Name: _____

Exploring Space

Key to STEM Interest Badge

- ❑ Read about Roberta Bondar, the first Canadian woman in space. You can go to the library to find a book, or read about her on the internet.

After you have read about Roberta Bondar, circle the answers to these questions:

How old was Roberta when she knew she wanted to be an astronaut?

a) 8 years old
b) 18 years old
c) 28 years old
d) 38 years old

What year was Roberta born in?

a) 1998
b) 1910
c) 1945
d) 1966

Is Roberta still alive?

a) yes
b) no

There are lots of pictures which show Roberta in her spacesuit. What colour is her spacesuit?

a) orange
b) blue
c) white
d) black

What was the name of the spaceship that she travelled on?

a) Space Shuttle Wonder
b) Space Shuttle Discovery
c) Space Shuttle Planets
d) Space Shuttle Atlantis

How many days did she spend in space?

a) 100
b) 3
c) 35
d) 8

How many space missions did she go on?

e) 10
f) 1
g) 4
h) 17

Was Roberta Bondar a Girl Guide?

a) yes
b) no

- ❑ Attached are two activity sheets and a colouring page from NASA about the International Space station. Complete these sheets to learn about the International Space Station. (find the originals at http://www.nasa.gov/centers/johnson/about/resources/jscfacts/activity_coloring_sheets.html)

Name: _____

Find out about the Canadarm. What did you learn?

_____

_____

_____

Imagine you could go anywhere in space. Where would you go, and why?

_____

_____

_____

_____

_____

❑ Act out a space story. _____

(parent signature)

What is a planetarium, and have you ever visited one?

_____

_____

_____

What is an observatory?

_____

_____

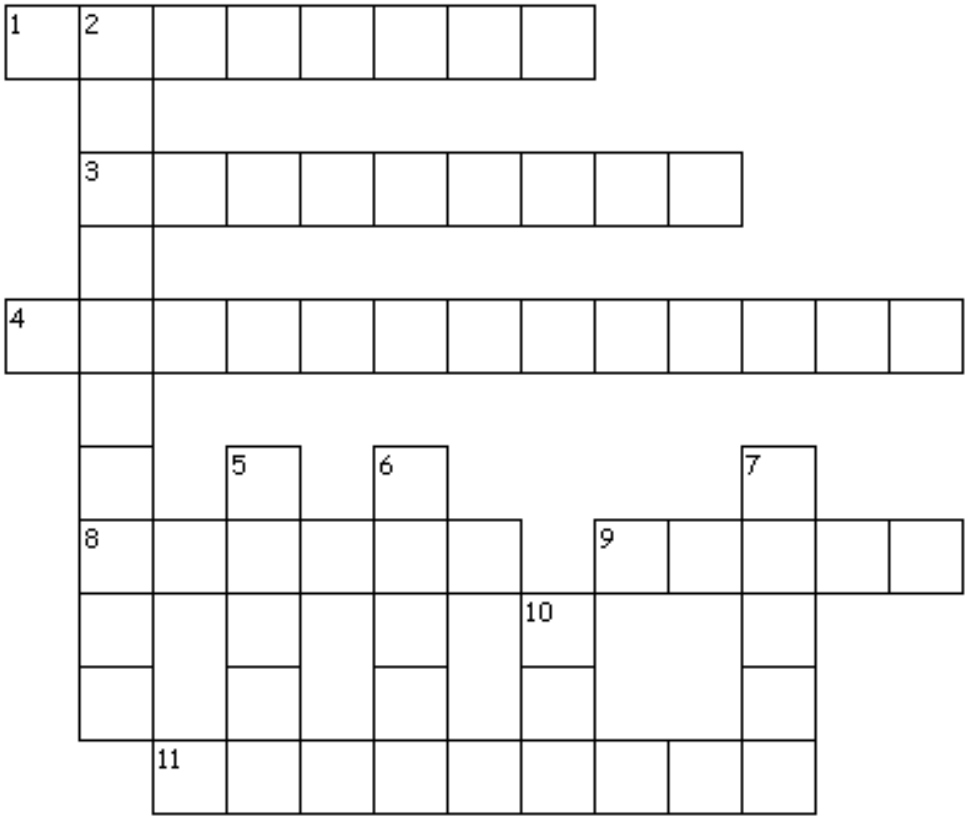
_____

(this badge sheet has 3 pages plus 3 extra activity sheets)

Name: _____

Space Crossword Puzzle

Use the clues below to fill in this puzzle.



Astronaut
Astronomer
Canadarm
Constellation
Earth
Meteor
Orbit
Solar
Stars
Sun
Telescope

Across

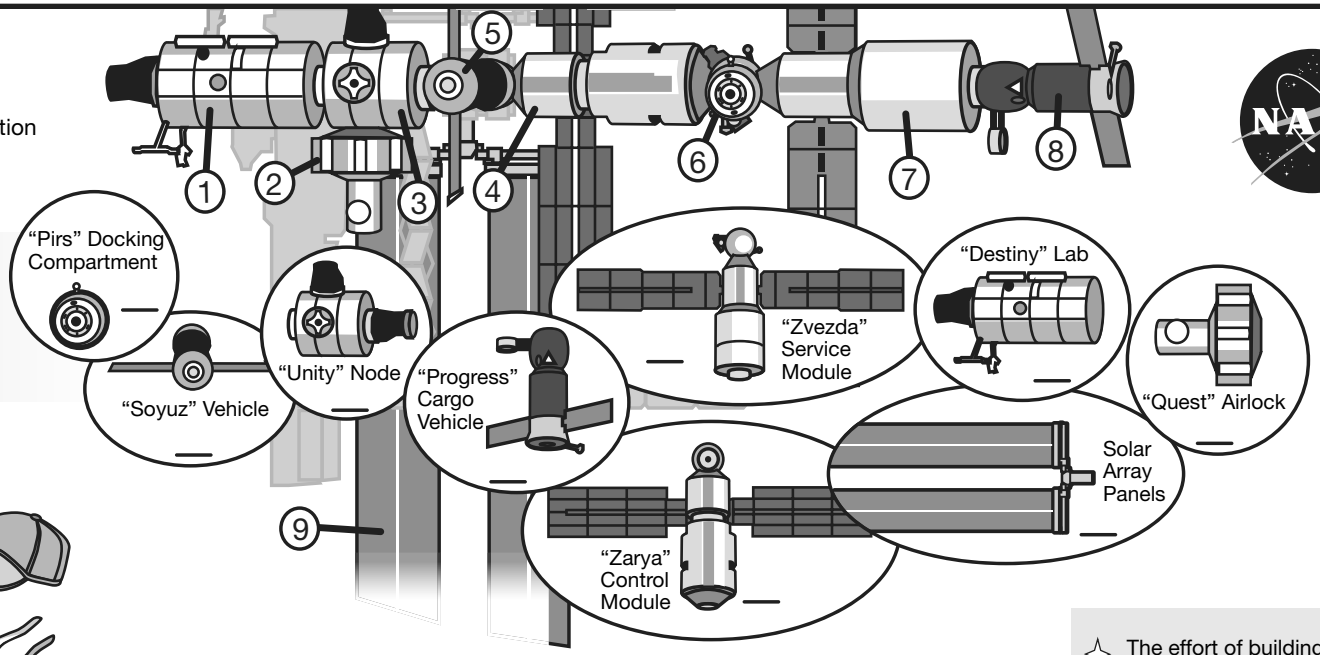
1. The robotic arm used on space shuttles.
3. Makes far away things appear closer.
4. A group of stars that people imagine form a picture.
8. A shooting star.
9. The planet we live on.
11. A person trained to travel in space.

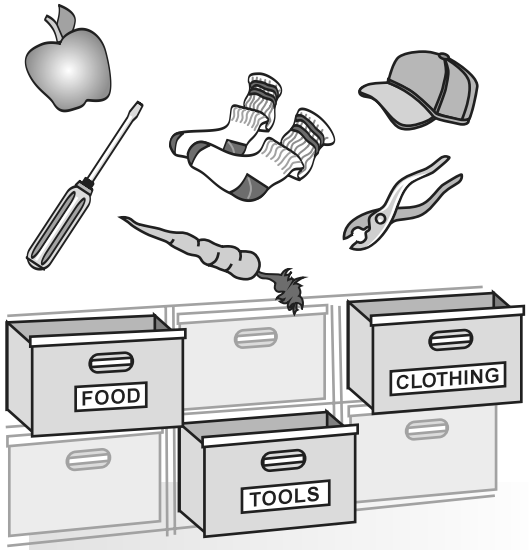
Down

2. A person who studies objects in space.
5. There are 200 billion of these in our galaxy.
6. Something that has to do with the sun.
7. The path followed by an object in space as it moves around another object.
10. The star that the planets orbit around.

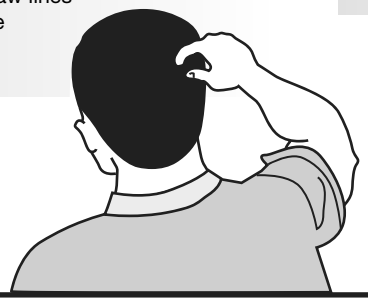
National Aeronautics and Space Administration

The International Space Station is made up of a series of modules, trusses, and panels. Can you number the pictured modules and panels to match this drawing of the Station?



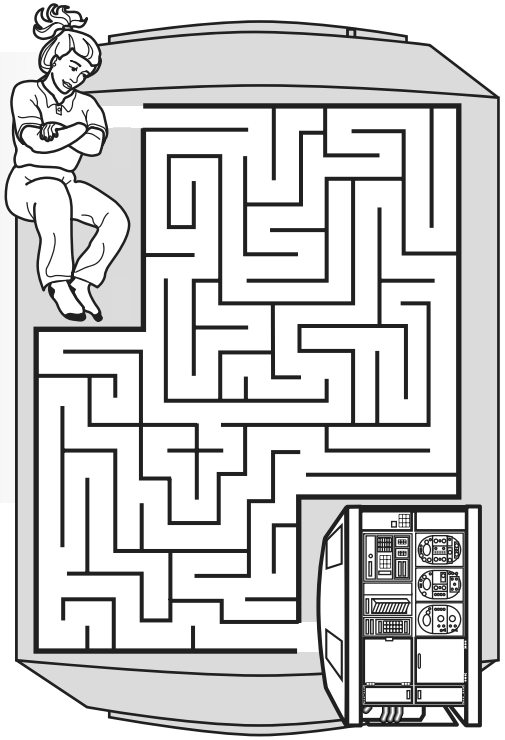


There is almost no gravity on the Station, so things float around if they're not restrained. Astronaut Mike needs to put these floating things back in the drawers where they belong. Can you help him? Draw lines from the objects to the place they belong.



There are many shelves, or "racks," on the Space Station. They can be used to hold experiments and research projects.

Astronaut Emily needs to find her way through all of the racks in the Destiny Lab so she can do research at the end of the maze. Can you show here how to get there?



- The effort of building the Space Station involved more than 100,000 people located in 37 U.S. states and around the world.
- In about one day, the Space Station travels a distance equivalent to going to the moon and back.
- It circles the Earth every 90 minutes, so the crew sees the sun rise every 90 minutes.
- Docking to the Space Station is like driving a car backward at 200 miles per hour and trying to match tailpipes with a car facing the other way.

www.nasa.gov

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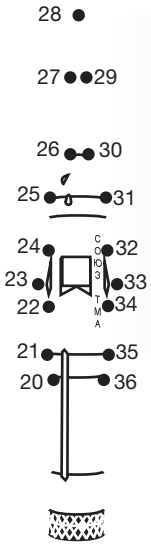
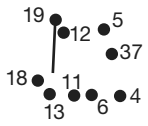
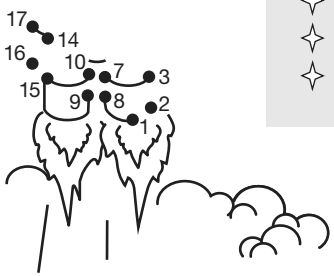
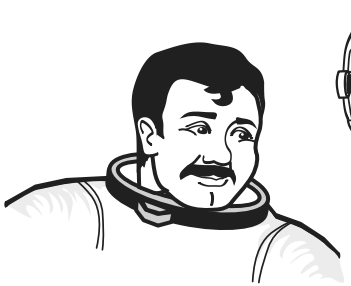
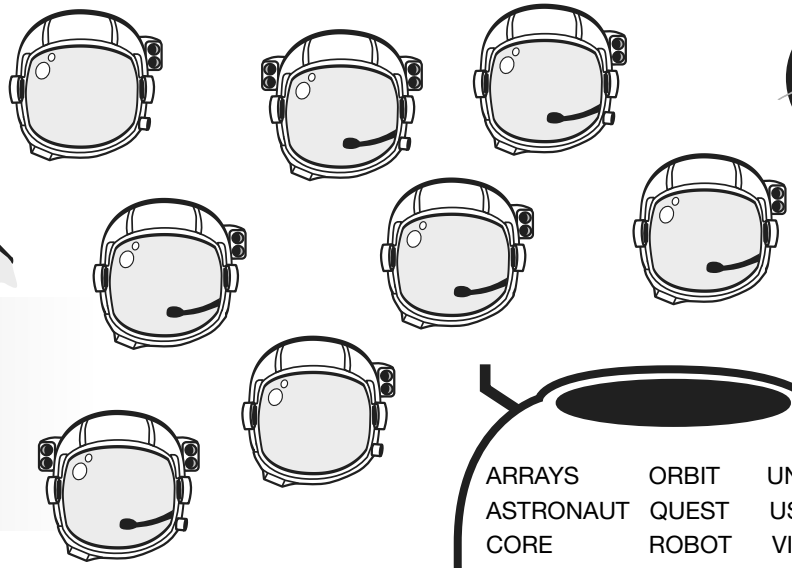


Connect the dots to draw a Soyuz rocket! This Russian rocket is one vehicle used to carry supplies, parts, and crew members to the International Space Station. An astronaut from Russia is called a “cosmonaut.”









Astronaut Carlos must find his own space suit helmet so he can go on a spacewalk. He knows his helmet is unique. Can you find the helmet that isn’t like any of the other helmets?

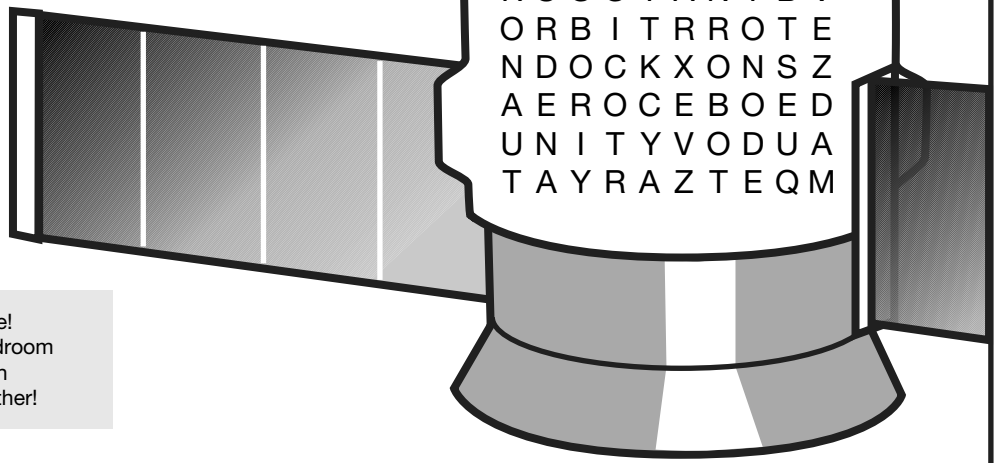
The International Space Station is a home in space to astronauts and cosmonauts who are conducting scientific research to help improve life on Earth and give us the knowledge needed to step further into space. This research can be done nowhere else. Scientists are learning about:

- improved ways to make antibiotics and other medicines
- changes in Earth’s climate, vegetation, and crops
- how the human body works
- better ways to recycle and purify water and air
- special ways to make things
- new ways to communicate
- the uniqueness of space

This is a Soyuz vehicle from the International Space Station. Try to find the Station-related words in the puzzle.

ARRAYS	ORBIT	UNITY
ASTRONAUT	QUEST	USA
CORE	ROBOT	VISION
DOCK	RUSSIAN	ZARYA
EVA	SOLAR	ZVEZDA
LAB	STATION	
NODE	TRUSS	

A R R A Y S E V A R
S T A T I O N I L Q
T R U S S L U S A Z
R U S S I A N I B V
O R B I T R R O T E
N D O C K X O N S Z
A E R O C E B O E D
U N I T Y V O D U A
T A Y R A Z T E Q M



The International Space Station is huge! Its living space is larger than a five-bedroom house, and it weighs almost one million pounds - more than 330 cars put together!

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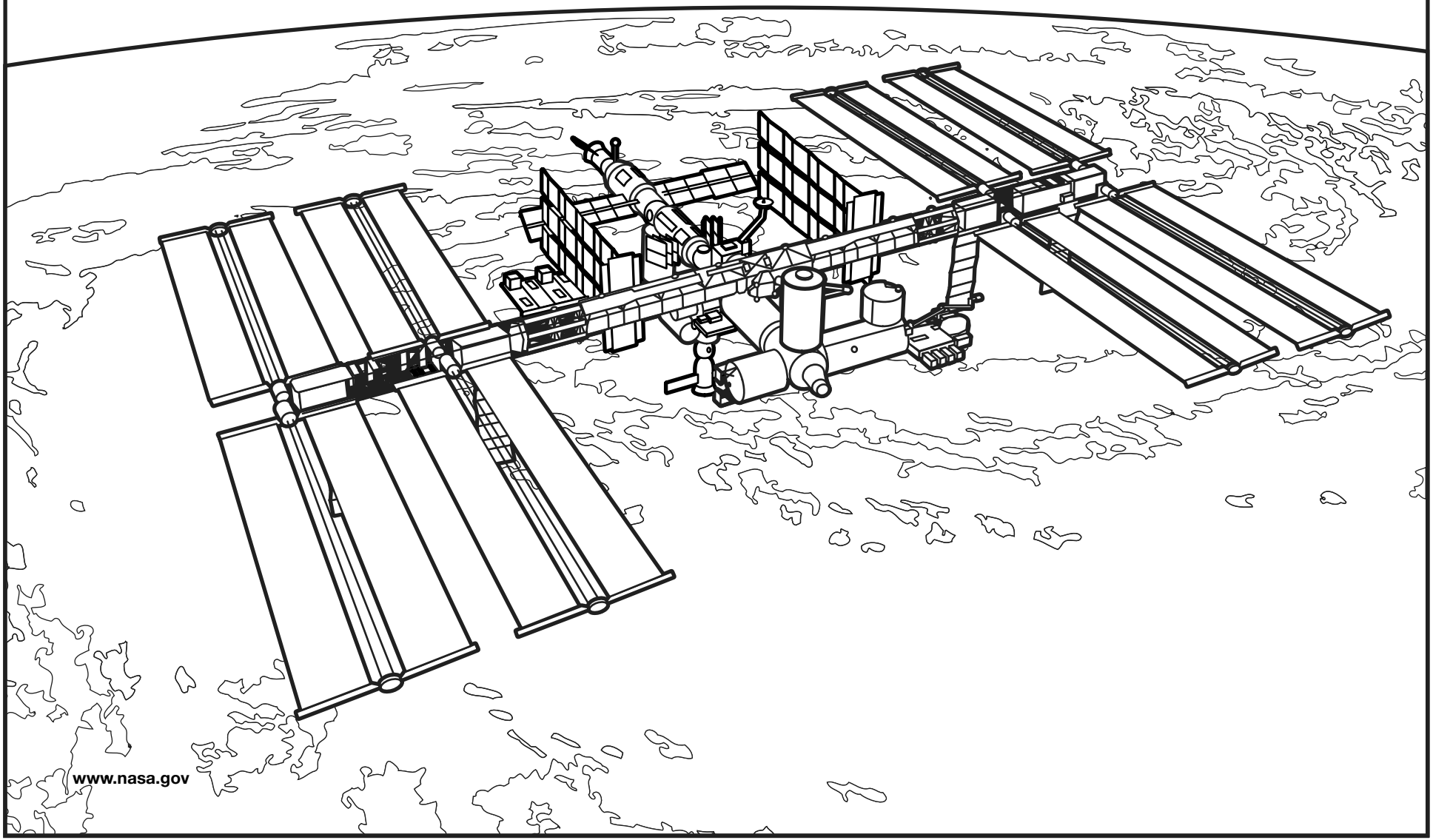

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