

Tim Peake Challenges

Read the space facts sheet. Tim Peake is a British astronaut who went to space for a six-month mission. He lived in isolation with only a few other people on an International Space Station.

Here are 3 activities I thought you would be able to have a go at home.

Quest: spacewalk relay

1. When Tim Peake got to the ISS he had to move around in low gravity, which feels very different to walking on Earth. Astronauts coordinate their hands, arms, and feet to push and pull themselves from one place to another without floating away. The bear crawl and crab walk increases muscle strength and improves upper and lower body coordination.
2. Everyone should try the bear crawl. They should walk on all fours facing down. They should move diagonally opposite feet and hands at the same time – for example they should move their left hand and right foot forward at the same time, and then move their right hand and their left foot together.
3. Everyone should try the crab walk. They should sit with their bottoms on the floor and their feet flat on the floor in front of them. They should put their hands behind them, bend their knees, and push with their hands and feet to lift their bottom off the floor. They should move their hands and feet together in diagonal opposites (like in the bear crawl; left hand and right foot then right hand and left foot) to scuttle backwards.
4. Create a challenge course to bear crawl and crab walk through. See if you can challenge other people in your house. When the first player returns, the second player should go, and so on until everyone's had a turn.
5. You could time each player to see how fast they can finish the course.

Kibo: cosmic communication

1. ISS uses two official languages to communicate with mission control – English and Russian. All new astronauts heading to the ISS travel in the Russian Soyuz rocket, so they need to know some Russian and some English. Tim Peake says this was the hardest part of his training; he doesn't find learning languages easy.
2. Everyone should look at the Russian alphabet sheet and have a go at making the sounds.
3. Everyone should work together to sound out all of the Russian words and match them to their English translations.
4. Once they've matched the words, everyone should try to write their name using the Russian alphabet (Cyrillic).

Canadarm2

1. Canadarm2 is a robotic arm that's used to move cargo and help with maintenance.
2. Canadarm2 is made of millions of pounds of robotics, but at this base the group should use two poles (used like chopsticks) to make a robot arm.
3. Choose one person to be blindfolded and work the robotic arm.
4. The helper at the station should put some small items like small balls, empty bottles, and small boxes around the floor.
5. Direct your blindfolded partner to use the robotic arm to pick up all of the small items