

NASA's Artemis Payloads Set to Explore Moon's Surface and History

Description

NASA has chosen three new science projects to go to the Moon. This is part of its Commercial Lunar Payload Services (CLPS) program and Artemis campaign. The deliveries will happen no sooner than 2028.

American companies will deliver these projects. NASA wants to work with industry to help scientific research and prepare for humans on the Moon's surface. Joel Kearns, a NASA official, said these projects will help us learn more about the Moon. They will also help ensure humans can explore safely.

One project is called EMILIA-3D. It will make 3D thermal models of the Moon. EMILIA-3D uses cameras and an imager to check temperatures and the surface of the Moon. This will help scientists understand lunar soil better.

Another project is called LISTER. It will study the Moon's heat by drilling into it. LISTER previously worked on another mission and gathered important heat data.

The last project is SELINE. It will measure radiation on the Moon's surface. This data will improve astronaut safety for long missions. NASA will send these projects on future CLPS missions.

Vocabulary List:

1. **Payload** /'peɪ.ləʊd/ (noun): The carrying capacity of a vehicle particularly for scientific instruments or equipment.
2. **Expedite** /'ɛk.spə.dait/ (verb): To make (an action or process) happen sooner or be accomplished more quickly.
3. **Lunar** /'lu:.nær/ (adjective): Of or relating to the moon.
4. **Radiation** /,reɪ.di'eɪ.ʃən/ (noun): The emission of energy as electromagnetic waves or as moving subatomic particles especially high-energy particles.
5. **Thermal** /'θɜ:r.məl/ (adjective): Of relating to or caused by heat.
6. **Ensure** /ɪn'ʃʊər/ (verb): To make certain that something will occur or be the case.

Comprehension Questions

Multiple Choice

1. Who is leading the selection of new science projects to go to the Moon?

Option: Joel Kearns
Option: Elon Musk
Option: Jeff Bezos
Option: Bill Gates

2. When are the deliveries of these new projects expected to happen?

Option: 2028
Option: 2030
Option: 2025
Option: 2035

3. Which project will make 3D thermal models of the Moon?

Option: EMILIA-3D
Option: LISTER
Option: SELINE
Option: None of the above

4. What is the main goal of the SELINE project?

Option: Study Moon dust
Option: Measure radiation
Option: Drill into the Moon
Option: Map lunar craters

5. Which entity wants to work with industry to help scientific research on the Moon?

Option: SpaceX
Option: NASA
Option: ESA
Option: Roscosmos

6. What is the purpose of the LISTER project?

Option: Study Moon dust
Option: Measure radiation
Option: Drill into the Moon
Option: Map lunar craters

True-False

7. The delivery of the new science projects is set to occur before 2028.

8. Joel Kearns is an astronaut working on the Moon missions.
9. The projects aim to improve astronaut safety for long missions on the Moon.
10. All three new projects are focused on studying lunar dust.
11. EMILIA-3D uses cameras and an imager to check temperatures and the surface of the Moon.
12. SELINE will measure gravity levels on the Moon.

Gap-Fill

13. According to the information, the projects will be delivered no sooner than _____.
14. The project LISTER will study the Moon's _____ by drilling into it.
15. The SELINE project aims to improve astronaut safety for long missions by measuring radiation on the Moon's _____.
16. Joel Kearns is a/an _____ NASA official who mentioned the importance of the new projects.
17. The EMILIA-3D project will make 3D thermal models to understand lunar _____ better.
18. In the selection process, NASA aims to work with industry to help scientific research and prepare for humans on the Moon's _____.

Answer

Multiple Choice: 1. Joel Kearns 2. 2028 3. EMILIA-3D 4. Measure radiation 5. NASA 6. Drill into the Moon

True-False: 7. False 8. False 9. True 10. False 11. True 12. False

Gap-Fill: 13. 2028 14. heat 15. surface 16. NASA 17. soil

Vocabulary quizzes

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

1. Which activity involves the search and investigation of unknown places or phenomena?

- Option: Payload
- Option: Exploration
- Option: Radiation
- Option: Mission

2. Which term is used to describe the accomplishment of an aim or purpose?

- Option: Success
- Option: Deliveries
- Option: Active
- Option: Experience

3. Who are individuals or organizations responsible for creating software or apps?

- Option: Parachute
- Option: Creators
- Option: Cambrian
- Option: Developers

4. What is a vehicle or device designed for travel or operation in outer space?

- Option: Fossil
- Option: Astronaut
- Option: Entertainment
- Option: Spacecraft

5. What is the action of teaching a person a particular skill or type of behavior?

- Option: Gills
- Option: Training
- Option: Protection
- Option: Copyright

6. What is the emission of energy as electromagnetic waves or as moving subatomic particles?

- Option: Radiation
- Option: Preserved
- Option: Request
- Option: Industry

7. Which word best describes something that causes great surprise or wonder?

Option: Unique
Option: Success
Option: Amazing
Option: Payload

8. What term describes something as being the only one of its kind?

Option: Experience
Option: Thermal
Option: Unique
Option: Payload

9. What is the activity of providing or being provided with amusement or enjoyment?

Option: Active
Option: Excited
Option: Entertainment
Option: Experience

10. What term refers to the action of carrying goods or products to a particular location?

Option: Request
Option: Deliveries
Option: Protection
Option: Creators

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

11. A _____ is a specific task or duty assigned to a person or group of people.

12. The students were _____ about the upcoming school trip to the science museum.

13. A fictional _____ with magical powers was the main character in the novel.

14. The spacecraft successfully _____ from the space station to begin its independent journey.

15. The paleontologist discovered a well-preserved _____ of a prehistoric fish.

16. The aquatic animal used its _____ to extract oxygen from the water.

17. The ancient manuscript was carefully _____ to prevent further deterioration.

18. Before landing the skydiver deployed the _____ to slow down the descent.

19. The astronaut's suit provided insulation against extreme _____ conditions in space.

20. The company operates in the technology _____ manufacturing computer components.

21. The author retained the _____ of the novel preventing unauthorized reproduction.

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

22. Safety measures and security protocols are in place to ensure the of personal data.

23. The team of skilled professionals included software engineers and graphic designers who were responsible for creating the app.

24. The artists and writers collaborated to bring the comic book characters to life establishing themselves as the of the series.

25. The customer submitted a formal for a refund due to a defective product.

26. The automotive faced challenges due to the increasing competition and economic fluctuations.

27. The discovery of ancient marine organisms provided valuable insights into the biodiversity during the period.

28. The trained conducted experiments on the effects of microgravity aboard the space station.

29. The immersive virtual reality simulation offered users a realistic of deep-sea diving.

30. The boutique showcased handmade jewelry designs that were not available in mainstream stores.

31. The team celebrated the of their project with a special dinner event.

32. The amusement park offered a wide range of options including thrill rides and live shows.

Answer

Multiple Choice: 1. Exploration 2. Success 3. Developers 4. Spacecraft 5. Training 6. Radiation 7. Amazing 8. Unique 9. Entertainment 10. Deliveries

Gap-Fill: 11. Mission



12. Excited 13. Creature 14. Undocked 15. Fossil 16. Gills 17. Preserved 18. Parachute 19. Thermal 20. Industry 21. Copyright

Matching sentence: 1. Protection 2. Developers 3. Creators 4. Request 5. Industry 6. Cambrian 7. Astronaut 8. Experience 9. Unique 10. Success 11. Entertainment

CATEGORY

1. Sci/Tech - LEVEL1

POST TAG

1. Artemis
2. ESL
3. esl news
4. L1
5. Moon
6. NASA
7. Payloads

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Date Created

2026/01/22

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