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Discovery

Scripture & Science for Kids



What Scientists Know and Do Not Know

Branyon May

Scientists often have to stop and ponder what is known and unknown. Having unanswered questions is what drives the scientific process. However, scientists have to establish what they know in order to try and answer puzzling questions. As we consider the future, it is clear that future generations will marvel at discoveries that we cannot even begin to describe today. What is yet to be discovered,

studied, or understood will be absolutely amazing. You may be asking yourself the question, "How can we call something that is unknown, 'amazing'?" The truth is, we can be certain the future holds impressive discoveries, simply by considering what scientists already know. Every scientific discovery starts by using principles from our current understanding of the world around us...and we know some pretty amazing things about our Universe.

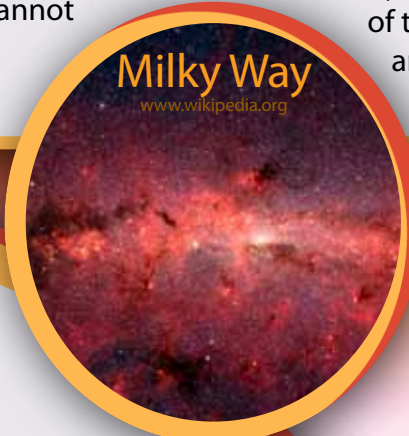
Scientists know that our Universe has amazing detail.

We often think of Earth as a complex and detailed place, and indeed it is. However, when we study other objects in the Universe we find them to have impressive details, too. Take our own Sun, for example. It is a constant source of heat and energy. Though gaseous in its composition, the

intense magnetic field which is an underlying reason for most of the amazing features such as sunspots, filaments, prominences, flares, streamers, and coronal mass ejections.

Sun has layers both in its interior and its outer atmosphere. These layers have distinctive properties and roles within the processes of energy transfer. The Sun also has an

Milky Way
www.wikipedia.org



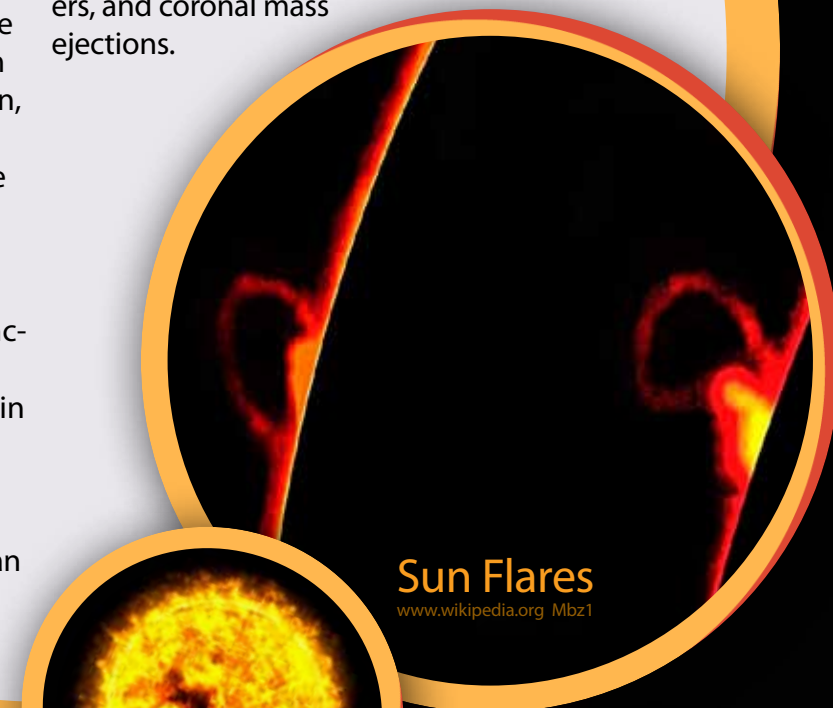
Scientists know that our Universe is structured.

Not only does our Universe contain vast amounts of matter, whose origin demands an explanation, but simple observations show that the material in our Universe is highly structured. From the microscopic colonies of bacteria to the large ecosystems of the rainforest, it is easy to see order and structure on Earth. But, are the heavens structured? Beginning in our own Solar System, we find a range of structures varying in both size and composition, from hundreds of small icy comets, to thousands of asteroids, to a variety of planets having their own complex systems of moons. All of these structures fit within a three billion mile radius around our Sun, which may seem incredibly large, but when compared to the size of our Milky Way Galaxy is less than 0.000000001% of its total diameter. When we consider the structure of galaxies, we find that every galaxy is a collection of immense amounts of gas and dust, as well as billions of stars. At larger scales, many individual galaxies are arranged in even bigger structures called galaxy clusters or superclusters. Such universal structuring demands an explanation beyond mere coincidence.

Sunspots
www.wikipedia.org



Sun Flares
www.wikipedia.org Mbz1



Sun



Stars



Nebula



Scientists know that our Universe is incredibly diverse.

We have already mentioned a few of the types of objects found in the Universe: planets, stars (like our Sun), galaxies, and clusters of galaxies. Each of these types can be divided into a multitude of smaller categories, each with distinctive characteristics. For example, planets can be rocky and mineral based solid bodies, or they can be dominated by thick gaseous layers. Galaxies can be classified as spiral, elliptical, or irregular. Spiral galaxies show beautiful spiral patterns, sometimes with ring or bar features. Elliptical galaxies are huge spherical, or even football shaped, collections of matter. But what about stars, aren't they all the same? Though stars may seem to be somewhat simple objects, in reality they come in an enormous variety. Some stars are quite consistent and regular (like our Sun); others

can pulsate and vary in size and temperature (variable stars); still others can explode in violent eruptions (nova) expelling large sections of their outer atmospheres. Have you ever heard of the names Red Giant, pulsar, or white dwarf? These are names for still more special types of stars.

What can we learn from the things that scientists know? Knowing that our Universe exists and exhibits its structure, detail, and diversity, we can understand that not only is there an amazing Creator, but that He has included in the Creation evidence of His design. If our current knowledge and observations of the Universe are amazing, then the deeper we look into the unknown, the greater we will be impressed by what the Creator has done.

Milky Way Planets



Earth's Moon



Universe



The End of an Era Pioneered by a Creationist

JEFF MILLER

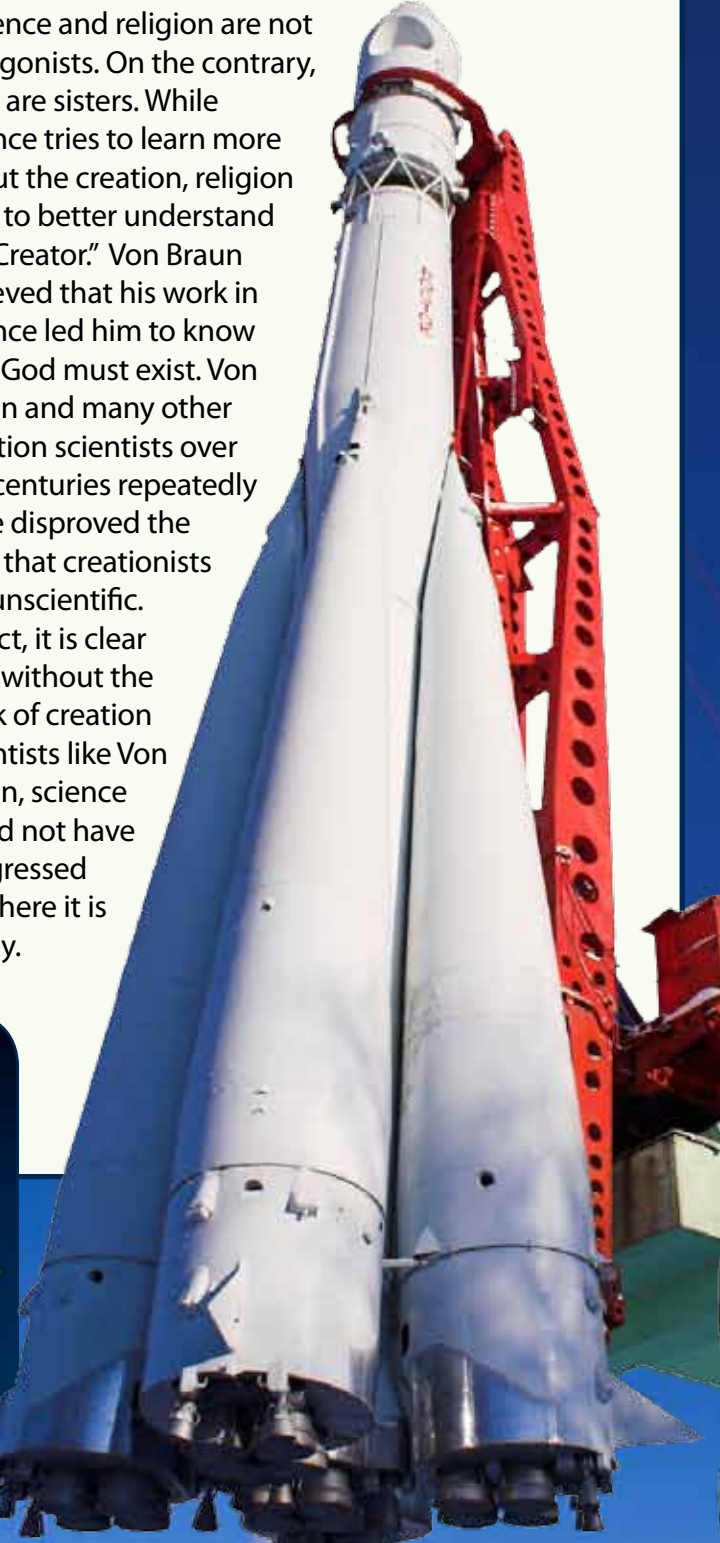


July 8, 2011 at 11:29 a.m. marked the date and time of the final flight of Atlantis and NASA's Space Shuttle Program. The amazing things that human beings have been able to do and learn about God's creation thanks to this program are countless. However, many people do not realize that the father of the space program at NASA was a strong believer in God and creation—Wernher Von Braun.

Von Braun was a well-known rocket scientist who spent many years developing ballistic missiles for the Army. In 1960, he switched from doing missile design and began using his rocket technology to launch humans into outer space. He became the first director of NASA's Marshall Space Flight Center, and according to NASA, he was "the chief architect of the Saturn V launch vehicle, the superbooster that would propel Americans to the Moon." In 1975, he was awarded the National Medal of Science. There is no doubt that he was an important person in science and the space exploration history of America.

Some people think that people who believe in God are not scientific. They think that since you cannot see, touch, taste, hear, or feel God, a scientist shouldn't believe in Him. In response to that idea, Von Braun made one of his most well-known statements on February 12, 1972, during a speech on the campus of Taylor University titled, "The Religious Implications of Space Exploration." He said:

"Science and religion are not antagonists. On the contrary, they are sisters. While science tries to learn more about the creation, religion tries to better understand the Creator." Von Braun believed that his work in science led him to know that God must exist. Von Braun and many other creation scientists over the centuries repeatedly have disproved the idea that creationists are unscientific. In fact, it is clear that without the work of creation scientists like Von Braun, science could not have progressed to where it is today.



IS THERE LIFE IN OUTER SPACE?

KYLE BUTT



Evolution is founded on the idea that non-living chemicals can accidentally get together and become life if the conditions are just right. This idea of life coming from non-life is called spontaneous generation. Spontaneous generation is impossible, but those who believe in atheistic evolution are forced to believe it, since they refuse to believe in a Creator.

If life can come from non-living chemicals, then why do we only see life on the planet Earth? The Universe is a huge place, filled with billions of galaxies and hundreds of billions of stars. Shouldn't we find life all over the Universe if evolution "accidentally" occurs? Those who reject God think that life must have evolved in other places in our Universe. They believe that if they can find life on other planets in outer space, then that will show that life could have accidentally arisen from non-living chemicals on Earth.

There are several problems with this thinking. First, life is very intricate and complex. It

cannot come from non-living chemicals by accident. Even if life were found on another planet, it would need an intelligent designer just like life on Earth. Second, there is no evidence that there is physical or biological life in outer space. Governments have spent billions of dollars sending shuttles and satellites into space to try to find life. The news media has often said that we have found liquid water on other planets and this proves there is life on those planets. But this is not true. We have never found liquid water on any planet besides Earth. Furthermore, liquid water would not mean that life evolved on that planet. A planet could be covered in oceans of water, but life would never evolve through natural processes on that planet. Life coming from non-living chemicals without God is impossible on any planet.

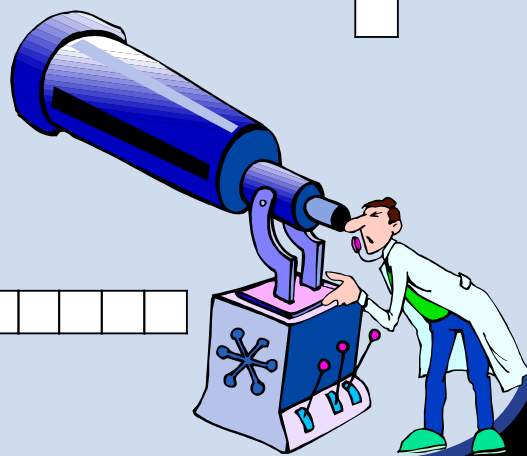
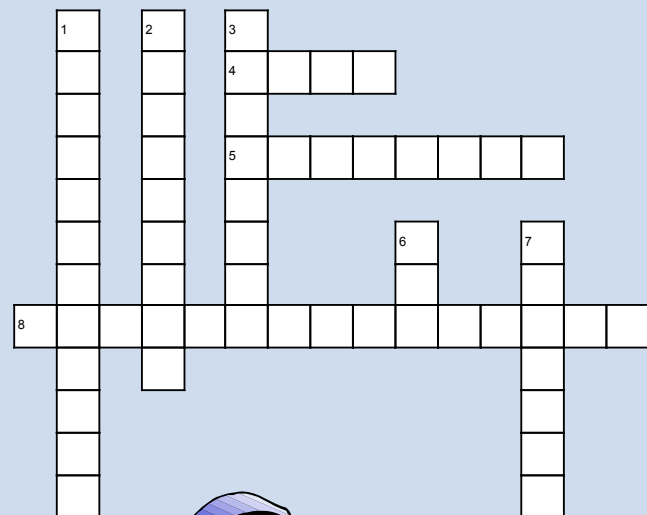
When we hear stories about UFOs, water on Mars, or life in space, we need to remember that God created everything including "outer space." There is nothing in space that will ever be found that would show God did not create life. In fact, the more we look at space, the planets, and the stars, the more we see God's amazing power (Romans 1:20).



ACTIVITY PAGES



CROSSWORD CHALLENGE



FILL IN THE BLANKS

1. "While science tries to learn more about the _____, religion tries to better understand the _____."
2. "The heavens declare the glory of _____; and the firmament shows His _____. Day unto day utters speech, and night unto night reveals knowledge. There is no _____ nor language where their voice is not heard. Their line has gone out through all the _____, and their words to the end of the world" (Psalm 19:1-4).
3. "He who _____ all things is God" (Hebrews 3:4).
4. "The Lord is _____ and greatly to be praised" for "the Lord made the _____" (Psalm 96:4,5).

Across

4. A star that explodes in violent eruptions
5. Stars that pulsate and vary in size and temperature
8. A famous rocket scientist who believed in God and Creation.
9. The galaxy in which our solar system is located

Down

1. Life coming from non-life
2. Another word for "heavens" (that the psalmist used)
3. Filled with billions of galaxies and hundreds of billions of stars
6. The name of the star in our solar system.
7. A Bible chapter that gives an easy-to-understand argument for God's existence.

TRUE OR FALSE

1. Many of those who do not believe in God think that life must have evolved in other places in our Universe.
2. Life is very intricate and complex. It cannot come from non-living chemicals by accident.
3. Our solar system makes up most of the Milky Way Galaxy.
4. It appears that the Universe is the result of an accident with no apparent design.
5. Wernher Von Braun was awarded the National Medal of Science.
6. Governments have spent billions of dollars sending shuttles and satellites to space to try to find life.
7. There are only 1,200 stars in the Universe.
8. The Sun, Moon, and Earth travel in predictable patterns.



Dear Digger Doug,
Is Pluto still a planet? If not, why not?

Dear Readers,

Thank you so much for reading *Discovery*. This month's issue has been about space. We have learned how the heavens show God's glory. You may have heard that those who study space have explained that Pluto is no longer a planet. That would mean we know of only eight planets in our solar system and not nine. How can that be? Did Pluto disappear? Did it explode? No, Pluto is still there. The only thing that happened was that scientists changed the definition of the word "planet." Since Pluto is so small, it no longer fits the new definition of "planet." Pluto is now called a dwarf planet. It is still there, just like it has been for years. And it is still the same size it has been in the past. The only thing that has changed is the definition of the word "planet." Thanks for reading. Keep sending us your excellent questions.





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ADDRESS SERVICE REQUESTED

The Heavens Declare God's Glory

ERIC LYONS

Christians normally do not try to prove the existence of God to unbelievers by reading a passage in the Bible. After all, atheists do not believe the Bible is from God. (If they did, they wouldn't be atheists.) However, one Bible passage that would be very appropriate to read to atheists is Psalm 19:1-4. These verses can be used to show someone that the Bible not only **says** that God exists, but it gives an easy-to-understand argument **for** God's existence.

It was about 3,000 years ago that King David wrote:

The heavens declare the glory of God; and the firmament shows His handiwork. Day unto day utters speech, and night unto night reveals knowledge. There is no speech nor language where their voice is not heard. Their line has gone out through all the earth, and their words to the end of the world.

What God told us through His servant David is that we can look to the heavens, examine them from afar,

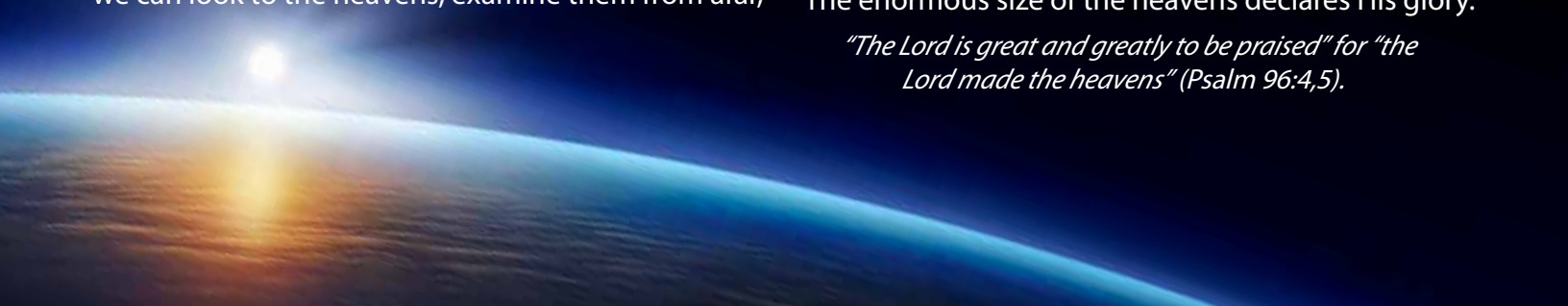
and come to the right conclusion: there must be a Creator of something so big, beautiful, and well-designed. The heavens and the Earth testify day after day and night after night that



"He who built all things is God" (Hebrews 3:4). "There is no speech nor language" of any mature person on Earth who cannot understand this truth. People may willfully choose not to believe it, but the evidence from the heavens for a Creator "has gone out through all the earth...to the end of the world."

How do you account for the fact that the Earth is just the right distance from the Sun for life to exist on Earth? How did the Moon get into just the right spot in space to help control the movement of the Earth's oceans? Why is it that the Sun, Moon, Earth, and stars travel in predictable **patterns**? The fact is, the amazing design of the "firmament (heavens) shows His [God's] handiwork." The countless number of stars in the night sky testifies to God's greatness. The enormous size of the heavens declares His glory.

"The Lord is great and greatly to be praised" for "the Lord made the heavens" (Psalm 96:4,5).



ANSWERS

CROSSWORD CHALLENGE: Across: 4. nova; 5. variable; 8. Werner Von Braun; 9. Milky Way; Down: 1. spontaneous generation; 2. firmament; 3. Universe; 6. Sun; 7. Psalm 19; TRUE OR FALSE: 1-T; 2-F; 3-F; 4-F; 5-T; 6-T; 7-F; 8-T.
 FILL IN THE BLANKS: 1. creation, Creator; 2. God, handiwork, speech, earth; 3. built; 4. great, heavens.
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