

TRAIN LIKE AN ASTRONAUT:

Mission Assignment: Crew Assembly!



Astronauts go through rigorous training to prepare for a mission. Many team members work together to train astronauts for the challenges of space. Teamwork is essential!

Astronauts are required to assemble devices on the International Space Station (ISS) and satellites need repairs. Assembly and maintenance in space requires astronauts to have good dexterity and hand-eye coordination.

While in space astronauts must be able to manipulate tools and objects while wearing a pressurized spacesuit which includes gloves that completely cover their hands. These thick bulky gloves are worn to protect astronauts from the brutal space environment.

As astronauts practice manipulating tools quickly and accurately in their spacesuits, they are improving their dexterity and hand-eye coordination for a space mission.

Follow these instructions to train like an astronaut!

You team's goal is to complete your puzzle and reveal the hidden word before the other teams. Assembling a puzzle quickly and correctly will help you understand the importance of dexterity, hand-eye coordination and communication - essential skills for an astronaut!

1. For this activity you will be working in teams. Select your crew name (choose something related to space) and write the word in large letter across your blank jigsaw. Add some pictures of objects related to the word.
2. Now separate the pieces of your jigsaw puzzle and shuffle them.
3. Carefully gather all the pieces of your puzzle - make sure you don't miss any!
4. Swap the piece of your puzzle with another team.
5. Choose a time keeper. They will use the stopwatch to time the puzzle construction from start to finish.
6. When the time keeper says 'Go!' they will begin the stopwatch and the rest of the team will work together to assemble your puzzle as quickly as possible.
7. Team work is essential, work together and communicate clearly.
8. When each piece of your puzzle is neatly in place, stop the stopwatch.
9. At the bottom of this sheet, make a note of the time on the stopwatch and the word written on the jigsaw puzzle. How quickly did you discover the word?
10. Once everyone has completed their puzzle, pick up the pieces and swap them with a different team (don't end up with your own puzzle!)
11. Choose a new time keeper.
12. All other players will now put on a blindfold. To make the blindfold, take some paper and a ~10cm piece of elastic. Staple the elastic to the paper to make a wearable mask that covers your eyes.
13. When all players but the time keeper are wearing a blindfold, the time keeper will start the stopwatch.
14. Using only your hands and the timekeepers instructions, your team must assemble the puzzle as quickly as possible.
15. When each piece of your puzzle is neatly in place, stop the stopwatch.

16. At the bottom of this sheet, make a note of the time on the stopwatch and the word written on the jigsaw puzzle.

Results:

Attempt	Time	Word	Did your team work well together?
1			
2 (blindfolded)			
3			

1. How well did your crew assemble the puzzle?

2. How could your crew improve on the assembly of the puzzle?

3. How well did your team communicate?

4. What are some challenges an astronaut could face in assembling an object in space?
