



Unlocking the Dark Big Bang: The Key to Dark Matter's Origins

Description

We know dark matter exists because of gravity. It makes up about 85 percent of all the matter in the Universe. But we still don't understand it well. We don't know what it is or where it comes from. We can't see dark matter because it does not interact with light.

Scientists think dark matter might not have formed with regular matter during the Big Bang. Instead, it could have come later from its own "Dark Big Bang." This idea suggests dark matter lives in a separate part of the Universe, only connected by gravity.

Research has mainly looked for weakly interacting massive particles, or WIMPs. These are the particles that might make up dark matter. However, after many years of searching, scientists have not found WIMPs.

Researchers are now exploring different ideas about dark matter. They suggest that dark matter could have formed from a special process in the dark sector of the Universe. If we can find signs, like gravitational waves, it could prove these ideas are correct.

Future experiments could help us learn more about dark matter and its origins.

Vocabulary List:

1. **Matter** /'mætər/ (noun): A physical substance that occupies space and has mass.
2. **Gravity** /'grævɪti/ (noun): The force that attracts a body towards the center of the earth or towards any other physical body having mass.
3. **Research** /rɪ'sɜːrtʃ/ (noun): A detailed study of a subject especially in order to discover new information or reach a new understanding.
4. **Particles** /'pɑːrtɪkəlz/ (noun): Very small pieces of matter.
5. **Interactions** /,ɪntə'rækfənz/ (noun): The activities or conditions that affect one another.
6. **Origins** /'ɔːrɪdʒɪnz/ (noun): The point or place where something begins or is created.

Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. What are the primary cells of the nervous system responsible for transmitting information?

Option: Axons

Option: Neurons



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- Option: Cognitive
Option: Matter
2. Which neurological disorder is characterized by recurrent seizures?
Option: Fossils
Option: Alzheimer's
Option: Epilepsy
Option: Gravity
3. Which disease is associated with memory loss and cognitive decline?
Option: Research
Option: Alzheimer's
Option: Challenges
Option: Interactions
4. Which type of cancer is primarily focused on the cervical region?
Option: Vaccination
Option: Evolution
Option: Cervical
Option: Approved
5. What is the study of the beginnings of the universe and life called?
Option: Gravity
Option: Significant
Option: Origins
Option: Particles
6. What are the remains or impressions of ancient organisms preserved in rock?
Option: Complex
Option: Relatives
Option: Discovery
Option: Fossils
7. Which part of a neuron carries signals away from the cell body?
Option: Challenges
Option: Study
Option: Axons
Option: Connect
8. Which term refers to processes related to thinking understanding and remembering?
Option: Neurons
Option: Cognitive
Option: Treatments



Option: Ancient

9. What force attracts objects toward each other?

Option: Interactions

Option: Matter

Option: Origins

Option: Gravity

10. Which activity involves systematic investigation to establish facts and reach new conclusions?

Option: Research

Option: Particles

Option: Approved

Option: Significant

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. Advancing medical science poses numerous _____ that researchers strive to overcome.

12. In a neuron dendrites receive signals the cell body processes information and axons _____ with other neurons.

13. Studying _____ civilizations provides insights into historical cultures and societies.

14. In the field of physics understanding the _____ between particles is crucial to explaining the behavior of matter.

15. The theory of _____ explains the gradual development of organisms over generations.

16. The results of the recent experiments have led to _____ advancements in the field of chemistry.

17. Regular _____ can prevent certain diseases by stimulating the body's immune



response.

18. After rigorous testing the new drug was _____ for use in medical treatment.

19. Subatomic _____ are the building blocks of all matter in the universe.

20. Advancements in medical science have led to more effective _____ for various illnesses.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. Dedicated time and effort enhance the quality of learning and acquiring knowledge.
22. Exploration and research often lead to the uncovering of new findings and breakthroughs.
23. Anything that occupies space and has mass is considered as this fundamental substance in physics.
24. Examining genetic connections and lineages can reveal family ties and ancestry.
25. Intricate systems or problems often require detailed analysis and solutions.
26. These specialized cells play a vital role in transmitting electrical signals within the nervous system.
27. Obstacles and difficulties present opportunities for growth and innovation.
28. Long slender projections of neurons that conduct impulses away from the cell body.
29. Preserved remains of ancient organisms provide valuable insights into past life forms.
30. Tiny units of matter that exhibit unique properties and interactions in various fields of science.

Answer

Multiple Choice: 1. Neurons 2. Epilepsy 3. Alzheimer’s 4. Cervical 5. Origins 6. Fossils 7. Axons 8. Cognitive 9. Gravity 10. Research

Gap-Fill: 11. Challenges 12. Connect 13. Ancient 14. Interactions 15. Evolution 16. Significant 17. Vaccination 18. Approved 19. Particles 20. Treatments

Matching sentence: 1. Study 2. Discovery 3. Matter 4. Relatives 5. Complex 6. Neurons 7. Challenges 8. Axons 9. Fossils 10. Particles



CATEGORY

1. Health - LEVEL1

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Author

aimeeyoung99

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