**Artemis I launch space WSJ *worksheet* video 6’**

**PAIRWORK: Student A (Intro+1) - Student B: (2+3+4+5)**

**Intro:**

1. **Goal**: …………………………………………………………………………………..
2. **Plan:** …………………………………………………………………………………..

**1) The 1st mission, Artemis 1**, **will send…**……………………………………………..

-***It will be a critical step towards*** ……………………………………………………

***Issues:*** ***But over the last few years NASA and its partners*** ……………………

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***Challenges (questions):*** ………………………………………………………………..

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***Vehicles:***

1. **-SLS**: rocket system that starts the journey………………………………….

**b) -Orion:** ……………………………………………………………………………..

1. **Artemis 1** : ……………………………………………………………………………….

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**d) Artemis 2** : ………………………………………………………………………………..

**e) Artemis 3 :** ………………………………………………………………………………..

***Other historic reasons:*** …………………………………………………………………………………..

***(2’10) 2)* Further details about Artemis 1:**

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**3) Delays:**

***The mission was originally scheduled to*** ……………………………………………….

***Causes:*** ………………………………………………………………….

**4) Cost:** …………………………………………………………………………………..

**5) More long-term ambitions** : Astronauts will live and work in deep space and will

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**Artemis I launch space WSJ video 6’**

**Intro:**

1. **Goal**: NASA has been gearing up to return astronauts to the Moon for the first time in more than half a century.
2. **plan:** The space agency plans to conduct the first launch of the massive rocket system for the moon exploration program: Artemis.

**1) The 1st mission, Artemis 1**, **will send** a spacecraft on an uncrewed trip around the moon.

-***It will be a critical step towards*** landing people on the moon by 2025.

***Issues:*** ***But over the last few years NASA and its partners*** have experienced a range of technical, legal and cost-related delays.

***Challenges (questions):*** So how does NASA plan to achieve this historic mission? How could Artemis 1 pave the way for future space exploration beyond the lunar surface?

***Vehicles:*** There are several key space vehicles involved in NASA’s efforts to get humans back on the moon.

1. **-SLS**: rocket system that starts the journey

 b) **-Orion:** separates from the rocket and then begins its journey

 -There will be  ***a separate lunar lander*** ***designed to*** take astronauts from lunar orbit down from the moon surface.

- ***That lander designed by SpaceX is expected to be*** used on a future Artemis launch currently planned for 2025.

**c) Artemis 1** will send the crew capsule into orbit around the moon for about 6 weeks, allowing NASA to test a series of critical systems, like life support for 4 equipped people on board.

**d) Artemis 2** will follow a similar path but with astronauts on board.

**e) Artemis 3** will carry people to the moon surface.

***Other historic reasons:*** NASA says this mission will be historic for other reasons as well: it’s opening the door for the first woman and the first person of colour to set foot on the moon.

***(2’10) 2)* Further details about Artemis 1:** Artemis 1 will serve as **a path finding mission**, **laying foundations for future trips to the moon**. It will also be the first test flight of NASA’s new space launch system mega rocket and the Orion crew capsule.

.Another key objective will be **testing the spacecraft’s heat shield**. It’s meant to protect the Orion capsule from the extreme temperatures it will encounter entering the atmosphere at Mach 32. **NASA will also be monitoring Orion’s navigation systems and its resilience to travel through high radiation areas.**

Another test will be recovering the spacecraft after its splash down in the ocean.

**3) Delays:** ***The mission was originally scheduled to*** take off in 2021

***Causes:*** technical challenges+ supply chain problems.

**4) Cost:** The first Artemis rocket and the broader Artemis program are expected to be costly. Last November NASA’s Inspector general forecast the agency to spend $93bn over more than a dozen years on Artemis with key cost for the first launch is expected to be around $4,bn..

**5) More long-term ambitions** : Astronauts will live and work in deep space and will develop the science and technology to send the first humans to Mars .

 -a multi-purpose outpost orbiting the moon

 -developing a basecamp on the lunar surface

 -prepare for future explorations of mars.