

Compréhension de l'oral, de l'écrit et expression écrite

L'ensemble du sujet porte sur l'**axe 6** du programme : **Innovations scientifiques et responsabilité.**

Il s'organise en trois parties :

- 1. Compréhension de l'oral ;**
- 2. Compréhension de l'écrit ;**
- 3. Expression écrite.**

Afin de respecter l'anonymat de votre copie, vous ne devez pas signer votre composition, ni citer votre nom, celui d'un camarade ou celui de votre établissement.


Vous disposez tout d'abord de **cinq minutes** pour prendre connaissance de **la composition** de l'ensemble du dossier et des **consignes** qui vous sont données.

Vous allez entendre trois fois le document de la partie 1 (compréhension de l'oral).
Les écoutes seront espacées d'une minute.

Vous pouvez prendre des notes pendant les écoutes.

À l'issue de la troisième écoute, vous organiserez votre temps (**1h30**) comme vous le souhaitez pour rendre compte **en français** du document oral et pour traiter **en anglais** la compréhension de l'écrit (partie 2) et le sujet d'expression écrite (partie 3).

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1.1

Les documents :

- **Document vidéo**

Titre : *Nasa announcement What is on the Moon*

Source : *BBC News, 27 October, 2020*

- **Texte**

Australia to build 20kg rover to head to Moon in joint mission with NASA

Australia has signed a deal with NASA to send an Australian-built rover to the moon, supporting a mission to collect lunar soil and examine how its oxygen could support human life in space.

5 The \$50m project will be supported by the federal government’s Moon to Mars program, with the rover to be launched as early as 2026, provided it meets a range of NASA’s conditions during development.

The partnership comes after Australia signed up to NASA’s Artemis Accords late last year, an agreement that outlines principles to “guide space exploration cooperation” between nations and allows Australia to work with the space agency.

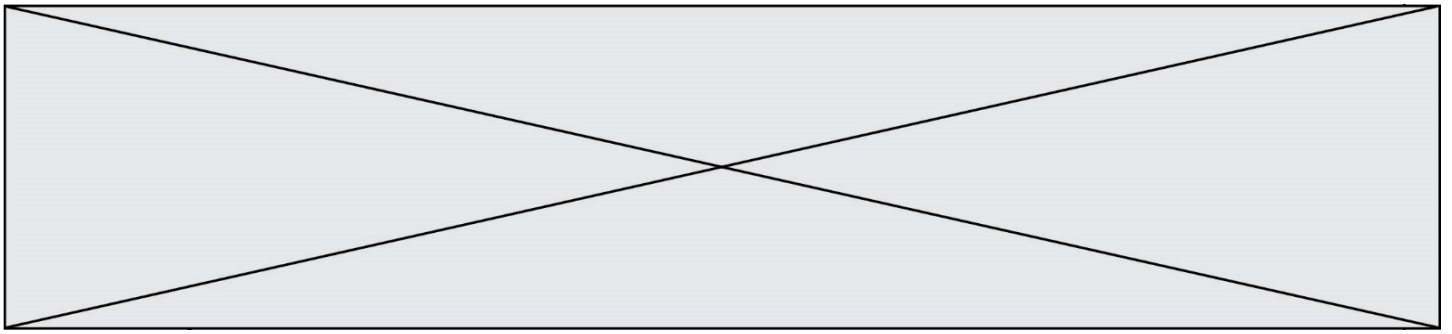
10 Under NASA’s Artemis exploration plan, the agency hopes to land the first woman and person of colour on the moon, and “establish the first long-term presence on the moon” at the Artemis base camp. It then wants to send astronauts to Mars.

15 The prime minister, Scott Morrison, will announce on Wednesday that the Australian-made “foundation services rover” would be part of a future lunar mission once developed.

“This is an incredible opportunity for Australia to succeed in the global space sector, and is central to our government’s vision to secure more jobs and a larger share of the growing space economy,” the prime minister said. “This mission to the moon is just one exciting way that we can create opportunity and jobs for the future.”

20 The semi-autonomous rover will be used to collect lunar soil, known as regolith, which contains oxygen in the form of oxides.

NASA wants to extract oxygen from the regolith in what it regards as “a key step” towards establishing a sustainable human presence on the moon and supporting its future missions to Mars.



25 The brief for the rover to support “foundation services” means it would underpin operational activities for “exploration missions to build towards a sustained off-earth presence and will ultimately support permanent outposts”.

Australian industry and research organisations will be able to apply for up to \$50m to develop the rover through the government’s Trailblazer program, potentially
30 supported by international partners.

The government says a key objective is to build Australian space industry capability and capacity so the investment would be focused in Australia, with the successful consortium expected to co-fund the project.

The rover will need to be capable of operating on the moon to collect and provide
35 lunar regolith to a NASA payload “with a high level of autonomy” – and weigh less than 20kg.

The head of the Australian space agency, Enrico Palermo, said the mission would draw on Australia’s “world-leading skills and experience” in remote operations and expertise in the resources and mining sector.

40 “Australia is at the cutting-edge of robotics technology and systems for remote operations, which are going to be central to setting up a sustainable presence on the moon and eventually supporting human exploration of Mars,” Palermo said.

“This agreement will leverage our expertise in remote operations to grow our space sector here at home, while developments that come from preparing for space will make
45 sure our resources sector keeps powering ahead too.”

The NASA administrator, Bill Nelson, said the agreement would strengthen the relationship between the United States and Australia in areas related to space exploration.

Sarah Martin, *The Guardian*, October 12th, 2021

