Callisto Space Innovation Tour

Quiz

Name _____ Class _____

Directions:

At each stop on the tour, answer all the comprehension questions.

Stop	Comprehension Question	Answer
Intro Watch this Tour Stop in: Video 1	**1.** What do you already know about the challenges astronauts face in deep space travel?	**A) Radiation, limited supplies, and isolation** B) Muscle and bone loss, communication delays, and psychological stress C) Equipment maintenance, food variety, and adapting to microgravity D) Navigation accuracy, sleep disruption, and managing energy resources
Getting to Space Watch this Tour Stop in: Video 2	**2.** How much liquid propellant (fuel) does the Space Launch System Rocket need to reach space? **3.** How long does it take for the Space Launch System to burn that fuel?	**2.** A) 735 gallons B) 7,350 gallons **C) 735,000 gallons** D) 7,350,000 gallons **3.** A) 3 minutes **B) 8 minutes** C) 25 minutes D) 10 hours
Getting to Space Watch this Tour Stop in: Video 3	**4.** Which of the following will NOT be a part of a payload in Artemis I? **5.** Satellites, crew members, science experiments, and equipment that fly onboard spacecraft are known as _____.	**4.** A) Satellites B) Seeds C) A moon rock **D) Musical instruments** **5.** **A) Payloads** B) Astronauts C) Manikins D) Propellant

Deep Space Communication Watch this Tour Stop in: Video 4	**6.** What is the farthest a spacecraft has communicated with Earth using the Deep Space Network?	A) 14 thousand miles B) 14 million miles C) 500 million miles **D) Over 14 billion miles**
Deep Space Communication Watch this Tour Stop in: Video 5	**7.** The 3 sites of the _____ are spaced out so no matter where Earth is in its rotation, spacecraft can communicate with Earth. **8.** Digital information is sent to spacecraft over the Deep Space Network as _____.	**7.** A) Near Space Network B) Artemis **C) Deep Space Network** D) Orion Spacecraft **8.** A) Sound waves B) Payloads C) Heat waves **D) Radio waves**
Deep Space Communication Watch this Tour Stop in: Video 6	**9.** How long does it take for a radio wave from Earth to reach a spacecraft near the moon?	**A) About 1 to 2 seconds** B) About 1 to 2 minutes C) About 1 to 2 hours D) About 1 to 2 days
Callisto Payload *Telemetry* Watch this Tour Stop in: Video 7	**10.** Which of the following telemetry data points will be accessible by the Callisto payload? **11.** How many total telemetry data points are available on Orion Flight Software?	**10.** A) Distance to the Moon B) Speed of the vehicle C) Remaining propellant (fuel) **D) All of the answers are correct.** **11.** **A) Over 10,000** B) About 1,000 C) About 5,000 D) About 100

Callisto Payload *Video Communication* Watch this Tour Stop in: Video 8a	**12.** What is the world record for amount of time a human has stayed in space? **13.** An engineer draws on the board a mission control but it doesn't show up on Callisto right away. This delay is called _____. **14.** Engineers had to design a solution for the limited _ (the amount of data that can transfer at a given time) in space. **15.** A _____ allows video to be compressed and decompressed to be able to be sent over the Deep Space Network.	**12.** A) 38 days (about 1 month) B) 117 days (about 4 months) C) 215 days (about 7 months) **D) 437 days (~1 year 2 months)** **13.** A) Bandwidth **B) Latency** C) Radiation D) Codecs **14.** **A) Bandwidth** B) Latency C) Radiation D) Codecs **15.** A) Bandwidth B) Latency C) Radiation **D) Codecs**
Callisto Payload *Video Communication* Watch this Tour Stop in: Video 8b	**16.** Which of the following words will NOT wake up Alexa?	A) Ziggy B) Alexa **C) Commander Moonikin Campos** D) Computer
Callisto Payload *Voice Artificial Intelligence* Watch this Tour Stop in: Video 9a	**17.** A student asks their device "Alexa, tell me a space fact." The full sentence they spoke is called _____.	A) An intent B) A bandwidth **C) An utterance** D) A wake word

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