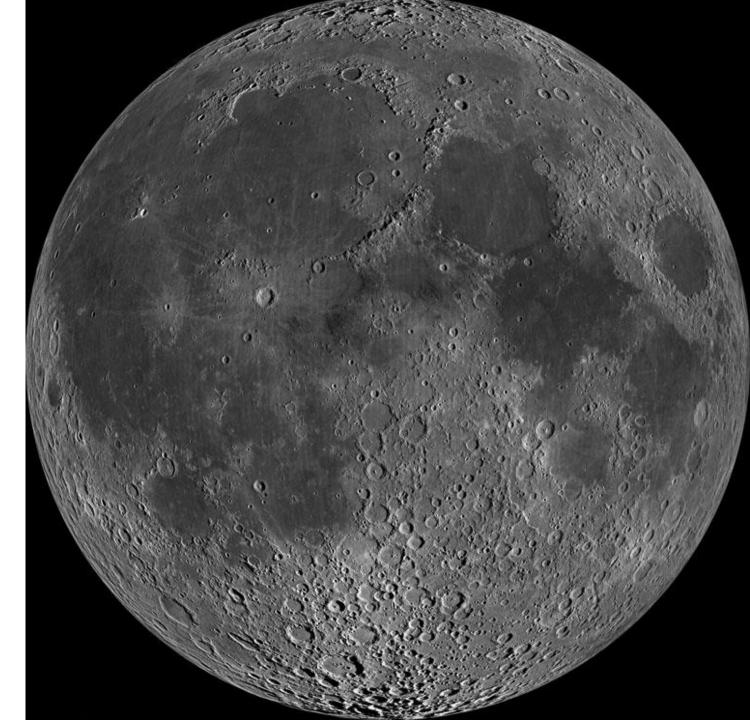
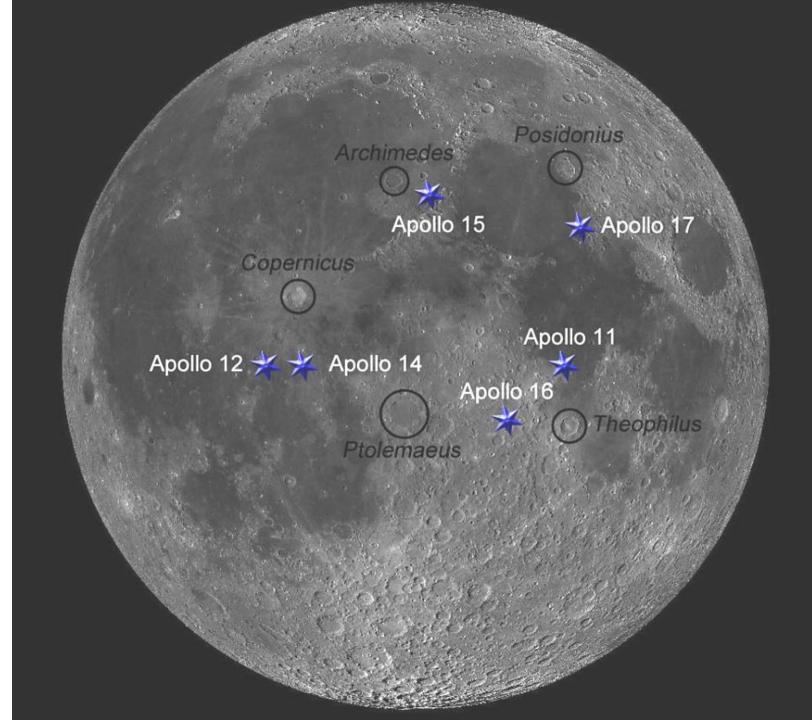


Quiz station

1. Where did the Eagle land?



<u>Tranquility</u> <u>Base</u>



2. Which of these were a direct <u>spin-off</u> from space research?

| Scratch-resistant lenses | Disc brakes |
|----------------------------------|-------------------|
| Catalytic converter | Freeze dried food |
| The computer mouse | CAT Scanners |
| Handheld battery vacuum cleaners | Foil blankets |
| Wireless headsets | Tetra Pak cartons |

| Scratch-Resistant Lenses The Lewis Research Centre attempted to develop diamond-hard coatings for aerospace systems, later creating a technique that was developed and patented for just that purpose. | Development of disc-type brakes began in England in the 1890s |
|--|--|
| The first catalytic converter was developed around 1950 for use in smoke stacks. It was invented by the French engineer Eugene Houdry. However, widespread use of the catalytic converter in cars began only in 1975, when regulations restricting air pollution produced by automobiles were introduced Computer Mouse In the 1960s a NASA researcher was trying to make computers more interactive when an idea was suggested about how best to manipulate data on a computer screen, leading to the mouse. | Freeze Dried Food NASA conducted extensive research into space food; one technique they developed was freeze drying, which retains 98% of the nutrients and weighs only 20% of the original weight. CAT Scans A space program needs a pretty good digital image, the JPL played a lead role in developing this technology, which in turn helped create CAT scanners and radiography. |
| Dust Busters | Foil Blankets |
| NASA approached Black & Decker to develop a lightweight device to collect samples on the moon. The company then used this technology to create the Dustbuster in 1979. | These metallic sheets, which are now used on Earth in extreme temperatures, evolved from a lightweight insulator NASA developed to protect spacecraft and people in space. |
| Wireless Headsets NASA, being one of the forerunners for advancing communication technology, developed these headsets to allow astronauts to be hands-free without wires. | 1951 AB Tetra Pak is established in Lund Sweden, by Ruben Rausing. It starts as a subsidiary of Åkerlund & Rausing. On May 18, the new packaging system is presented to the press and attracts great attention |

3. How much rock from the Moon did <u>all</u> the Apollo missions bring back to Earth?



| * * * * * * * * * | |
|-------------------|--|
| **** | |
| * * * * * * * * * | |
| **** | |
| * * * * * * * * * | |
| ***** | |
| * * * * * * * * * | |

3.

• <u>380.95 kg</u>

• (840 lbs)

| Mission | Sample mass returned ^[18] | Year |
|-----------|---|------|
| Apollo 11 | 21.55 kg (47.51 lb) | 1969 |
| Apollo 12 | 34.30 kg (75.62 lb) | 1969 |
| Apollo 14 | 42.80 kg (94.35 lb) | 1971 |
| Apollo 15 | 76.70 kg (169.10 lb) | 1971 |
| Apollo 16 | 95.20 kg (209.89 lb) | 1972 |
| Apollo 17 | 110.40 kg (243.40 lb) | 1972 |

4. How much rock from the Moon did <u>all</u> the Soviet Union missions bring back to Earth?





• <u>301 g</u>

(0.66 lbs)
 (10.6 oz)

| Luna 16 | 101 g |
|---------|-------|
| Luna 20 | 30 g |
| Luna 24 | 170 g |

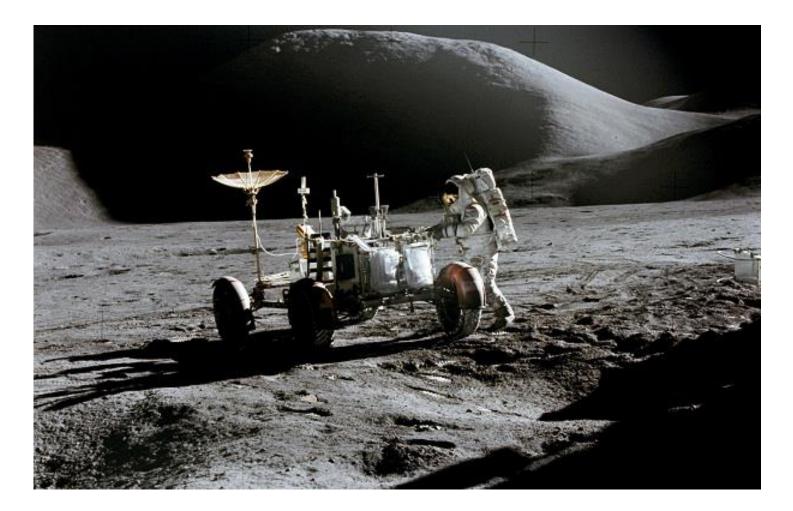
5. Buzz Aldrin's mother's maiden name was?

| Herschel | Collins |
|-----------|---------|
| Dawson | Eagle |
| Moon | Kennedy |
| Armstrong | Apollo |
| Aldrin | Galilei |

5. Buzz Aldrin's mother's maiden name was?

| Marion Moon | |
|-------------|--|
| | |
| | |

6. Which Apollo mission took the first Moon Buggy (<u>Lunar Roving Vehicle</u>)?



6. Which Apollo mission took the first Moon Buggy (<u>Lunar Roving Vehicle</u>)??

| Apollo 11 [1969] | Eagle has landed | | |
|------------------|---|--|--|
| Apollo 12 [1969] | Precise Moon landing | | |
| Apollo 13 [1970] | Returned to Earth due to emergency | | |
| Apollo 14 [1971] | First colour TV images from lunar surface | | |
| Apollo 15 [1971] | Moon Buggy. Three day stay on surface | | |
| Apollo 16 [1972] | Moon Buggy | | |
| Apollo 17 [1972] | Moon Buggy. First geologist on the Moon | | |

7. Who is this? What is he famous for and when did he do it? When did he die?



7. Who is this? What is he famous for and when did he do it? When did he die?

- Yuri Gagarin
- First man in space (aged 27)
- 12th April 1961 (aboard Vostok 1)
 - Maximum altitude of 187 miles
 - Orbited the Earth in 89 minutes
 - Flight lasted 1 hour 48 minutes
- Died in plane crash on 27th March 1968

8. How many men walked on the Moon, and how many are alive now?



8. How many <u>men walked on the Moon</u>, and how many are alive now?

| Name | Apollo Mission | Born | Died |
|------------------|----------------|--------------------|-----------------------------|
| Neil Armstrong | Apollo 11 | August 5, 1930 | August 25, 2012 (aged 82) |
| Buzz Aldrin | Apollo 11 | January 20, 1930 | Age 89 |
| Pete Conrad | Apollo 12 | June 2, 1930 | July 8, 1999 (aged 69) |
| Alan Bean | Apollo 12 | March 15, 1932 | May 26, 2018 (aged 86) |
| Alan Shepard | Apollo 14 | November 18, 1923 | July 21, 1998 (aged 74) |
| Edgar Mitchell | Apollo 14 | September 17, 1930 | February 4, 2016 (aged 85) |
| David Scott | Apollo 15 | June 6, 1932 | Age 87 |
| James Irwin | Apollo 15 | March 17, 1930 | September 8, 1991 (aged 61) |
| John Young | Apollo 16 | September 24, 1930 | January 5, 2018 (aged 87) |
| Charles Duke | Apollo 16 | October 3, 1935 | Age 83 |
| Gene Cernan | Apollo 17 | March 14, 1934 | January 16, 2017 (aged 82) |
| Harrison Schmitt | Apollo 17 | July 3, 1935 | Age 84 |

9. Many man-made probes have orbited our moon, but how many are still orbiting?



9. Many man-made probes have now orbited our moon, but how many are still orbiting?

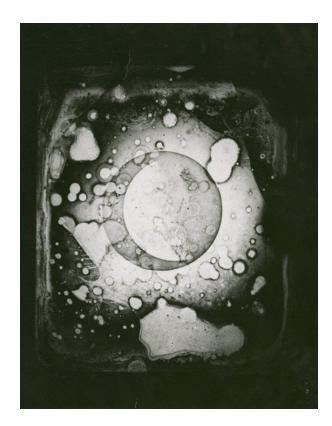
| Orbiter | Country | Orbital insertion | Activity |
|---|---------|-------------------|---|
| <u>Lunar</u> <u>Reconnaissance</u> <u>Orbiter</u> | USA | 23 June 2009 | Surface mapping |
| ARTEMIS P1* | USA | 2 July 2011 | Study energy releases from <u>Earth</u> 's <u>magnetosphere</u> known as <u>substorms</u> , |
| ARTEMIS P2* | USA | 17 July 2011 | magnetic phenomena that intensify <u>auroras</u> near Earth's poles |
| Chang'e 5-T1 | PRC | 13 January 2015 | Service module for Chang'e 5 mission |

*Acceleration, Reconnection, Turbulence and Electrodynamics of the Moon's Interaction with the Sun

10. There was about 119 years between the first photograph of the near side of the moon being taken and the first photograph of the far side of the moon being taken. What years were these two photographs taken?

10. Photographs of the Moon

- John W Draper (New York)
- 26th March 1840



- <u>Luna 3</u>
- 7th October 1959

