Lesson Glossary

Apollo

- NASA program which succeeded in preparing and landing the first humans on the moon.¹

Artemis

- NASA's campaign aimed at exploring the moon for scientific discovery and technology advancement.²

Calisthenics

- A form of strength training exercise using only a person's body weight and requiring little to no equipment.³

Constellation

 A group of stars forming a recognizable pattern traditionally named after a mythological figure.⁴

Drop tower

- A structure used to produce a controlled period of weightlessness for an object.⁵

Fundamental frequency

- The first harmonic.⁶

Golden Record

- A phonograph record containing sounds and images portraying life on Earth carried into space by Voyager 1 and 2.⁷

Gravity

- The universal force of attraction acting between all matter.⁸

Harmonics

- a wave or signal with a frequency that is an integer multiple of the same reference signal or wave.⁶

Interference

- The result of two or more waves meeting while moving along the same medium. This results in the addition of the individual waves' amplitudes, leading to a higher or lower final amplitude depending on whether or not the waves are in or out of phase.^{9, 10}

Intonation

- Accuracy of pitch, how well a pitch is in tune.

ISS

- International Space Station, an orbiting space station used for scientific and space research.¹¹

ISS archaeology

- An archaeological study of the International Space Station.¹²

Kundt's Tube

- An experimental acoustical apparatus useful for visualizing standing waves in a gas as well as demonstrating acoustical forces.¹³

Max Q

- A Houston-based rock band formed in early 1987 composed entirely of astronauts.¹⁷

Microgravity

- The condition when the force of gravity is very weak, leading to people or objects to appear weightless.¹⁴

Mission patch

Unique patches created for every space flight worn by the astronaut crew.
Mission patches include the mission number, the vehicle used, names of the crew, and visual elements representing the mission.¹⁵

Parabola

Symmetrical open plane curve movement, essentially the path of a projectile under the influence of gravity.

Parabolic Plane // Parabolic Flight

 Aircraft that produces gravity-free conditions in upward and downward flight patterns. Flights that produce gravity-free conditions in an aircraft, alternating upward and downward arcs interspersed with level flights.

Sound

- Disturbance of matter transmitted from its source outward, often taking the form of a periodic wave (sound wave), during which atoms undergo simple harmonic motion.¹⁰

Voyager spacecraft

- Twin spacecrafts (Voyager 1 and 2) exploring interstellar space and the outermost edge of the Sun's domain.¹⁶

Zero-g

- Weightlessness, zero-apparent weight (although g-forces are never exactly zero).¹⁴
- 1. https://www.nasa.gov/the-apollo-program/
- 2. https://www.nasa.gov/the-apollo-program/
- 3. https://en.wikipedia.org/wiki/Calisthenics
- 4. https://www.britannica.com/science/constellation
- 5.<u>https://en.wikipedia.org/wiki/Drop_tube#:~:text=In%20physics%20and%20materials%20science,fall%20of%20the%</u> 20experimental%20payload.
- 6. https://en.wikipedia.org/wiki/Harmonic
- 7. https://voyager.jpl.nasa.gov/golden-record/
- 8. <u>https://www.britannica.com/science/gravity-physics</u>
- 9. https://www.physicsclassroom.com/class/waves/Lesson-3/Interference-of-Waves
- 10.https://phys.libretexts.org/Bookshelves/University_Physics/University_Physics_(OpenStax)/Book%3A_University_
- Physics_L-_Mechanics_Sound_Oscillations_and_Waves_(OpenStax)/17%3A_Sound/17.02%3A_Sound_Waves
- 11. https://en.wikipedia.org/wiki/International_Space_Station

12.https://issarchaeology.org/about/#:~:text=Our%20project%2C%20initiated%20in%202015.in%20the%20ISS's%20u nique%20context.

13.<u>https://diverdi.colostate.edu/C477/experiments/heat_capacity_ratio_of_gases/references/kundt's%20tube%20-%2</u> 0wikipedia.pdf

- 14. https://en.wikipedia.org/wiki/Weightlessness
- 15. https://drive.google.com/file/d/1kC-FykZU_U-Uzq3I4rSQeeZexevJVdBf/view
- 16. https://voyager.jpl.nasa.gov/
- 17. https://en.wikipedia.org/wiki/Max 0 (astronaut band)

