars, which you have set in place, what is man that you are mindful of him?"

Learning about space reminds us how small we are compared to the universe. But as we stare into the night sky, we should

remember that the awesome God who created comets, planets, and spiral galaxies is the same God who has a plan and purpose for each one of our lives (Proverbs 3:5-6).

Even though the universe has God's fingerprints all over it, many people believe in the idea that a "big bang" billions of years ago formed the universe. But the Bible tells us that Earth and everything in the universe didn't come from a "big bang." God created the Earth first, and then he made the sun, moon, stars, and planets (Genesis 1:6-19).

This book explores the beautiful and bizarre objects of space. Along with facts about rockets, astronauts, and light speed, you'll learn about aliens (are they real or just a myth?) and your place in this world.

Ready to zoom into outer space? Well, buckle up. Here we go. 3, 2, 1 . . . Blast off!




THE UNIVERSE IS HUGE, so big, that it's mind-boggling. Astronomers (scientists who study space) are constantly discovering new objects in the universe—like stars that are nearly 2,000 times bigger than our sun.

This desire to understand space isn't anything new. Since the beginning, people have gazed curiously into the night sky. But only within the past 100 years have we begun to better understand God's cosmic creations. Advances in technology are helping us see farther than ever into space, and the objects we find are breathtakingly beautiful and shockingly bizarre.


It's incredible to realize that the universe was made "by the word of the LORD" (Psalm 33:6). Without a doubt, the more we learn about space and its many mysteries, the more we marvel at how wonderfully created Earth really is.

— Chapter 1 —

SPLENDOR OF SPACE



The study of space is
called astronomy.

A vibrant space scene featuring a yellow sticky note with text and a large, glowing red comet streaking across the sky. The background is a deep blue space filled with numerous bright, multi-pointed stars and a faint, colorful nebula. The sticky note is positioned in the upper left quadrant, and the comet is in the lower right quadrant.

**THE "EMPTY"
SPACE BETWEEN THE
STARS IS KNOWN AS
INTERSTELLAR SPACE.**




Two young stars
(Herbig-Haro
46/47) interact,
creating this
beautiful cloud
of dust and gas.



Earth orbits the sun at 67,000 miles (108,000 km) per hour. That means you've traveled more than 1,000 miles (1,609 km) through space just in the last minute!

Let all the earth fear
the LORD; let all the
inhabitants
of the world stand in
awe of him!
For he spoke,
and it came to be.

— Psalm 33:8–9



You're familiar with solids, liquids, and gases. But plasma (superheated, electrically charged gas) is the 4th state of matter.

Scientists estimate 99% of space matter is plasma.


**MOST OF SPACE IS COMPLETELY SILENT
BECAUSE THERE'S NO AIR OR WATER
MOLECULES FOR SOUND TO VIBRATE THROUGH.**




THE LAYER OF AIR SURROUNDING THE EARTH IS CALLED THE ATMOSPHERE.

It has the perfect combination of gases to keep the Earth at a safe temperature.





Earth's atmosphere reaches hundreds of miles above the planet's surface, but only the first 5 miles (8 km) contain enough oxygen to support human life.



The phrase “light as air”
isn’t accurate. Earth’s atmosphere
is around 30,000 times
heavier than
Mount Everest.

Mount Everest

**EVER WONDER WHY YOUR
EARS “POF” WHEN DRIVING
UP OR DOWN A MOUNTAIN?**

Altitude changes cause differences
in pressures on either side of your
eardrum. The “popping” helps
even out this pressure.



METEORS

VS

A **METEOR** is a space rock that burns as it breaks through Earth's atmosphere, leaving a glowing trail behind it.

Some meteors are rocks from the planet Mars.

METEORITES


Meteorite



The biggest meteorite ever found weighs over 100,000 pounds (45,300 kg).

When a meteor hits the surface of a planet or moon, it's called a **METEORITE.**

Because 71% of the Earth's surface is covered in water, most meteorites make a big splash instead of a loud crash when reaching the surface.

A night sky with stars and a yellow circle containing text. The sky is dark blue and black, with many small white stars. A yellow circle is in the upper right, with several orange lines radiating from it. The text inside the circle is in bold, black, uppercase letters.

**"SHOOTING STARS"
ARE ACTUALLY
METEORS FALLING
THROUGH EARTH'S
ATMOSPHERE.**



A car-sized meteor
falls to the Earth about
once every year.
The good news is that it
usually burns up before
reaching the ground.



When meteorites

slam into the

ground, they sometimes

create a hole

called a crater.

Meteor Crater, AZ

WANT TO SEE A METEOR CRASH SITE?

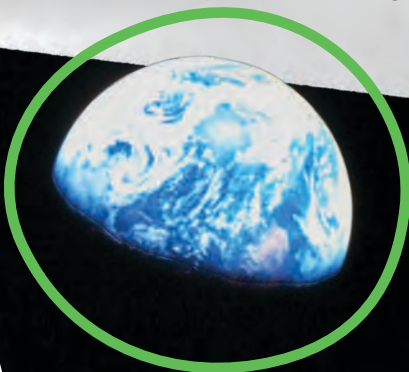
You can visit Meteor Crater in Arizona to see the almost mile-long, 600-foot-deep gash in the ground.

EARTH'S INVISIBLE FORCE FIELD

The moon's surface is covered with over 100,000 craters. Over 5,000 of these craters are at least 12 miles (19 km) wide, the result of meteorites slamming into the moon's surface.

So why don't giant meteorites like those regularly hit the Earth? Part of the answer is that Earth's atmosphere acts as an invisible force field. When meteors plunge toward the Earth, gases in the atmosphere cause friction against the rocks, making them burn up before reaching the ground.

God, in his perfect wisdom, created this protective shield on day two of creation week (Genesis 1:6) to protect the life he would create on days five and six (Genesis 1:20-27). God was making sure we would be safe before we even existed!



That's a lot of space dust!

10.4 million pounds (4.7 million kg) of space dust fall to Earth each year. That's about the **weight of 2,500 cars.**