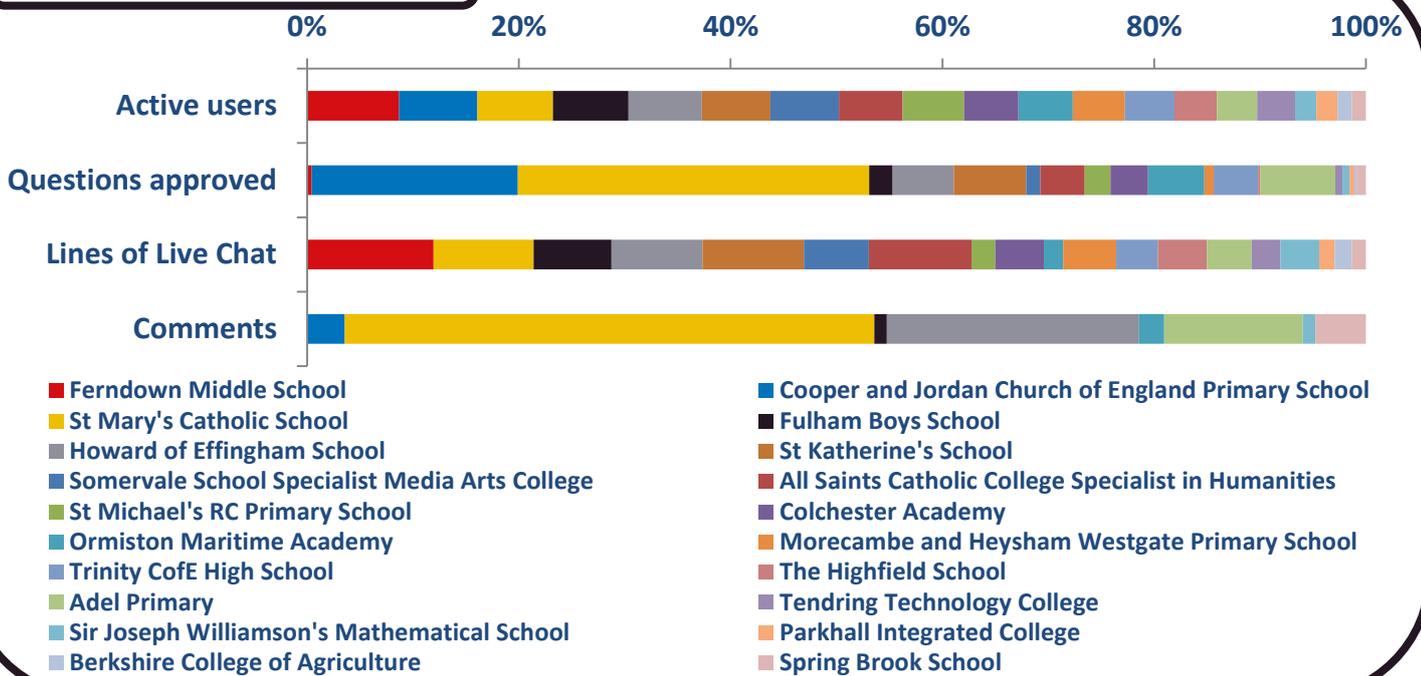


June 2016

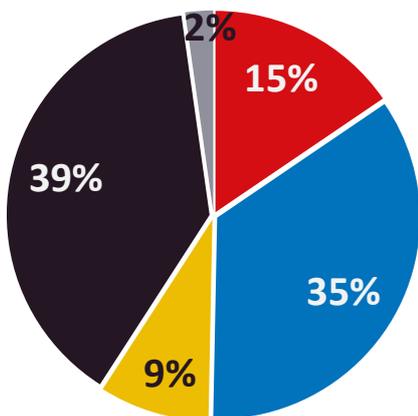
The Touchdown Zone was the fourth round of *I'm an Astronaut* funded by the UK Space Agency's Principia grant scheme and took place at the end of Tim Peake's mission on the International Space Station. The Astro Support Team was made up of Vinita, a Space Operations Engineer at the European Space Agency, Kirsty, a PhD student researching how to keep astronauts' backs healthy, Col Ops, who were a team of flight directors and ground controllers for the ISS, Charlie, a space physiologist and Andrea who is a Eurocomm for the ISS. As Tim Peake returned to Earth halfway through the event, there was a lot of discussion about his time on board the space station and what life will be like for him after he lands. This zone had the highest amount of questions approved out of all four *I'm an Astronaut* events, with 452 asked during the two weeks.

School data at a glance

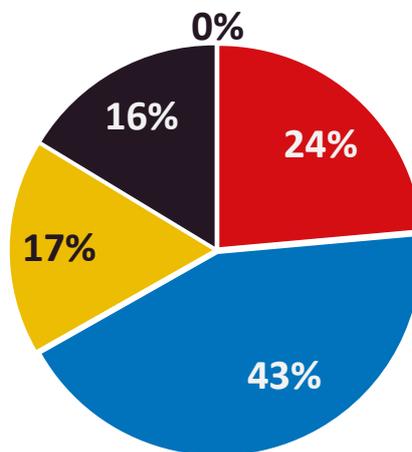


Team activity

Answers



Live Chat



| Astro Team Member | Profile views | Position |
|-------------------|---------------|----------|
| Charlie Laing | 1,212 | Winner |
| Kirsty Lindsay | 839 | 2nd |
| Col Ops | 615 | 3rd |
| Andrea Boyd | 618 | 4th |
| Vinita Marwaha | 634 | 5th |

Key figures from the Touchdown Zone in comparison to other zones

| Page views | TOUCHDOWN ZONE | IAA AVERAGE | IAS JUNE AVERAGE | | TOUCHDOWN ZONE | IAA AVERAGE | IAS 2012-16 AVERAGE |
|------------|----------------|-------------|------------------|---|----------------|-------------|---------------------|
| Total | 33,783 | 31,293 | 21,638 | Schools | 20 | 22 | 10 |
| ASK | 2,753 | 2,563 | 1,582 | Students logged in | 510 | 501 | 364 |
| CHAT | 4,304 | 3,462 | 2,737 | % of students active in ASK, CHAT or VOTE | 88% | 86% | 85% |
| VOTE | 2,040 | 1,836 | 1,369 | Questions asked | 1,171 | 1,130 | 704 |
| | | | | Questions approved | 452 | 407 | 303 |
| | | | | Answers given | 809 | 646 | 554 |
| | | | | Comments | 113 | 121 | 79 |
| | | | | Votes | 434 | 394 | 288 |
| | | | | Lines of live chat | 7,179 | 7,838 | 5,049 |
| | | | | Live chats | 23 | 21 | 15 |
| | | | | Average lines of live chat | 312 | 369 | 329 |

Popular topics

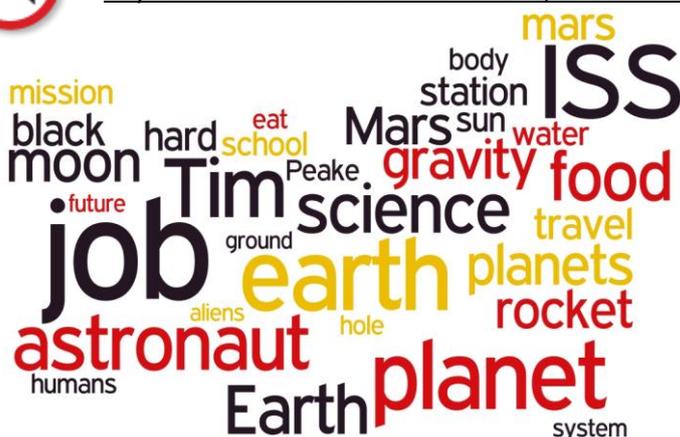
One of the most popular topics within the zone was Tim Peake and his work on board the ISS, with students aware that he had completed his six month mission. They asked about preparations he was making before returning to earth, what had to happen when he landed to keep him healthy, and how long it would be until he could see his family and return home. They also asked about what the ESA has planned to do next, after Tim's mission is over. There were lots of questions about space travel in general, the conditions astronauts have to live in and what happens when they want to do day to day things like wash their clothes, watch TV or style their hair.

Students had read the AST's profiles and were curious about specific things they had read. For example, Vinita was asked about the materials she had used to make space suits and the robotic arm she is developing. Kirsty was asked about her work with astronaut's backs and how long Tim's body will take to recover, and also why she chose to work with astronauts instead of doctors and patients in a hospital.

During the event the EU Referendum took place, and a few students showed an awareness of this with questions about how the ESA would be affected now that the UK had voted to leave the EU.



Keywords from live chats in the zone, size of the word represents its popularity



Above is the word 'space' compared to the other keywords from the live chats.



Keywords of questions approved in the zone, length of bar represents frequency of use

0 2 4 6 8 10 12 14 16 18 20 22

Tim Peake
ISS **Example**
Questions
(click for links)

Earth
spacesuit
space

astronaut
time
food

rocket
planet
job

zero gravity
star

black hole
landing
space travel

moon
speed

work
mars

“Where is the rocket that Tim Peake went to the space station in?”

“Should we be worried about creating a black hole?”

“What is your favourite space gadget, and why?”

“Is there anything specific Tim will be doing on his last day on the ISS?”

“Did Tim Peake smell when he came back from space because he probably hadn't had a shower or bath for 6 months?”

“What happens to the space industry now we've left the EU? Can we still be a member of the ESA?”

“When you eat food and water will it float in your stomach?”

“Do you think the vast amount of active and abandoned robots in space could cause a problem or threat?”

“What will the robotic arm you are working on be used for? Also how expensive was it to make?”

“How is light able to travel through space despite there being no mass or particles?”

“Is there a time of a day that is good to go to space or is it just go rain or shine?”

“Is the light from a supernova dangerous?”

“How would you go about designing a spacesuit for a journey to Mars?”

“What is the limit for the amount of time a human can spend in space?”

“Do you think Space travel/the ISS can be used to improve international relations?”

Examples of good engagement

Students had lots of questions about conditions on board the ISS, and the Astro Support Team were great at describing what life is like for astronauts who are working there using analogies students could relate to and understand. This made for some interesting conversation within the chats and ASK section.

“Is taste any different on board the ISS?” – Student

“Yes because your tongue swells so you taste things differently and not as strong. Astronauts add various condiments like salt and pepper and sauce to enhance the flavours of food and we make spacefood with more intense flavour that you would if it was Earth food.” – Andrea

“When astronauts go into space blood moves up towards their head giving them the feeling of a ‘stuffy nose’. In a similar way to not being able to taste when you have a cold, the astronauts struggle to get the full flavours of their food. Astronauts like to add lots of salt to their food and some have a preference for spicy meals. Lots of salt can be unhealthy so we need to look at other ways of making space food tastier if we are going to be spending longer in space!” – Charlie

“Imagine how funny food tastes on a plane, if you had a cold- space food sort of tastes like that.” – Kirsty

“Cooool! Does their diet change once they’re home?” – Student

“Astronauts tend to eat very healthy anyway but as soon as they come back from space their diets will continue to be controlled. That means everything they eat and drink will be controlled and recorded. Don’t worry though I’m sure Tim Peake will soon have time for a few treats such as a beer and pizz.” – Charlie

Astro Support Team winner: Charlie Laing

Charlie’s plans for the prize money: *“I would use the money to host a live tour for selected pupil of :envihab including our centrifuge, astronaut laboratories and the European Astronaut Center. Also, I want to send the winning schools some astronaut food to taste!”* Read Charlie’s [thank you message](#).



Student Winner: Y.Hashie, Colchester Academy

For great engagement during the event, this student will receive a certificate and will be part of the live chat with Tim Peake.

There was an article in the school’s local newspaper, where the student said: *“I feel pretty excited actually about getting to chat with him. I’m not sure what I will ask yet but I’m going to make sure I write it down so I don’t forget. We spoke about him quite a lot in class. I’m quite interested in science and I would say it is in my top five subjects which we do at school. I would love to go to space because I think it would be so exciting to go all the way up there and float!”* – **Daily Gazette, Essex Country Standard**

School Winner: St Michael’s RC Primary School

St Michael’s RC Primary School were nominated by the members of the Astro Support Team to be part of the live chat with Tim Peake.

Feedback

We’re still collecting feedback from teachers, students and the Astro Support Team but here are a few of the comments made during the event...

“It has been brilliant we have all loved this experience thank you so much!” – Student

“We would like to say a HUGE thank you! Everyone has thoroughly enjoyed the afternoon - what an opportunity!” – Teacher