

Orientation Bingo – Missions Terminology

- following the Orientation starter activity, issue the Missions Terminology Definitions sheet to students
- read through and allow an appropriate amount of time for them to become familiar with the terminology
- issue blank bingo cards to students
- display Missions Terminology on the whiteboard
- students complete their bingo card by entering nine terms of their choice – one per box
- play Orientation Bingo
 - read the definitions out randomly – keeping an accurate record (students do not have the definitions to hand)
 - students mark-off each term on their card as they recognise it from the definition
 - students are to play for a line first – 3 in a row (horizontal, vertical, diagonal)
 - check winning lines
 - students continue to play for a full house – all 9 terms must match to win
 - reward students as appropriate for your class/school. For example, house points!

Additional Suggestions

- issue the Missions Terminology Definitions sheet prior to the Orientation starter activity/learning episode
- interrupt the orientation starter activity to play bingo – between ESOC and Mars Horizon video clips
- allow students to work in pairs
- limit the initial choice of terms

Missions Terminology						
International Space Station	affirmative	flight dynamics	satellite	simulation	condition red	launch
Earth orbit	lunar orbit	NASA	injection burn	solar flare	blackout	critical phase
navigation	system operators	rocket	ozone hole	tracking	TGO	space telescopes
comet	high resolution images	Solar Orbiter	heliosphere	polar regions	MCR	planetary rover
stellar explosions	stationary orbit	velocity	flight data	weather satellite	4th floor	system status check

Name _____

Date _____

Class _____

Missions Terminology						
<p>International Space Station – a modular space station in low Earth orbit (1st floor orbit)</p>	<p>affirmative – agreeing with a statement or consenting to/ accepting a request</p>	<p>flight dynamics – the study of the performance, stability and control of vehicles in the air or in outer space</p>	<p>satellite – an object that has deliberately been placed into orbit. They can measure planets, comets, weather and tele-communications</p>	<p>simulation – a computer model of space flight used for the purpose of study and learning</p>	<p>condition red – a serious problem has occurred and immediate action needs to be taken</p>	<p>launch – the action of setting something in motion. In this case, a rocket</p>
<p>Earth orbit – a regular, repeating path that an object takes around the Earth</p>	<p>lunar orbit – a regular, repeating path that an object takes around the Moon</p>	<p>NASA – the acronym for the National Aeronautics and Space Administration</p>	<p>injection burn – the process of forcing fuel into the engine to increase speed and power</p>	<p>solar flare – a sudden flash of increased brightness on the Sun. They have been known to interrupt satellite communications</p>	<p>blackout – a total lack of radio communications with a satellite or spacecraft</p>	<p>critical phase – any point in the mission which requires the full attention of the system operators</p>
<p>navigation – the process of accurately planning and following a route for the satellite or other spacecraft</p>	<p>System Operators – groups of people who are charged with tracking satellites and monitoring space flight operations</p>	<p>rocket – a cylindrical projectile that can be propelled to a great height or distance. Satellites and spacecraft travel up into space on this</p>	<p>ozone hole – a gap in the Ozone Layer due to global warming – most particularly a mix of chemicals which cause damage to the Ozone Layer</p>	<p>tracking – monitoring the journey and progress of satellites as they revolve in orbit</p>	<p>TGO – a satellite that is currently taking pictures of Mars and transmitting the images back to Earth</p>	<p>space telescopes – a telescope that operates in space by remote control to observe distant planets and galaxies</p>
<p>comet – an object in which scientists believe the building blocks of life are stored. They often contain ice</p>	<p>high resolution images – images sent from satellites to Earth which contain a lot of detail and a lot of pixels</p>	<p>Solar Orbiter – the Sun-observing satellite, developed by the European Space Agency</p>	<p>heliosphere – a vast, bubble-like region of space that surrounds and is created by the Sun</p>	<p>polar regions – the Northern-most and Southern-most parts of a planet</p>	<p>MCR – the initialism for Mission Control Room</p>	<p>planetary rover – an exploration device designed to move across the solid surface of a planet</p>
<p>stellar explosions – supernovas which produce extremely bright objects made of plasma</p>	<p>stationary orbit – an orbiting satellite or spacecraft which remains over the same spot on the surface. It appears to be standing still</p>	<p>velocity – a measure of how fast something is moving in a particular direction</p>	<p>flight data – the recording of all information from a spacecraft or satellite. This allows mission control to monitor progress and improve future missions</p>	<p>weather satellite – a satellite which monitors the weather and climate on Earth</p>	<p>4th floor – over 500 satellites are located here</p>	<p>system status check – the process where system operators perform checks to determine if a particular action was successful</p>

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