
ARE FRONTIER LARGE LANGUAGE MODELS SUITABLE FOR Q&A IN SCIENCE CENTRES? (ADDITIONAL MATERIAL)

1 Questions Collected at the Science Centre

Category	Questions
Space Crew Feedback	<p>Are the lights on the ISS LEDS or are they traditional bulbs?</p> <p>What is the weight/mass of the piece of the moon?</p> <p>Was the moon rock analyzed on what type of rock it is, is it volcanic?</p> <p>Why is planet Earth where it is?</p> <p>Where was Black Arrow launched from?</p> <p>Why was this centre built here?</p> <p>Why have we not gone back to the moon?</p> <p>Is there water on the moon and Mars, and why is it important?</p> <p>Are we going to build a replacement ISS to the current one?</p> <p>Is the city in the timelapse projected in 'Home Planet' based on a real city?</p> <p>Are the rocks on the 'Rock Table' naturally made or man-made?</p> <p>Why is Saturn in the bathtub in our Solar System Gallery?</p> <p>How far away is the Moon from Earth?</p> <p>Does the Sun orbit the Earth and is it projected?</p> <p>How does the Sun not move and how does it keep us rotating?</p> <p>What is Space? Where does Space start and end?</p> <p>Are the two rockets shown in the rocket tower real?</p> <p>What role does the UK have in current Space missions and in the Space industry?</p> <p>Is the Earth flat?</p> <p>Does the UK have its own fleet of rocket systems to send people into space?</p> <p>What are the latest instruments sent into space by this University?</p> <p>How easy is it to become an astronaut?</p> <p>Can visitors go into space from this science centre?</p> <p>How big is the moon?</p> <p>What are the sparkly bits in the piece of the Moon?</p> <p>What is the size of the planets in relation to one another?</p> <p>Why are some planets big and gassy while others are small and rocky?</p> <p>Do other planets have a core?</p> <p>Can you surf on the rings of Neptune like in the movie *Ad Astra*?</p>

Are Frontier Large Language Models Suitable for Q&A in Science Centres?

Category	Questions
Space Staff Feedback	What is this science centre built from? What is this? Does it cost anything? Will I be waiting 25 minutes? Is it like the planetarium show? Why haven't we been back to the Moon since Apollo? How was this science centre built? Where/what is my show? What is a black hole and how is it made? Same for white holes. How they got the rockets inside the science centre? What here has actually been to space? Why are the constellations what they are? Some questions about the James Webb telescope.

Category	Questions
Ask-the-Expert Questions	<p>What makes the rockets go up into space?</p> <p>What does it feel like when you blast off?</p> <p>What does it feel like when you land?</p> <p>What training is needed to become an astronaut?</p> <p>Why do astronauts float?</p> <p>How small are the dwarf planets Eris and Pluto?</p> <p>What food do astronauts eat in space? How do astronauts eat in space?</p> <p>What does an astronaut kitchen look like?</p> <p>Why do they eat dried, hard strawberries and not fresh juicy ones?</p> <p>How do astronauts drink in space?</p> <p>How do astronauts have a bath?</p> <p>Why do they have a seatbelt on to sleep?</p> <p>How do you keep fit and healthy in space?</p> <p>Why do astronauts wear a helmet? How warm is it in space?</p> <p>What does the wire do linked to an astronaut when they are out of the space craft?</p> <p>What can you see out of the window in space?</p> <p>What is life like in space?</p> <p>How was space created?</p> <p>What is the lifespan of a star?</p> <p>What are nebulas and what are they made of?</p> <p>What is your favorite thing about space?</p> <p>How are black holes created?</p> <p>What happens if you enter a black hole?</p> <p>Are you aware of any life in space?</p> <p>Is there another planet out of the solar system that has a magnetic field?</p> <p>Do any planets have active volcanoes?</p> <p>What is the coldest planet?</p> <p>Do you think we will ever live on Mars?</p> <p>Is there a reason why people have gone to Mars but not Venus?</p> <p>What's the pressure like in space? Is it similar to the ocean?</p> <p>Why does space not have gravity like Earth?</p> <p>Is there internet in space? Can you play video games?</p> <p>Do you know anyone who went to space?</p> <p>How do astronauts exercise in their ships?</p> <p>Is food good in space? What do astronauts eat?</p> <p>How do you poop in space and what do you do with the remains?</p> <p>Do you get younger in space?</p> <p>What made you interested in space?</p> <p>Do you get the internet in space?</p> <p>In space, how do you get medical attention?</p> <p>How does it feel in space and how does it feel when you return?</p> <p>Why does NASA study the ocean?</p> <p>What asteroids have hit Earth?</p> <p>What temperature is the sun and what is it made of?</p> <p>How many stars are in space?</p> <p>How does a black hole work and could you get close to one?</p> <p>Why was Pluto changed to a dwarf planet?</p> <p>How is the atmosphere formed?</p> <p>Are we able to live on another planet?</p> <p>When will we go to Mars and how long would it take to get there?</p> <p>What is the purpose of the golden disc on Voyager 1?</p> <p>What would happen if you found extra-terrestrial life?</p> <p>What is the most beautiful thing you can see in space?</p> <p>How long does it take to get to space?</p> <p>What does it feel like in the rocket? Is it comfortable?</p> <p>How many people can fit into the rocket? / On the ISS?</p> <p>How do you steer / navigate the rocket?</p>

Category	Questions
Ask-the-Expert Questions	<p>What kind of special training do you have to do?</p> <p>How long can you stay in space for at one time?</p> <p>Where and how do you sleep—what is it like?</p> <p>What do you eat and drink and how?</p> <p>How does it feel inside the space suit?</p> <p>How much oxygen do you have in your spacesuit?</p> <p>Does it feel cold up in space?</p> <p>What sort of experiments do you do?</p> <p>What is it like looking at outer space / in orbit—what can you see?</p> <p>Can you space walk on different planets?</p> <p>How do you keep clean in space?</p> <p>How do you go to the toilet in space?</p> <p>How do you stay in touch with people back on Earth?</p> <p>Is it a hard job to do?</p> <p>What is it like to be an astronaut?</p> <p>Why do you choose to go to space?</p> <p>How does a rocket work?</p> <p>How long does it take to get to space?</p> <p>What training do you need to do to be an astronaut?</p> <p>How do you become an astronaut?</p> <p>Why do you float in space?</p> <p>How long are you in space for?</p> <p>What do you wear in space?</p> <p>What do astronauts eat in space?</p> <p>What is a black hole?</p> <p>Which planets have you seen?</p> <p>What does the Earth look like from space?</p> <p>How do you have a shower in space?</p> <p>How do you go to the toilet in space?</p> <p>Where do you sleep in the rocket?</p> <p>Is it scary in space?</p> <p>Why does the Moon sometimes look bigger or smaller?</p> <p>Is there always someone in space?</p> <p>What powers the International Space Station?</p> <p>Is there lots of rubbish in space and is this a problem?</p> <p>What happens if you are in space without protective gear?</p> <p>Are there medical conditions associated with space travel?</p> <p>What makes space so cold?</p> <p>When is space considered space and not the sky?</p> <p>What is a black hole?</p> <p>How environment-friendly is space travel?</p> <p>How much does one rocket launch cost?</p> <p>How close are we to a flight to Mars?</p> <p>How do you go to the toilet and keep clean in space?</p> <p>What is the strangest thing about being in space?</p> <p>How do astronauts entertain themselves?</p>

Table 1: Visitors questions.