

Astronauts' Schedule

Name: _____

Program a 24-hour schedule for the three astronauts Kylie, Tom and Yuri as they prepare for a spacewalk on Day 175, manage a range of experiments, talk with students on Earth and do ongoing maintenance to keep the ISS in perfect working order ahead of the arrival of the new crew next week.

Important things that need to be included

Listed below are some important things that need to be included in each astronaut's schedule for the day.

- The crew is generally scheduled for sleep from 21:30 hours to 06:00 hours.
- The astronauts have three meals a day. They need 1 hour for each meal. They enjoy eating together but, if time does not permit, it is not necessary that they do.
- Each astronaut must do at least 2.5 hours of physical exercise, using three machines: a cycle ergometer, a treadmill and a Resistance Exercise Device. This must include at least 1 hour of cardio (treadmill or cycle ergometer) and 1 hour of resistance exercise. There is only one piece of each equipment. The astronauts like to break up the exercise into two sessions: one in the morning and another in the afternoon. They may not exercise 20 minutes before or after eating.
- Each day has a morning Daily Planning Conference (mDPC) and an evening Daily Planning Conference (eDPC) with Mission Control. Each meeting lasts for at least 30 minutes and all the astronauts must be present at these meetings.
- The astronauts each get some free time after dinner.

Astronauts also need some short break times during the day for a snack or a brief rest.

Kylie

- Kylie is scheduled to do a 20 minute in-flight education downlink with an Australian primary school from the Northern Territory at 10:00 hours. She would like to have at least 20 minutes for preparation prior to the interview.
- Kylie has been taking part in an experiment about her emotional health and life in space. She needs to write in a journal for 20 minutes every day.
- Kylie is working on an experiment that is investigating how immune cells adapt to space flight. She must put immune cells in a centrifuge and then 90 minutes later put them in the ISS's freezer for analysis back on Earth.
- Every astronaut must do a 90 minute (individual) emergency drill per week. Today it is Kylie's turn.
- Kylie must spend at least 1 hour performing maintenance and cleaning tasks. Additionally, she must spend 30 minutes in the Advanced Plant Habitat and the Vegetable Production System, nicknamed 'Veggie', which is growing fresh produce. The astronauts are monitoring the growth of a range of lettuce and mustard plants.

Tom

- Tom is also taking part in the experiment about his emotional health and life in space. He also needs to write in a journal for 20 minutes every day.
- Tom is beginning preparations for a spacewalk with Yuri in three days' time. He requires a 2–3 hour block of time for preparations.
- Tom needs about an hour to go up to the cupola to take some photographs of the active volcanoes in South-East Asia. These photographs will be loaded to the NASA website.
- In addition to 1 hour of general cleaning and maintenance, Tom manually updates his emails once a day. This takes him at least 1 hour.

Yuri

- Yuri needs to work with Tom as they begin preparations for their spacewalk. He is responsible for the initial set-up and requires an additional 30 minutes of time before Tom joins him.
- Yuri is talking to a group of Russian university students tomorrow and he needs 20–30 minutes for preparation time.
- Yuri is conducting experiments on how a variety of plant seeds grow in micro-gravity. He is particularly interested in how vegetables grow in space. He requires 60 minutes to collect his data and another 30 minutes to update his daily blog on the experiment.