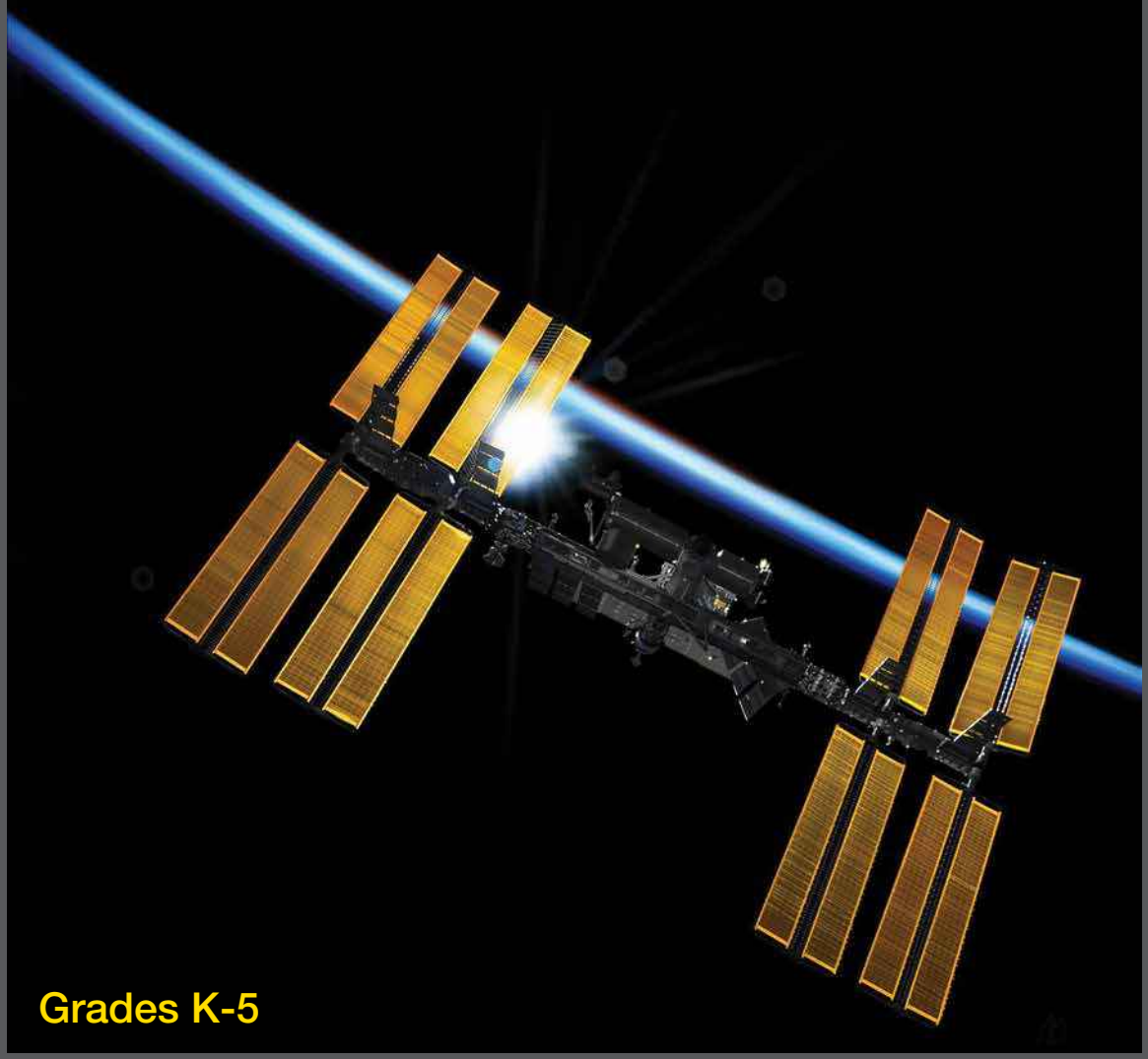
National Aeronautics and
Space Administration

International Space Station Activity Book



Grades K-5

This activity book belongs to:

_____

>>> For more information, check out the web sites on page 30! <<<

Note to Teachers and Parents

This activity book is designed to appeal to students in grades K-5. At the discretion of the teacher or parent/guardian, the more advanced pupils at the lower grades may be given the more difficult puzzles to work as a means of keeping them challenged. It is hoped that the activities presented herein will serve not only to convey information about the International Space Station, but about the challenges and rewards inherent in exploring space - both for the benefit of life on Earth, as well as for humankind's eventual expansion to the Moon, Mars, and the wonders which await us beyond. Through completion of fun activities, we hope to excite your students' imaginations, and engender in them an interest in math and science, culminating in their pursuit of space-related careers and/or hobbies. You are heartily invited to join your students as they work their way through the activities in this book — who knows, some of what they learn might just turn out to be new to you as well! Good luck, and have fun!

NP-2015-03-007-JSC

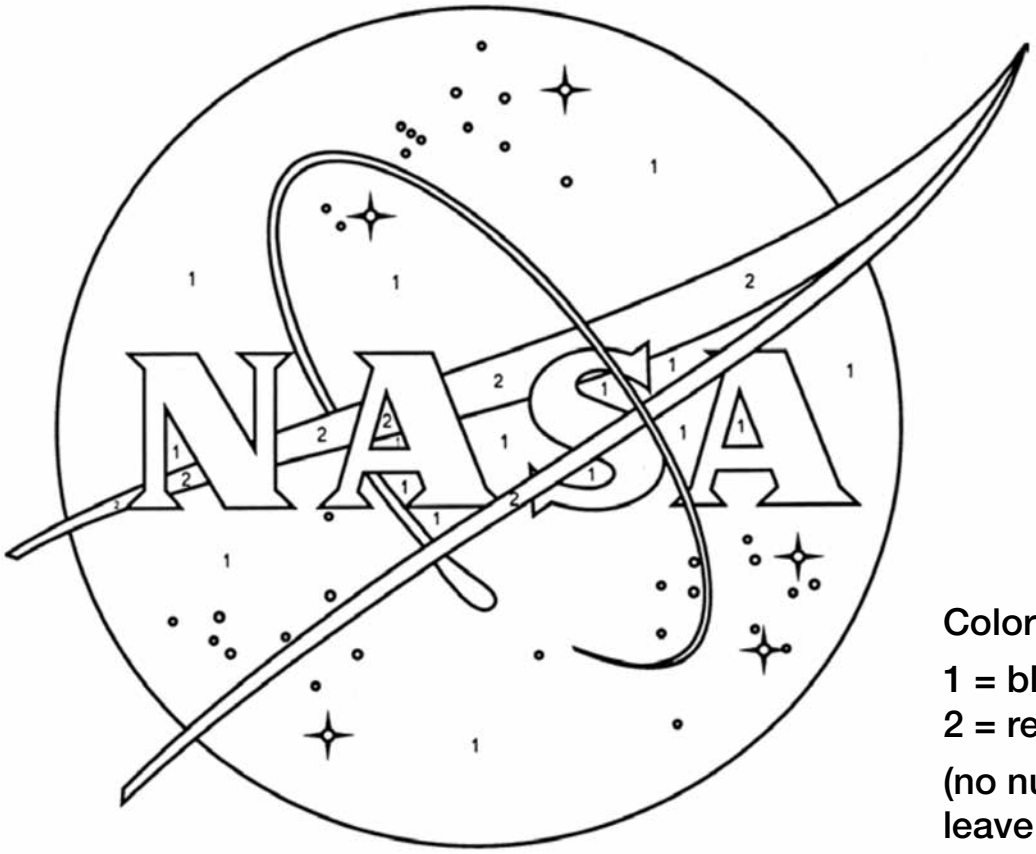
Space Symbols and Agency Acronyms

An acronym is a word that is made up of the initials of other words. Fill in the blank spaces to correctly identify the words in the NASA acronym. Use each of the missing letters below only once.

Then select your favorite red and blue crayons or markers and use the color key numbers as a guide to help you re-create the official NASA logo below.

N _ _ I O _ A L A E _ _ N A _ T _ C S & S _ _ C _ A D _ _ _ _ S T _ A T _ O N

Hint: the missing letters are: R, I, N, P, E, M, I, A, T, N, I, U, A, R, I, O



Color key:

1 = blue
2 = red

(no number – leave white)

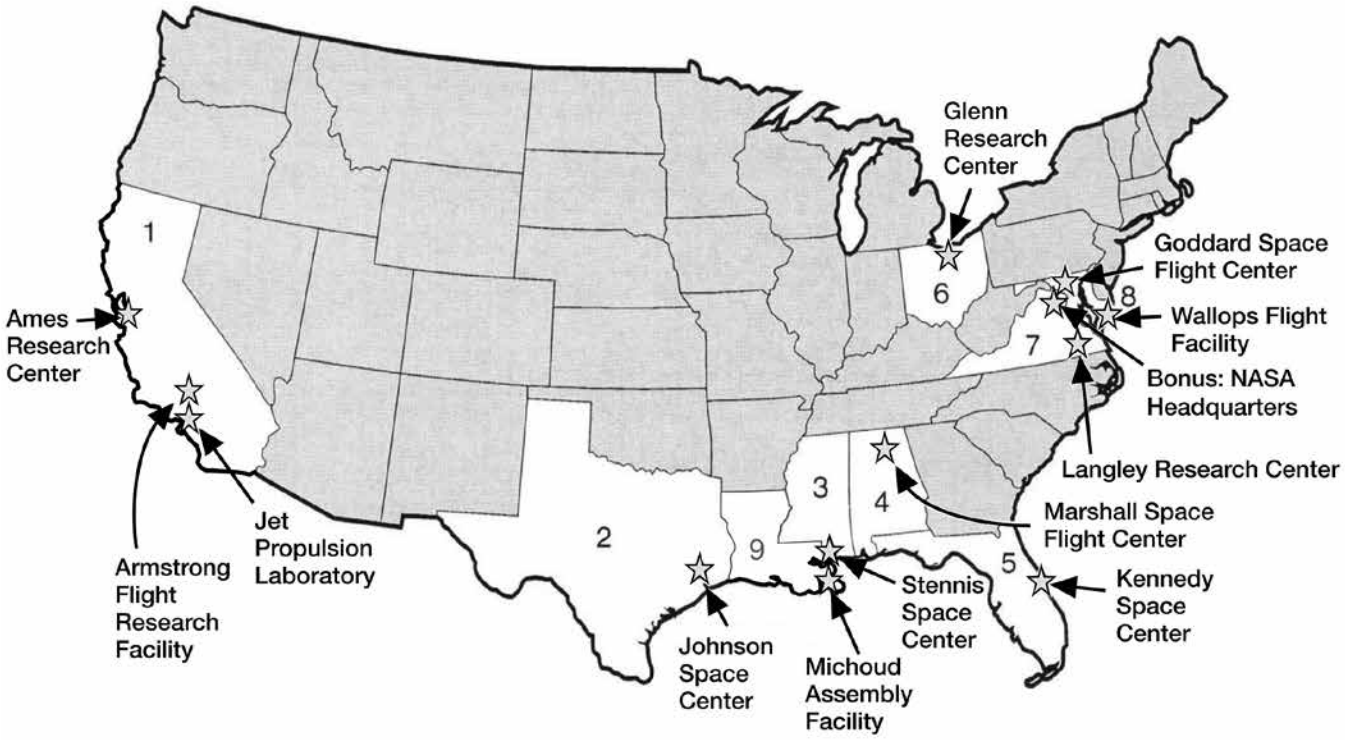
The NASA logo has symbolic meanings in its design. The blue sphere represents a planet; the stars represent space; the red chevron stands for aeronautics and a spacecraft orbits the NASA acronym.

President Dwight D. Eisenhower formed NASA on October 1, 1958 to give the United States a civilian air and space program. How old does that make NASA?

(Answers on page 32)

The States of NASA

In addition to the District of Columbia, there are 9 states within the United States that are home to one or more NASA facilities and space centers. After reviewing the map below, write each state's name by its correct number in the columns that follow.



1) _____ 4) _____

2) _____ 5) _____

3) _____ 6) _____

7) _____

8) _____

9) _____

Bonus: _____ *

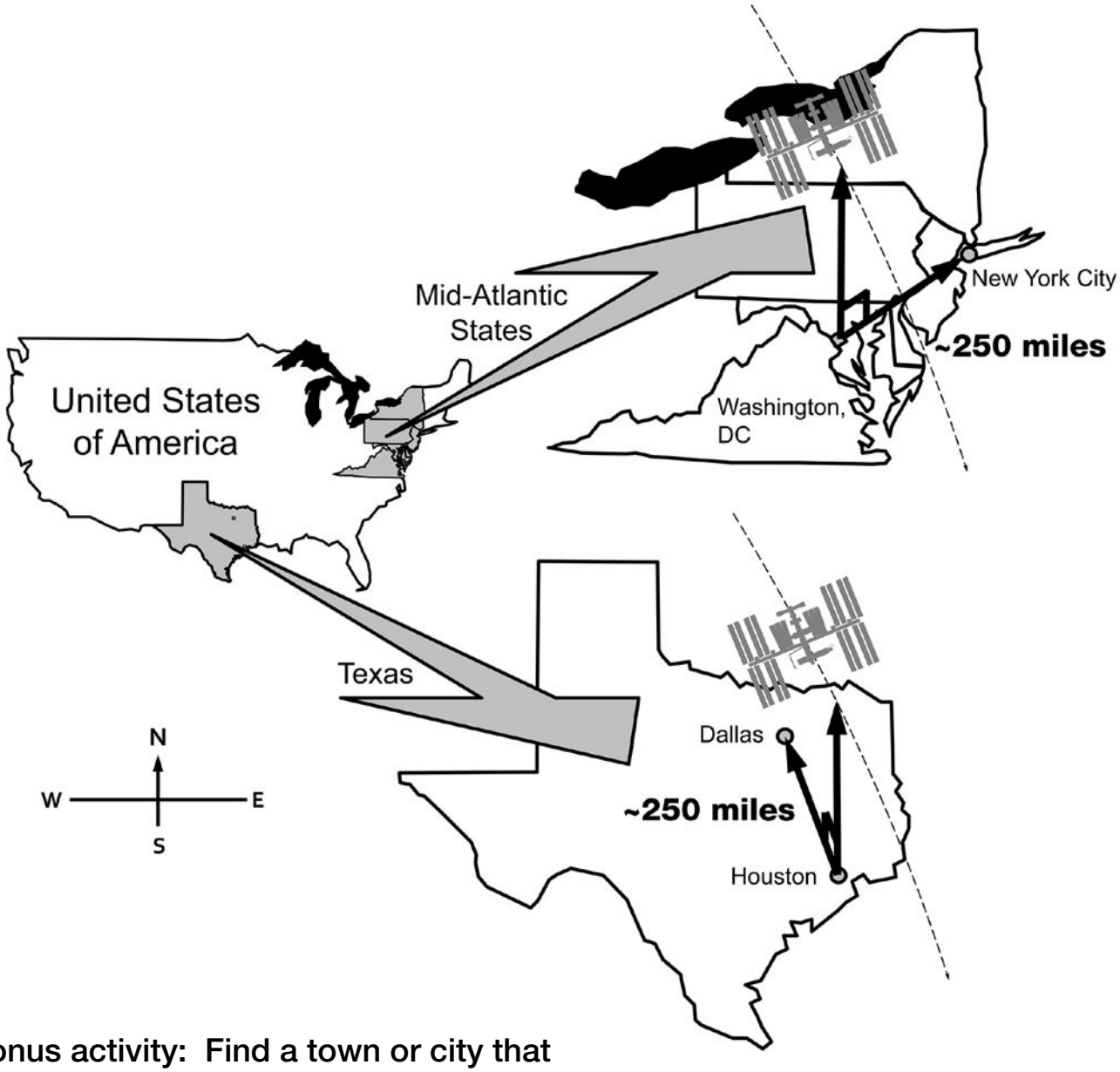
*Home of NASA Headquarters (Hint: It's not a state, but the capital of the United States!)

(Answers on page 32)

Where is the International Space Station?

Look up in the sky at special times and you will see the Space Station, brighter than the planet Venus, moving quickly overhead as it goes around the Earth. When it's right above you, the Space Station is almost as far away from you as Dallas is from Houston – or Washington, DC is from New York City (about 250 miles), only straight up!

You can find out when the Space Station will be flying over you at: Spot the Station (http://spotthestation.nasa.gov).



Bonus activity: Find a town or city that is about 250 miles from where you live… Now imagine flying that high up…!

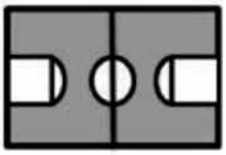
Did You Know...?

Let's learn some fun facts about the International Space Station!

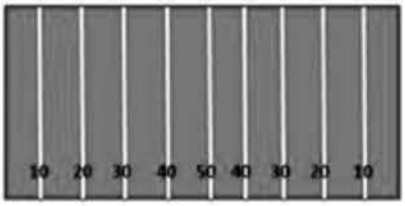
The International Space Station is as large as:
Circle the correct answer.

Playground

Tennis Court



Basketball Court



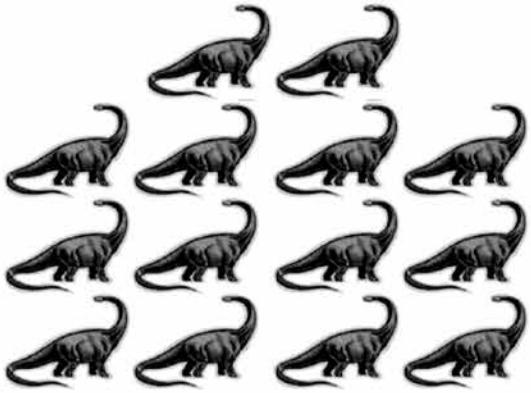
Football Field

How fast does the International Space Station orbit Earth?
Circle the correct answer.

How heavy is the International Space Station?
Circle the correct answer.

2½ blue whales

6 Space Shuttles



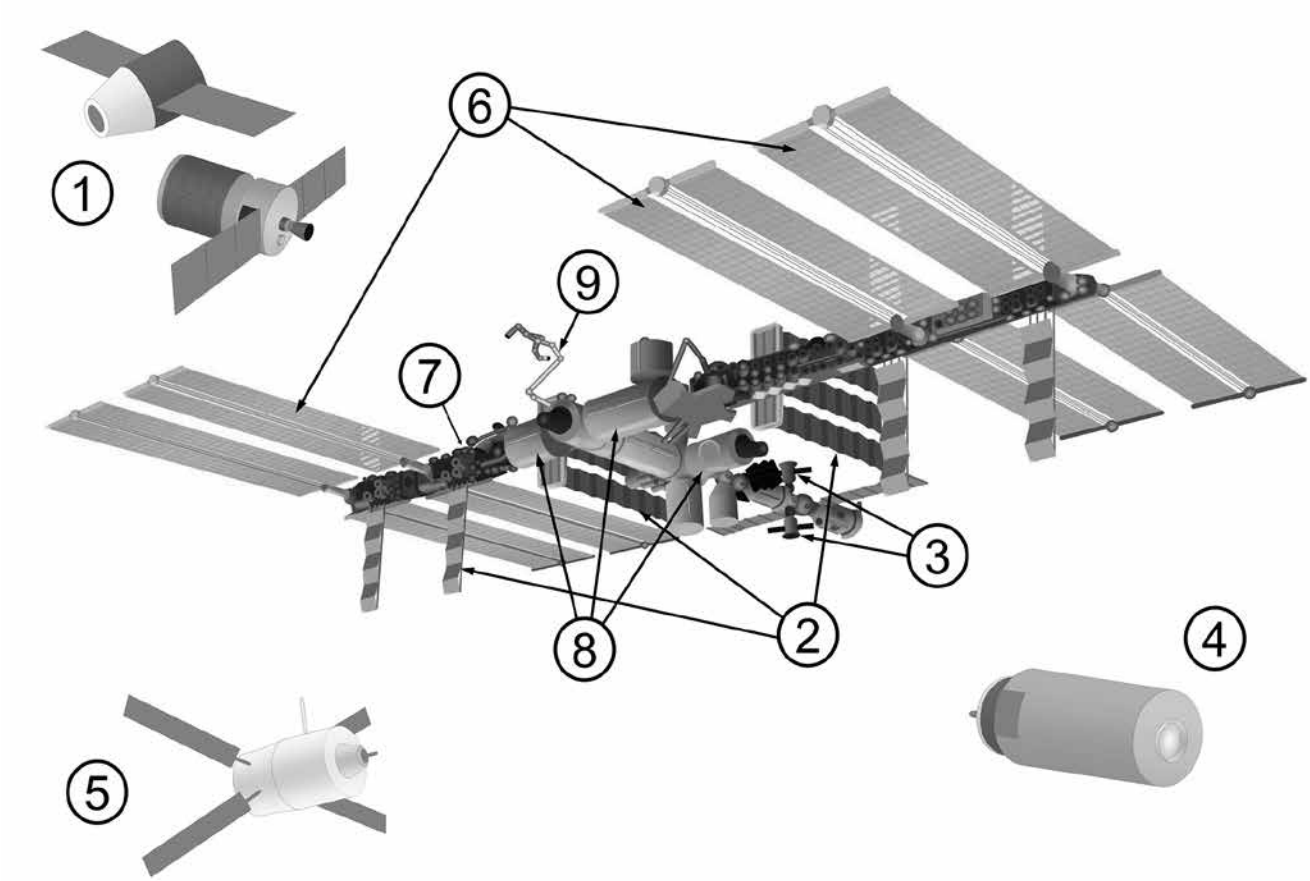
14 apatosauruses

40 school buses

(Answers on page 32)

International Space Station Parts

Let's learn some of the main parts of the International Space Station!
Match each numbered part with its correct description:



Write the part numbers in the blanks below, next to their descriptions:

_____ **Solar arrays** (8 pairs) make electricity from sunlight and store it in batteries
_____ **Truss** (big beam) holds solar arrays, radiators, and often the big robotic arm
_____ **Radiators** get rid of heat from solar arrays and modules to keep things cool
_____ Canada's big **robotic arm** moves people, parts and even spacecraft around
_____ **Modules** (big soup can shaped parts) are where the astronauts live and work
_____ **Soyuz** and **Progress** (Russian spacecraft) bring people, supplies and fuel
_____ **ATV** (European spacecraft) is designed to bring supplies and fuel
_____ **HTV** (Japanese spacecraft) is designed to bring supplies and spare parts
_____ **Dragon, Cygnus** (American spacecraft) designed to bring people, parts, and/or supplies

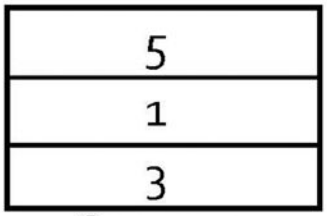
(Answers on page 32)

International Space Station Partners

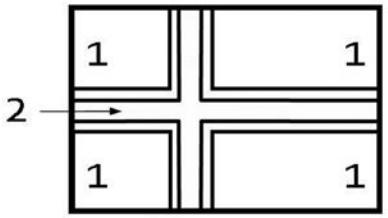
Let's learn who designed and built the International Space Station!

Color the flag of every country that helped build and supply the Space Station, using the color-by-number key below:

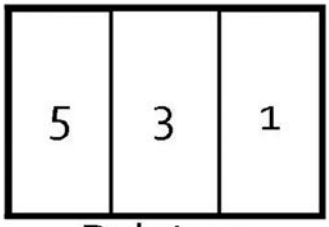
Canada



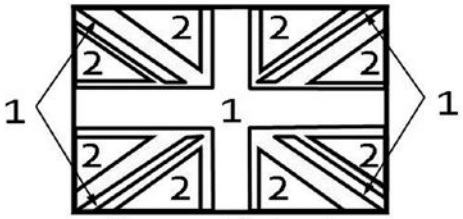
Germany



Norway

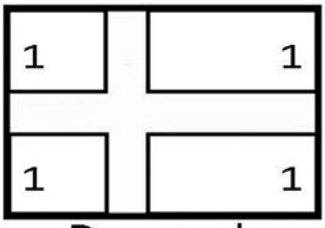


Belgium

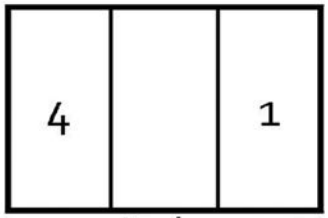


Great Britain

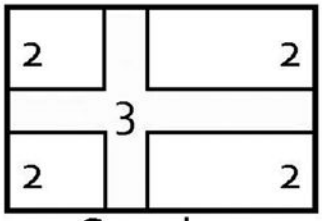
Spain



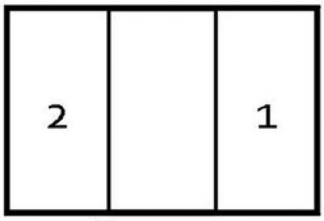
Denmark



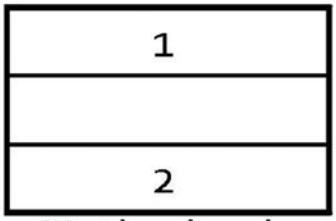
Italy



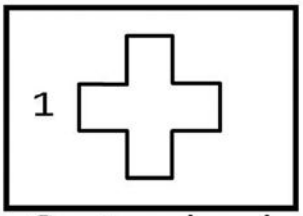
Sweden



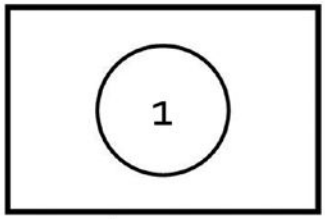
France



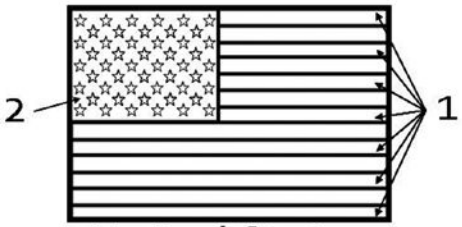
Netherlands



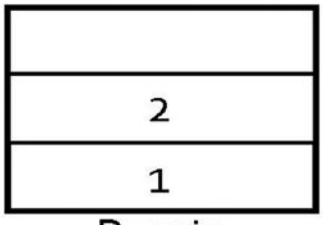
Switzerland



Japan



United States



Russia

Color Key: 1 = red 2 = blue 3 = yellow 4 = green 5 = black

What is it Like to Build an International Space Station?

What were some special challenges faced by the people who designed and built the International Space Station?

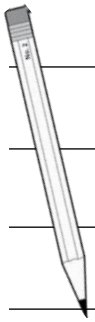
Pick a country you've never visited: _____

Do people there speak your language? Yes ____ No ____

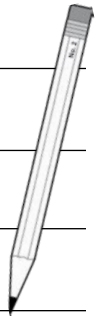
Do you speak theirs? Yes ____ No ____

Now pretend you have to work with someone from that country to design a new spaceship…

What will be fun about your new job?

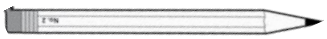


What might be hard about your new job?

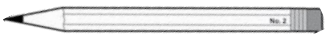


Letter Shuffle

How many words can you make from the letters in



SPACE STATION?



(Some examples are given on page 33)

Welcome to the Space Station Word Search!

Find the words listed below in the puzzle at the bottom of this page! Then learn all about them on the next page!

(Hint: They can go up/down, left/right, diagonally, forward or backward!)

AIRLOCK
ASTRONAUT
CANADA ARM
COLUMBUS
COSMONAUT
CYGNUS
DESTINY
DRAGON
KIBO
MODULE
NASA
PROGRESS
RADIATOR
RESEARCH
SCIENCE
SOLAR ARRAY
SOYUZ
SPACE SHUTTLE
TRUSS
ZVEZDA

R	E	Z	Z	U	Y	O	S	T	O	C	S	U	S	R
E	S	B	F	V	S	R	A	R	Z	Y	O	N	S	C
S	S	P	A	C	E	S	H	U	T	T	L	E	E	A
E	D	A	S	C	U	Z	N	S	W	K	A	B	R	J
A	F	N	A	O	K	S	D	S	M	A	R	G	G	G
R	R	Y	N	X	K	P	N	A	T	G	A	Z	O	I
C	M	R	G	C	I	B	O	S	T	Y	R	E	R	O
H	U	S	L	A	B	N	Y	R	R	P	R	R	P	K
U	T	U	A	N	O	M	S	O	C	C	A	O	C	T
N	O	B	Y	A	G	B	L	X	E	H	Y	T	U	B
Y	S	M	P	D	A	Y	Z	L	P	O	I	A	T	Y
Z	C	U	D	A	U	C	U	E	N	D	N	I	A	N
R	I	L	E	A	J	D	R	A	G	O	N	D	M	I
G	E	O	C	R	O	Y	K	C	R	Y	R	A	E	T
N	N	C	U	M	R	W	T	T	W	A	Y	R	B	S
K	C	O	L	R	I	A	S	U	N	G	Y	C	D	E
C	E	Z	E	Y	B	A	Y	Z	N	X	E	P	R	D

(Answers on page 33)

How Many Words Were You Able to Find?

Check your solution against the answer key, then read about what they mean in the special language of life on the Station!

AIRLOCK - The special module that astronauts use to enter and leave the Space Station for spacewalks

ASTRONAUT - The American word for space traveler

CANADA ARM - Canada's giant robotic arm, called 'Canadarm2' for short (the rst Canadarm ew on the Shuttle)

COLUMBUS - Name given to Europe's laboratory module, in honor of Christopher Columbus

CYGNUS - An American spaceship designed to bring supplies to the Space Station

COSMONAUT - The Russian word for space traveler

DESTINY - Name given to America's laboratory module, which also controls most of Station's functions

DRAGON - The rst American spaceship to visit Station since the Space Shuttle was retired; designed to bring people and supplies

KIBO - Name given to Japan's laboratory module, it means 'hope' in Japanese

MODULE - Any of several special 'rooms' on Station where people can live and work without having to wear a space suit

NASA - The short form of 'National Aeronautics and Space Administration' (America's space agency)

PROGRESS - Name given to the Russian spaceship that brings supplies and fuel to the Space Station

RADIATOR - Special parts designed to unfold and release heat into the coldness of space so Station doesn't overheat

RESEARCH - Collecting data and guring out what it means, as a way of trying to understand better how things work

SCIENCE - Observing, studying, and experimenting to learn about how the universe and everything in it works

SOLAR ARRAY - Special parts that unfold and are designed to use the sun's energy to make electricity to power Station

SOYUZ - Russian for 'union'; it is the name of Russia's spaceship that carries people to the Station and back again

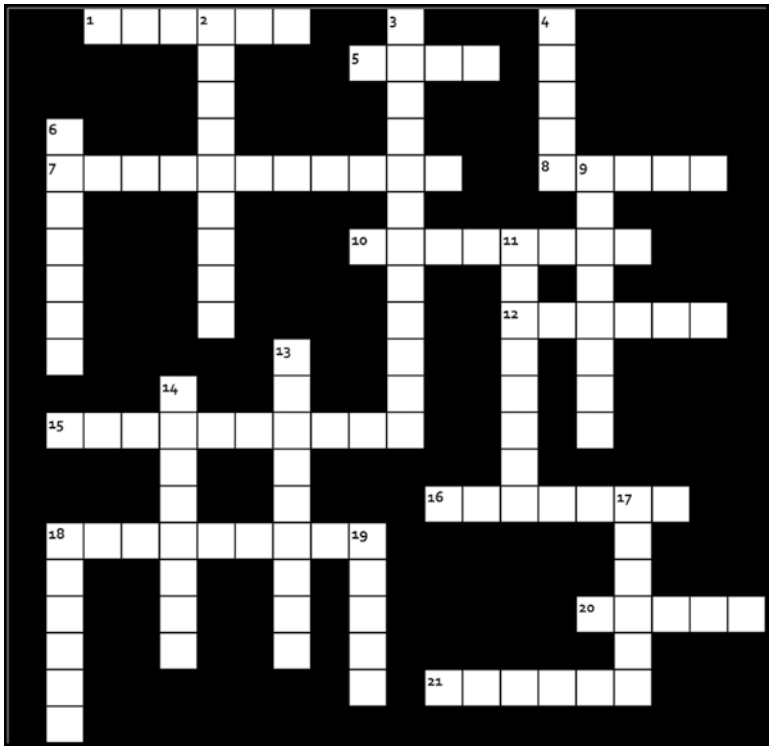
SPACE SHUTTLE - American spaceship, now retired, used to launch most of the Station's pieces, plus people and supplies

TRUSS - The giant beam which connects the solar arrays and radiators to the rest of the Space Station

ZVEZDA - Russian for 'star'; name given to the module that controls the Russian part of the Space Station

Let's do the Space Station Crossword Puzzle!

Use the words in the Word Bank below to solve the clues and complete the puzzle! Page 10 has information that can help!



Word Bank

(Hint: Cross words off the list below as you use them in the puzzle above)

AIRLOCK
ARRAY
ASTRONAUT
AUTOMATED
CANADA
COLUMBUS
COSMONAUT
CUPOLA
CYGNUS
DESTINY
DRAGON
EXPLORATION
KIBO
LABORATORY
MICROGRAVITY
PROGRESS
RADIATOR
RESEARCH
SOYUZ
TRUSS
ZARYA
ZVEZDA

Across

1. Country that makes the giant robotic arm for the Space Station
5. Name of Japanese module; it means 'hope'
7. What the 'X' stands for in JAXA (hint: it stands for the first sound of the word, not the letter it begins with)
8. The part of the Station that turns sunlight into electricity
10. The name of the Russian cargo spaceship
12. The first American spaceship to visit the Space Station since the Shuttle was retired
15. Place where experiments are conducted
16. Special module astronauts use to exit and enter the Station for spacewalks
18. Russian word for space traveler
20. Russian spacecraft that takes astronauts to Station and brings them back again; it means 'union'
21. Name of the Russian module that controls the Russian part of Station; it means 'star'

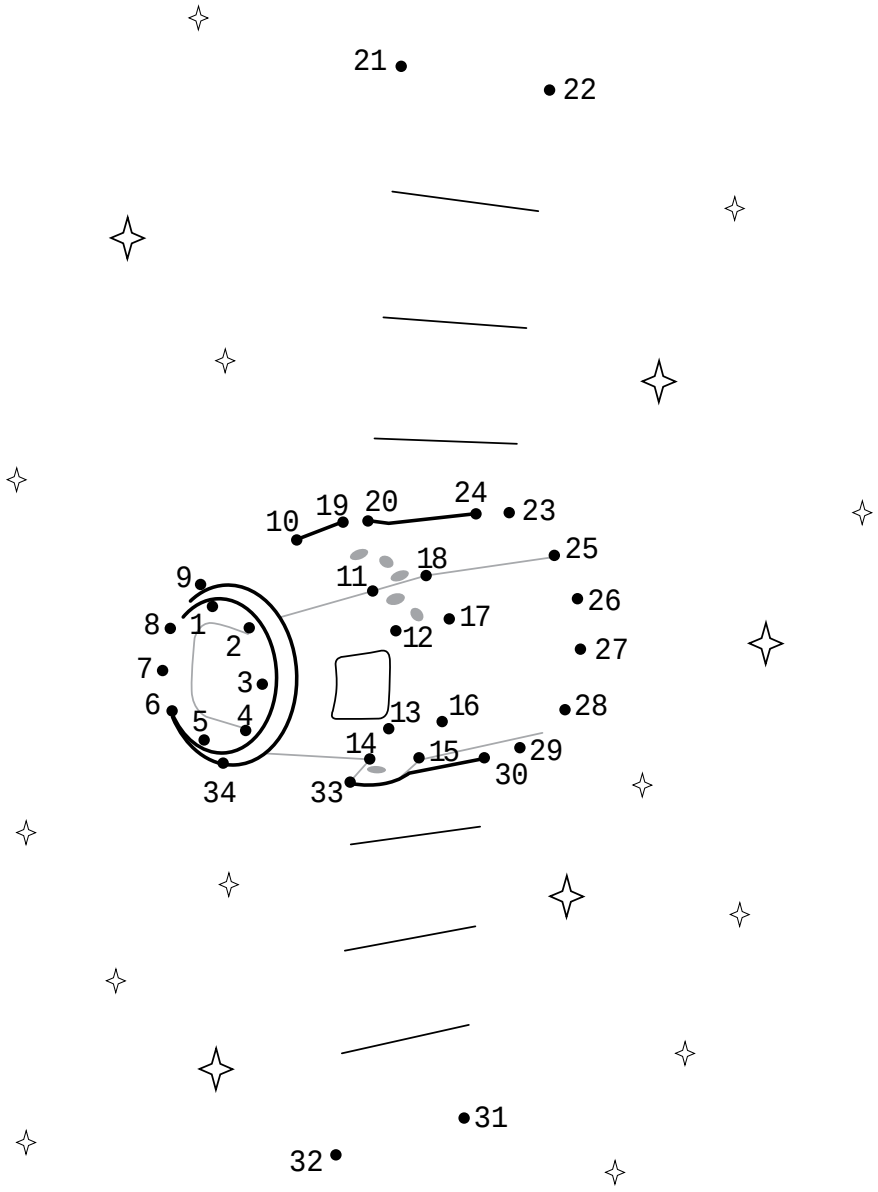
Down

2. American word for space traveler
3. Nearly gravity-free environment in which experiments are conducted on the Station
4. The first piece of the Station launched into orbit; it means 'dawn' in Russian
6. The name given to the American laboratory
9. Experiments conducted on Station to learn about life, the Earth, and the universe
11. The part of the Station that releases heat to the coldness of space so Station doesn't get too hot
13. What the 'A' stands for in the name of the European cargo spaceship
14. The name given to the European laboratory
17. The module with special windows for looking at the Earth and out into space
18. This American spacecraft delivers only cargo – not astronauts – to Station
19. Giant beam that connects the solar arrays and radiators to the rest of Station

(Solution on page 33)

Connect the Dots to Draw a Space Station Transport Vehicle!

This type of spaceship is used to carry people, supplies, and/or spare parts to the Space Station, and return people and experiment results back to Earth. The United States has developed two vehicles, Dragon and Cygnus, which join several similar vehicles provided by Russia, Japan, and Europe.

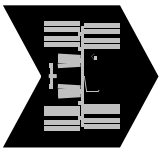


Are you ready for a more challenging puzzle? Go to the next page to try drawing the International Space Station!

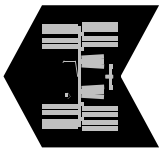
(Solution on page 34)

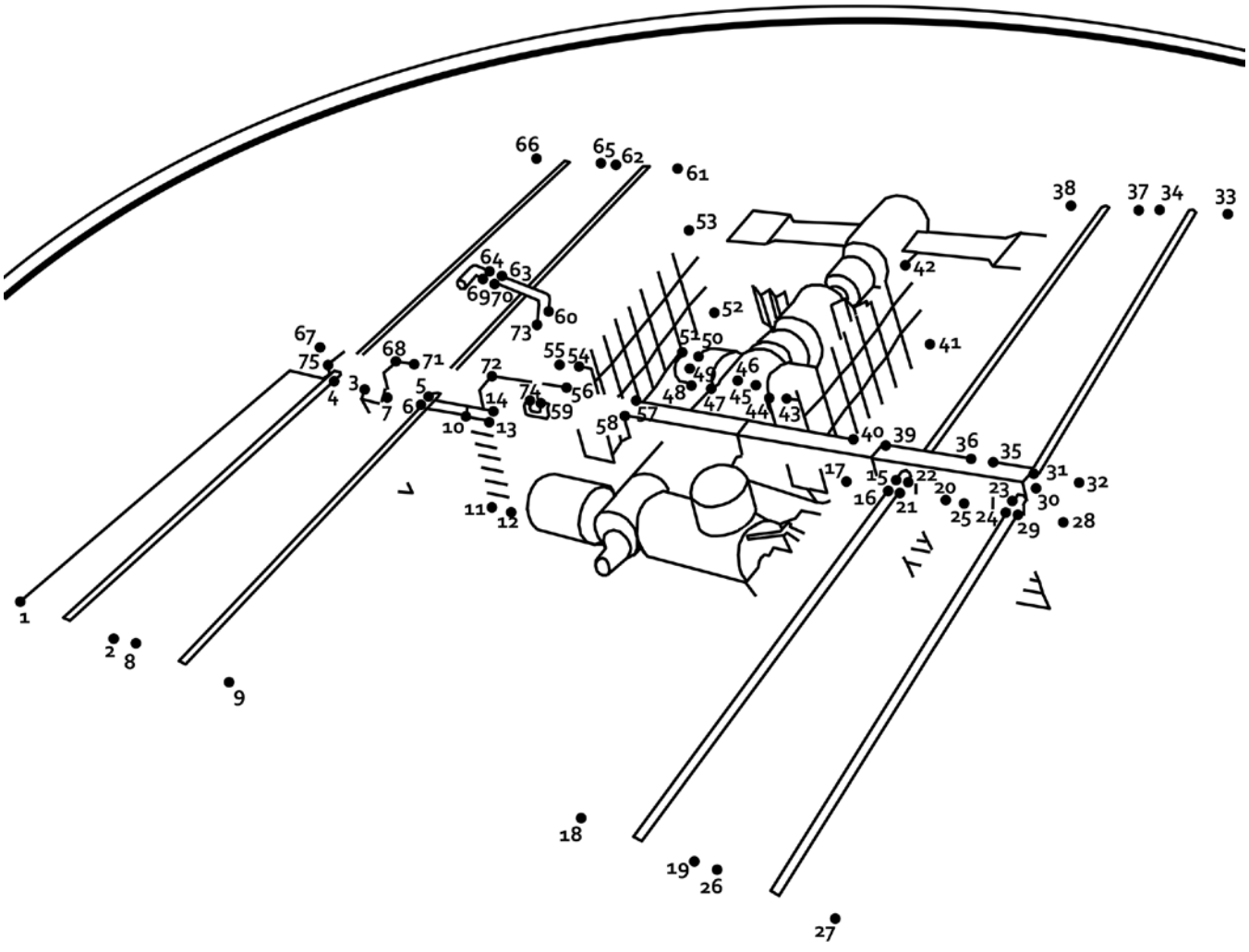
Draw the International Space Station!

Connect the dots in order of their numbers and see your very own Space Station take shape! Then color it any way you like!



Bonus challenge: Sketch in and color the Earth! Over which continent or ocean is your Space Station flying?





(Solution on page 34)

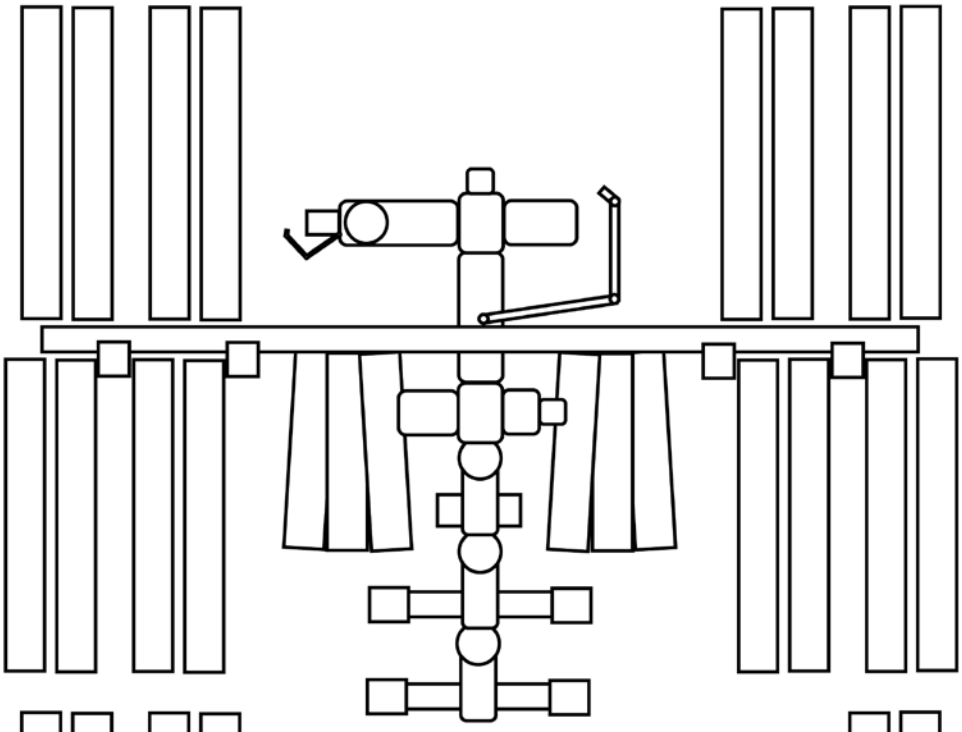
What's Different?

Astronauts need to have a keen eye for details when doing experiments or solving problems on the Space Station.

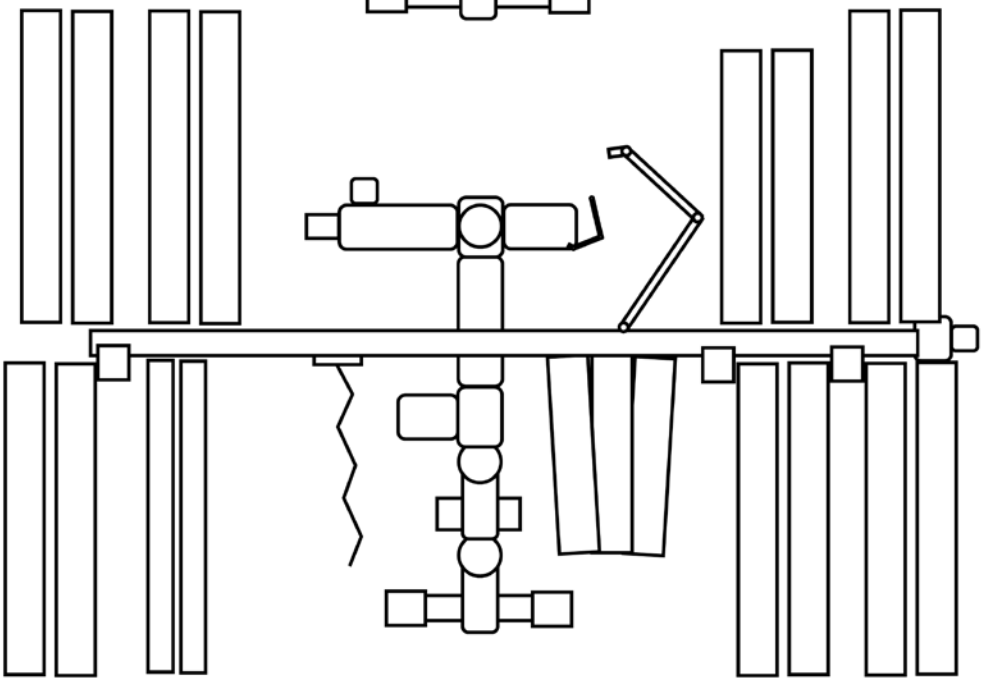
Find all thirteen differences between these pictures!

Circle everything on B that's different from A:

A:



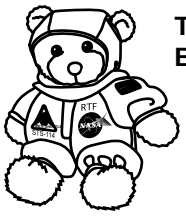
B:



(Answers on page 35)

Packing for a Stay Aboard the International Space Station!

Astronaut Yuko is deciding what to take into space. Weight is very important in space travel. Food, water, personal items, and other supplies are needed for the long trip, and their weight all counts against the total weight that the transport spacecraft is able to take up to the Space Station. Yuko can only take up to ten pounds (lb) of personal items with her. Her case weighs two pounds empty, and cannot weigh more than 10 pounds when filled. Help Yuko choose what to take along. Circle the case, and each object you think she should pack in it. Remember to add up the weight as you go, so Yuko doesn't try to pack too much! Multiple solutions are possible!



Teddy Bear
1 lb

Cowboy Boots
4 lb

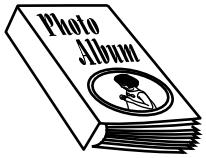
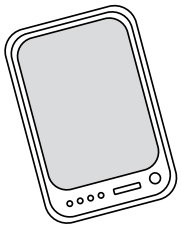
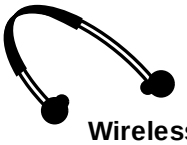


Photo Album
3 lb

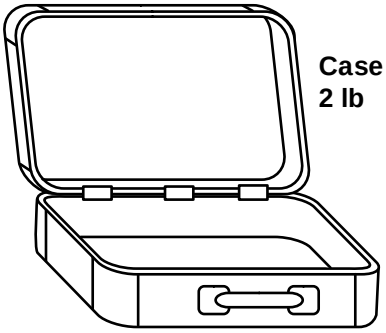


Electronic Tablet
1 lb



Wireless Headphones
1 lb

Giant Chocolate Bar
1 lb



Case
2 lb

Grooming Kit
2 lb

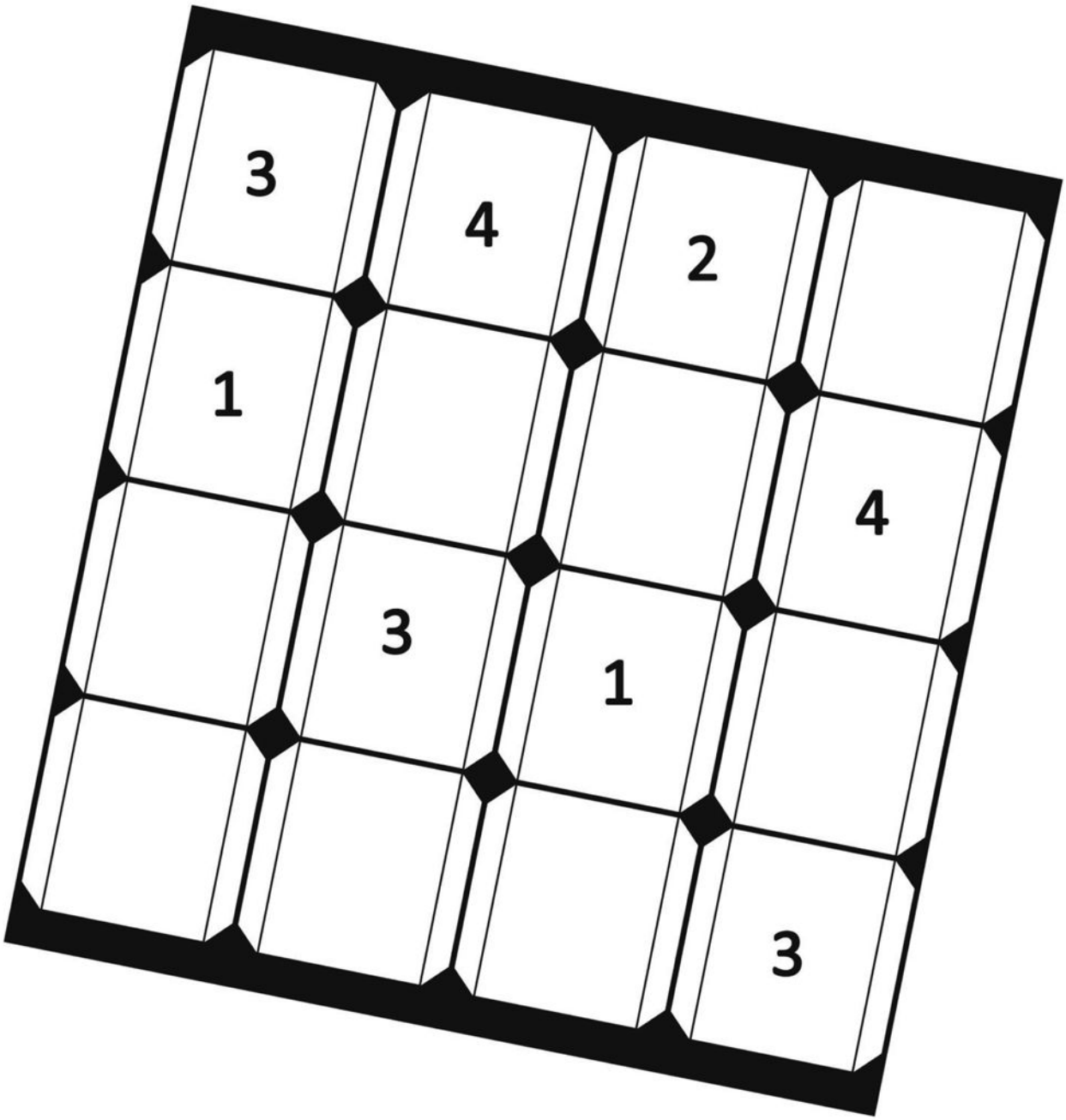
Item packed	Weight (lb)
Case	2

Total weight of items: _____
(10 lb maximum)

Now think of what items not already shown here that you would like to take with you if you were given the chance to live and work on the Space Station. How heavy are they? Would you be able to take them with you? What might you have to leave behind?

Space Sudoku!

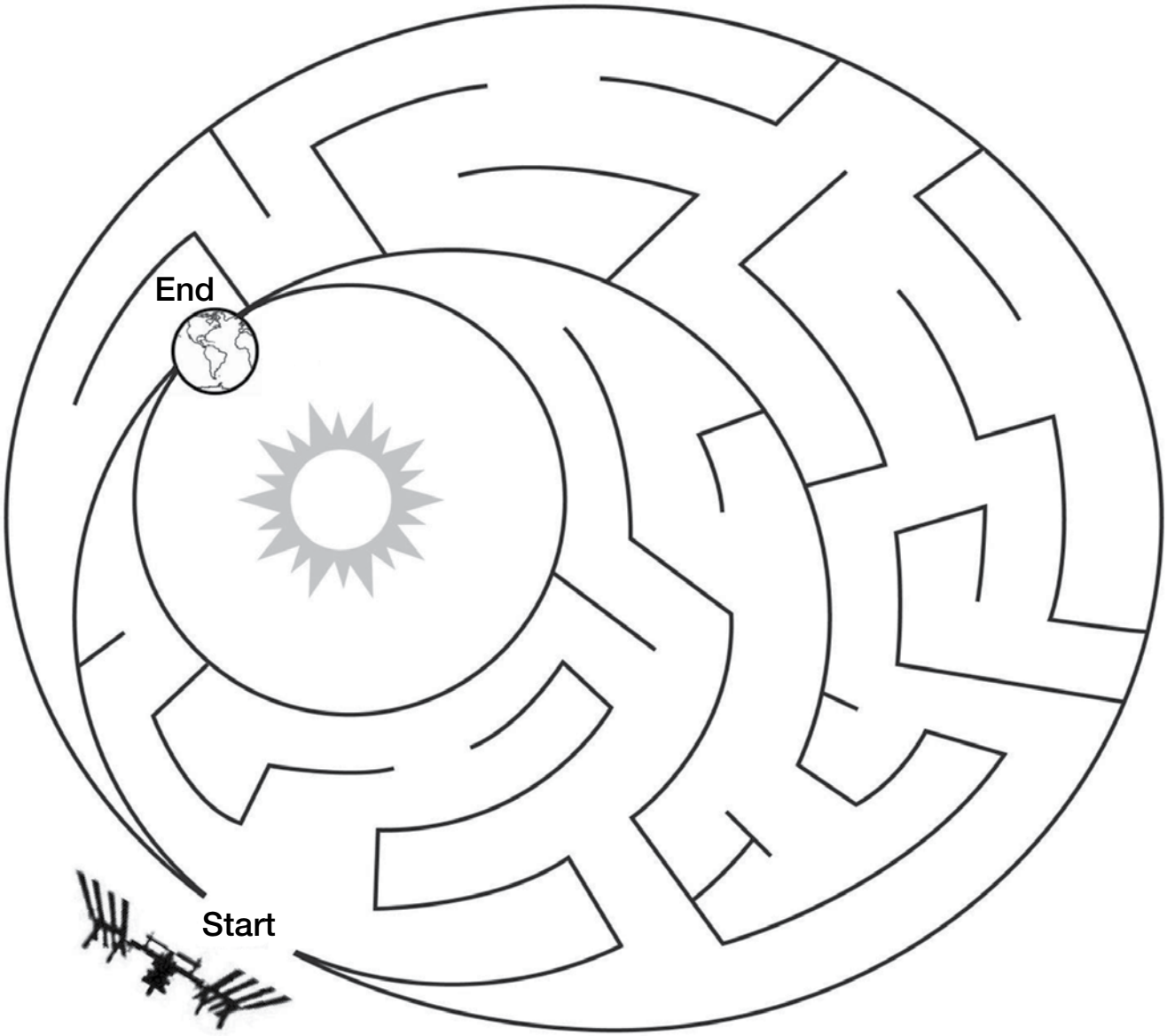
After a hard day's work, astronauts have time to exercise and relax with some of their favorite activities. Relax with a Sudoku puzzle! Remember, use the numbers 1, 2, 3, and 4 only once each in each row and once in each column.



(Solution on page 35)

Returning to Earth!

Can you find a path for the Dragon supply spaceship to take in order to bring the results of the latest experiments back to Earth?

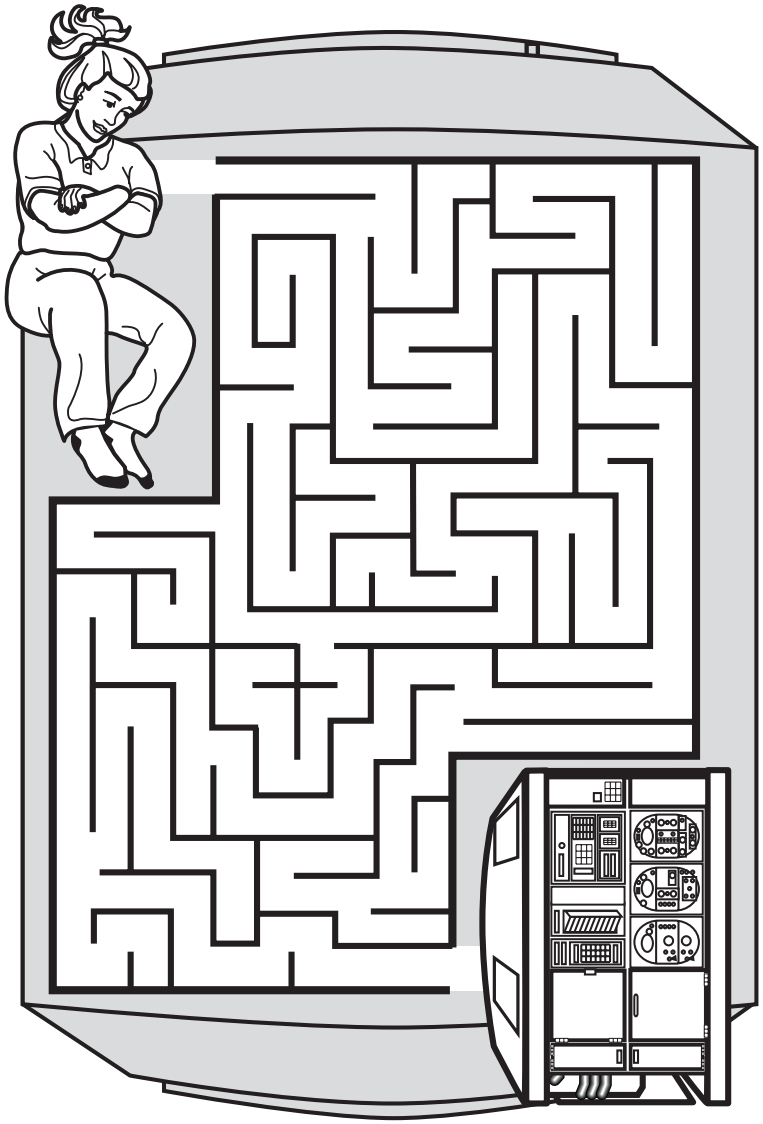


Are you ready to take on a bigger challenge? Go to the next page and help a crew member aboard the Station get her work done!

(Solution on page 35)

Finding One's Way Around on the Space Station!

There are many shelves, or 'racks,' in the Destiny Lab on the Space Station. They can be used to hold experiments and research projects. Astronaut Ruby needs to find her way through all of the racks in the Destiny Lab so she can do her research at the rack at the end of the maze. Can you show her how to get to her experiment's rack?

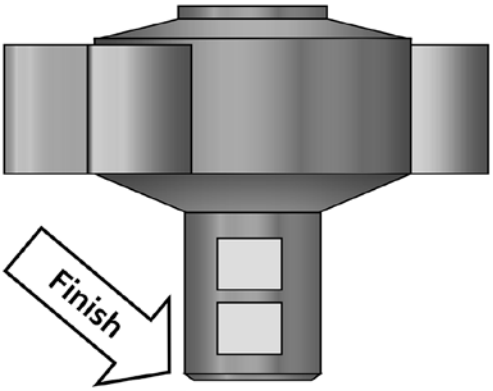


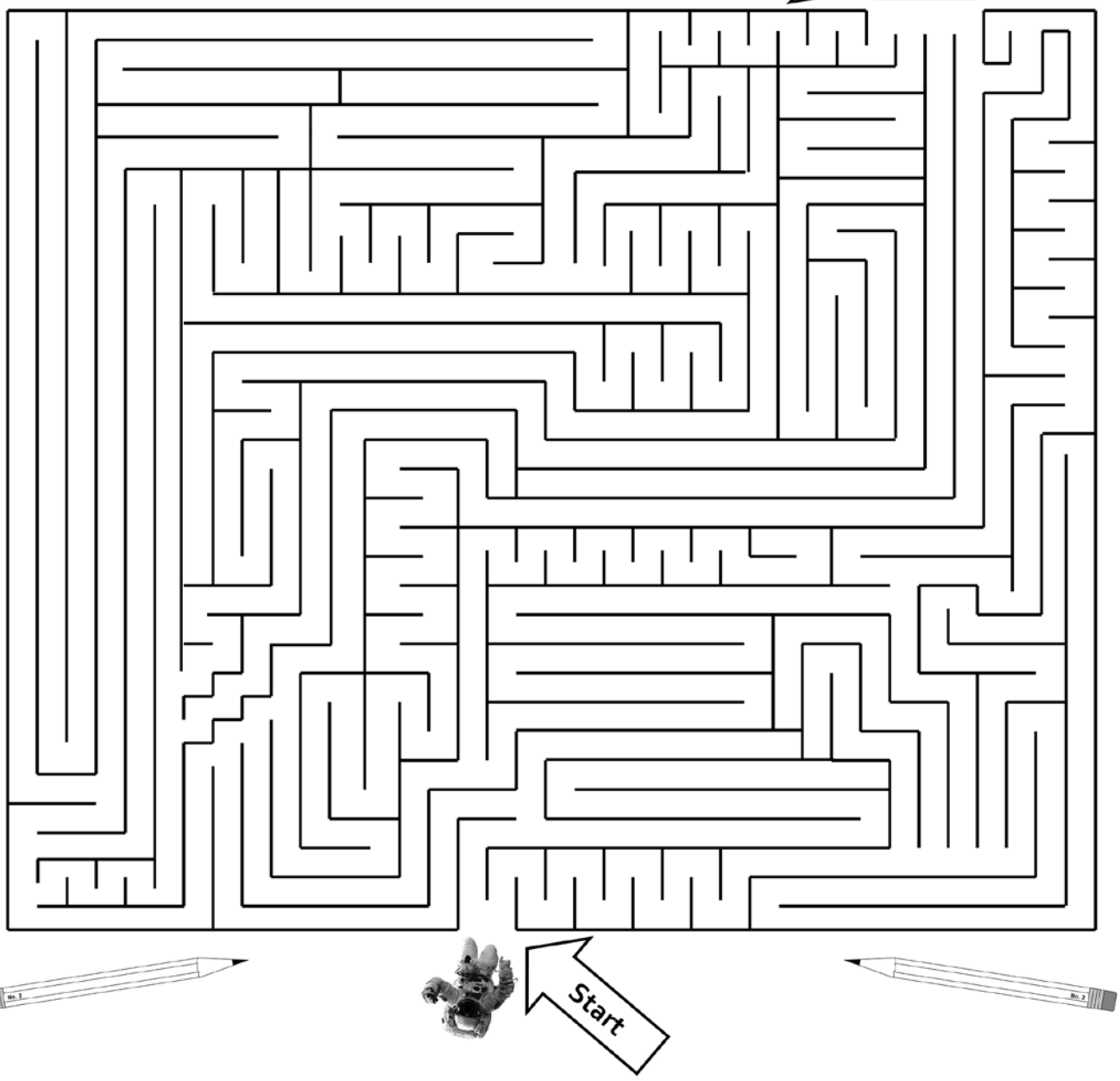
Are you ready to tackle an even bigger challenge? Go to the next page and help a crew member aboard the Space Station get back inside after a space walk!

(Solution on page 36)

a-MAZE-ing Spacewalks!

Sometimes astronauts have to do spacewalks to repair equipment or check on a science experiment outside the Space Station. The Airlock is a special module that lets astronauts in their bulky space suits go outside and come back in again. Help the astronaut get back to the Airlock!

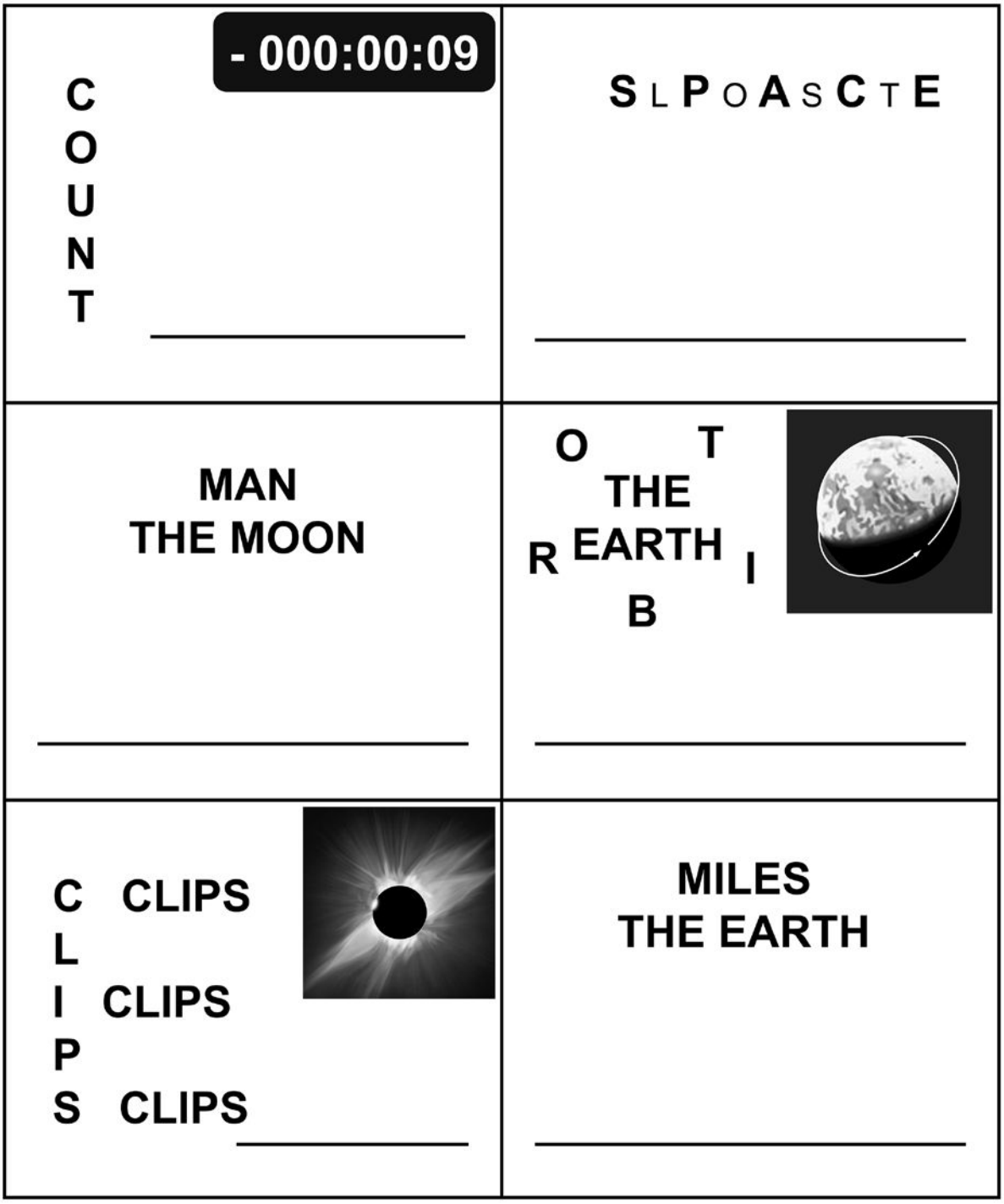




(Solution on page 36)

Space Brain Teasers

Each alphabet letter puzzle below represents a well-known, space-related word or phrase… see if you can figure out what they say! Write each word or phrase on the line provided in its box. Three puzzles have visual clues to help you!



(Answers on page 36)

Space Station News Word Fun!

Even astronauts goof around sometimes and have fun while on the Space Station. Try this with a friend or several friends: Call out each part of speech (noun, verb, and so on) as it appears in the unfinished news story below, then write the first answer that you hear back in its blank space. Do this until all the blank spaces have been filled in, then read the news story aloud!

NASA is launching a new spacecraft, nicknamed 'The Wild

_____ ,' to the Space Station. This spacecraft will carry
NOUN

lots of _____ and _____ for Station's crew to eat,
PLURAL NOUN PLURAL NOUN

and some _____ for them to wear. The spacecraft will launch
PLURAL NOUN

on the new ' _____ ' rocket, the most _____ vehicle
NOUN ADJECTIVE

ever built by the _____ Aerospace Company, located in the
NOUN OR ADJECTIVE

city of _____ _____ . This rocket has revolutionary
ADJECTIVE OR VERB NOUN

new engines that run on ordinary liquid _____ and
NOUN

_____ _____ . The first astronauts to fly in this
ADJECTIVE PLURAL NOUN

spacecraft, _____ and _____ , seem excited
NAME OF FRIEND NAME OF ANOTHER FRIEND

about their mission, saying the most challenging thing about it will

be when they have to _____ the _____ ,
VERB NOUN

before their spacewalk to fix Station's aging _____ .
NOUN

Mental Math Mania!

Astronauts, engineers, scientists and budget analysts at NASA need to know their numbers. Test your skills with this math square.

Instructions:

1. Fill in the missing numbers to complete the math square.
2. Use the numbers 1 through 9 to complete the equations.
3. Each number is used only once.
4. Each row is a math equation. So is each column.
5. Three numbers are done for you.

	x	9	-		5
+		+		x	
	-		/	2	2
+		+		/	
7	x		-		13
13		18		1	

Hint: Remember that multiplication and division are performed before addition and subtraction.

(Solution on page 36)

Is it an Insect?

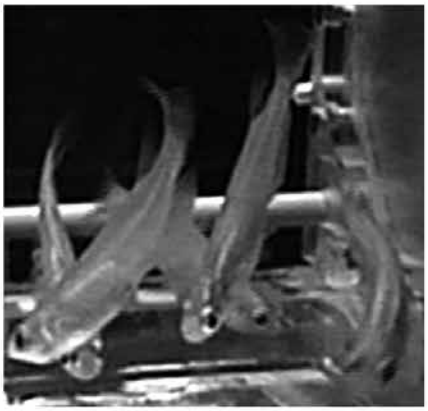
Many onboard experiments involve insects. Can you tell an insect apart from other living creatures? Give it a try! Circle YES or NO under each picture to show whether or not you think it is an insect.

YES NO

YES NO

YES NO

YES NO



YES NO

YES NO

YES NO

YES NO

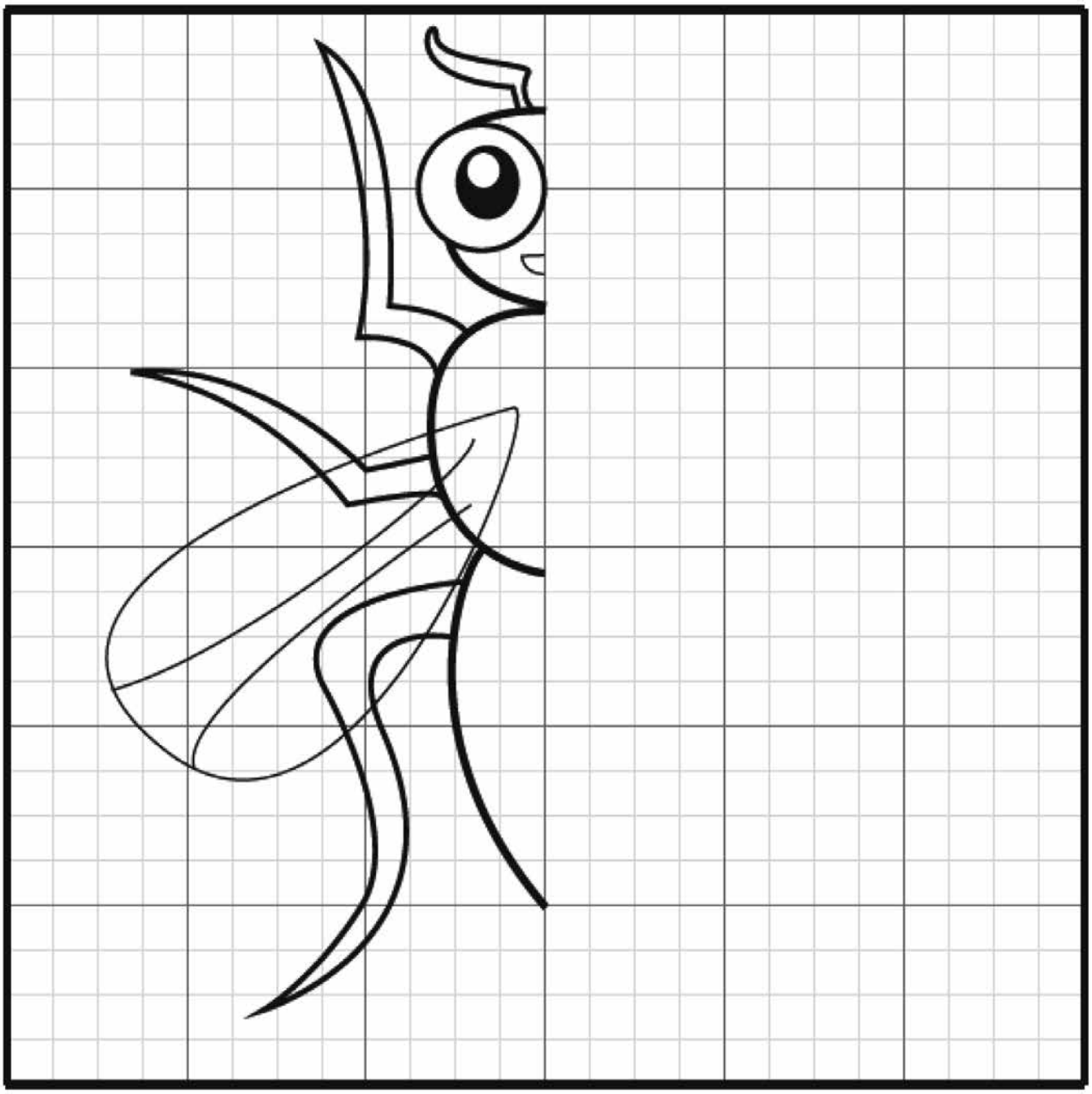
YES NO

Hint: Insects have three body segments, three pairs of legs (six legs total), two antennae, an external shell-like skeleton rather than an internal skeleton, and compound eyes made up of dozens to hundreds of little eyes!

(Answers on page 37)

Fruit Fly Observations

Here's your chance to be a NASA scientist! Below is half of a simple fruit fly blueprint. Your mission is to complete the other half of the image by drawing the mirror of the image present on the grid.



Hint: Count the number of blocks in the grid to make sure your dimensions are correct.

Mission Patch Meanings

Missions, or trips to the Space Station, usually have a patch designed for them that can be worn on shirts, hats, etc., to show the pride that the people involved with them feel in the important work they are doing to improve life on Earth and make it possible to explore space. Check out the sample mission patch below and the meaning of its parts, then think of a mission you would like to work on, choose a name for your mission, and design your very own mission patch for it!

Mission name:
Fruit Fly Lab 01

Mission patch parts or symbols:

Meaning of patch symbols:

Earth, as seen from orbit

The DNA molecule, building-block for all known life forms

The mission acronym (first letter of each word in its name)

The fruit fly – the focus of the mission's experiments

The Space Station, where fruit fly experiments will be done

Draw your mission's patch here – it can be any shape you like!

Your mission's name:

_____

What the symbols in your patch mean:

_____

_____

_____

_____

_____

_____

Let's Learn Some Parts of a Rocket!

We need a new way to bring people, experiments, food, clothing, and spare parts to the Space Station now that the Shuttle has been retired. Before one can design a replacement rocket, one has to know its parts – want to learn? On the diagram below, draw a line from the parts list to the corresponding parts on the rocket!

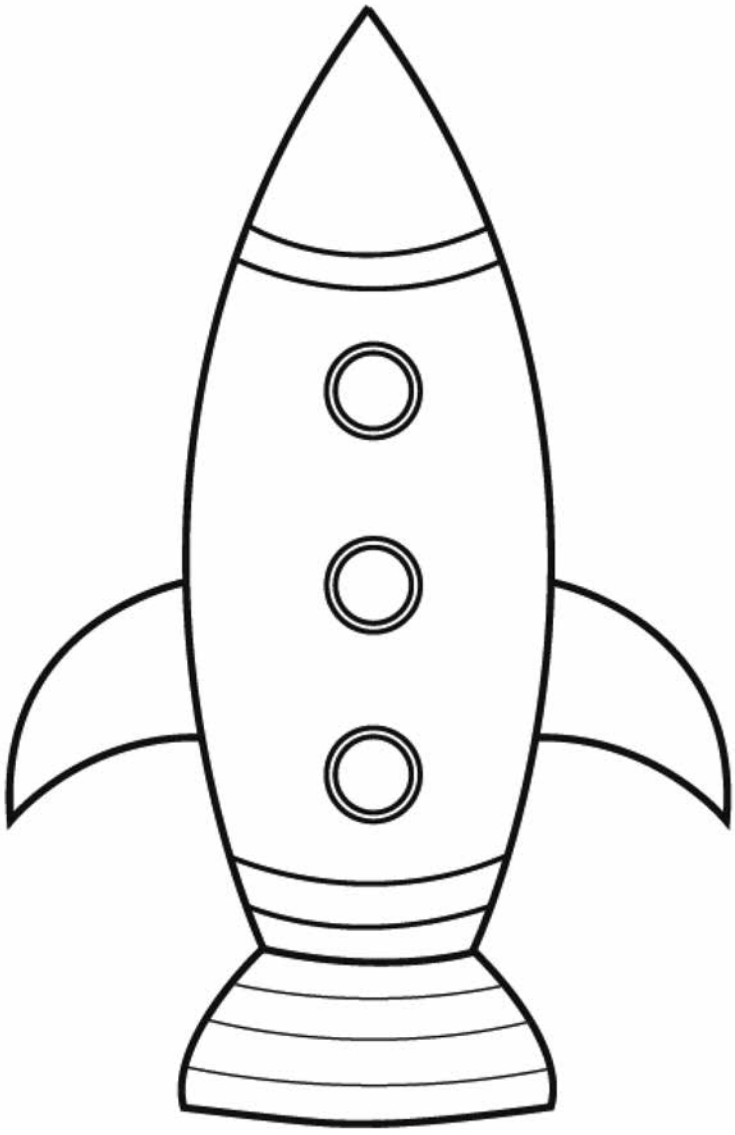
Parts List

Nose Cone

Fins

Engine

Body



Are you ready for a bigger challenge? Go to the next page to try your hand at designing America's next rocket to take food and supplies to the Space Station!

(Answers on page 38)

Design the Next Rocket to Take Astronauts to the International Space Station!

Mix and match the pieces below to design your rocket. Cut out your pieces and paste them together in the picture-box at the right, or simply draw them there. Then, when you've finished building it, name and color your design!

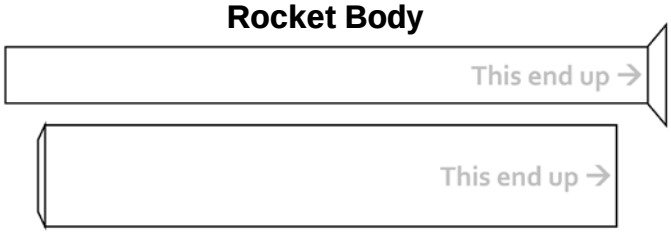
Rocket Engines

(How many of each type will you need?)

Liquid fuel
(Be sure to pick a wide rocket body to hold all the fuel you'll need!)

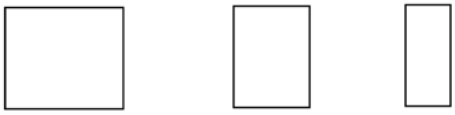
Solid fuel
(You can pick a narrow rocket body to hold the fuel if you want to!)

Rocket Body



Cargo Compartment

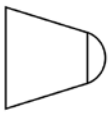
(This is where all the supplies go!)



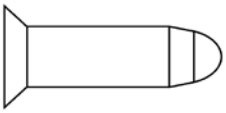
Crew Compartment

(This is where the astronauts sit!)

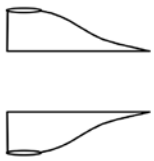
Capsule
(You'll need parachutes!)



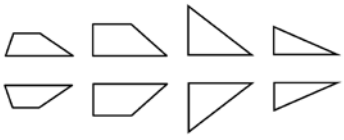
Flying Body
(You'll need wings and wheels!)



Wings



Fins



America's next rocket:

_____

Wheels or Parachutes

(These aren't seen at launch, but your rocket will need one or the other to land safely!)

☐ ← Check-mark if you're using a capsule

☐ — Check-mark if you're using wings

Not sure how this works? See examples on pages 29 and 30!

Supplying the Space Station

Several different spacecraft, designed and flown by various nations that are part of the international partnership that makes the Space Station possible, make regular visits to the Space Station, delivering astronauts, spare parts, and critical supplies like food, water, and fuel. Some, like Russia's Progress and Soyuz, have been in service many years. Others, like Japan's H-2B Transfer Vehicle (HTV) and Europe's Automated Transfer Vehicle (ATV), were developed especially for the Space Station. Others still, like the United States's Dragon and Cygnus, are brand new. One, the Space Shuttle, has been retired after serving for many years as the Station's main construction and supply vehicle.

Unscramble the mixed up letters below to identify the many spacecraft that have kept the Space Station supplied, then do the same for the names of the nations or group of nations that provided them. Lastly, draw lines to connect each spacecraft to its provider!

(Hint: Some providers have produced more than one spacecraft!)

Spacecraft

UGCYSN _ _ _ _ _ _

SEGRROSP _ _ _ _ _ _ _ _

SSCAPULTETHE _ _ _ _ _ _ _ _ _ _ _ _ _ _

2HABTHECELFSVRIRNE _ - _

NOGRDA _ _ _ _ _ _

YOZSU _ _ _ _ _

VCIAALTEFSRHUTEENMOTEADR _

Providers

USRSAI _ _ _ _ _ _

TTANDIUEESTS _ _ _ _ _ _ _ _ _ _ _ _

ORUEEP _ _ _ _ _ _

AAJNP _ _ _ _ _

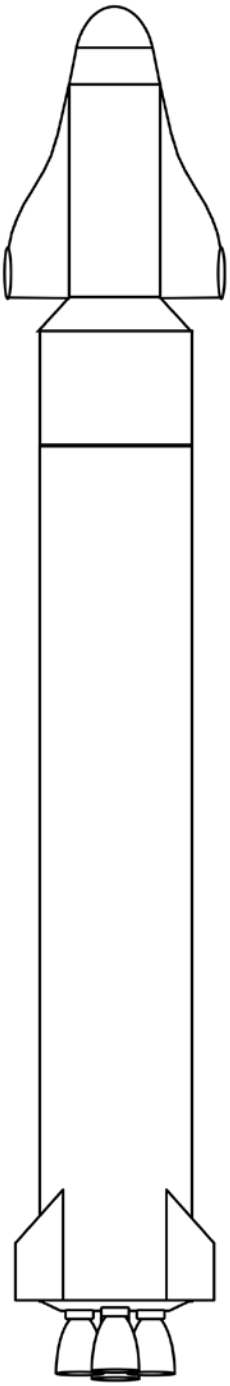
(Answers on page 38)

Fun Facts

Here are some more things about our International Space Station you might not have known… tell your friends! Amaze your family!

Did you know…

- Space Station's living space is about the size of a 6-bedroom house
- Weightless Station astronauts sleep in any direction with no bed, just a sleeping bag strapped to a wall so they don't float around
- The Station's weightless environment means toilets have to be specially designed to work like vacuum cleaners and suck wastes in, recycle most of the water, and seal the rest in plastic bags
- Weightlessness also makes showering a challenge – water droplets can float anywhere and really damage computers, machines, and so on – so astronauts rub water and soap on and sponge it off again
- There are about 8 miles of wiring in the Station's electrical system
- Over 100,000 people around the world worked together to make the Space Station possible
- Astronauts have to exercise hard for at least 2 hours every day to keep their muscles and bones from getting too soft, which is what they would otherwise do without having gravity to work against
- Over 50 computers keep the Station's systems working
- Astronauts, when they're enjoying what little free time they get, often spend it reading, listening to music, emailing or otherwise keeping in touch with their families and friends on Earth, or taking pictures of Earth and space out the windows
- Research on Station continues to make discoveries important to us here on Earth including, recently, a possible vaccine for salmonella, a food-poisoning illness that is especially dangerous to children



Example rocket 1 (p. 27)

Want to Learn More?

Check out some of these awesome websites!

For Space Station viewing times (and where to look to see it) go to:

http://spaceight.nasa.gov/realdata/sightings/index.html

To learn more about research being done on the Space Station, try:

http://www.nasa.gov/mission_pages/station/research/index.html

http://www.nasa.gov/mission_pages/station/research/ops/research_student.html

Space agencies' websites
(most of these are especially for kids!):

NASA (United States):

http://kids.earth.nasa.gov/

http://www.nasa.gov/audience/forkids/kidsclub/ash/index.html

http://quest.nasa.gov/index.html

http://www.nasa.gov/audience/forstudents/index.html

http://solarsystem.nasa.gov/kids/index.cfm

http://spaceplace.nasa.gov///redirected/

CSA (Canada):

http://www.asc-csa.gc.ca/eng/iss/default.asp

ESA (Europe):

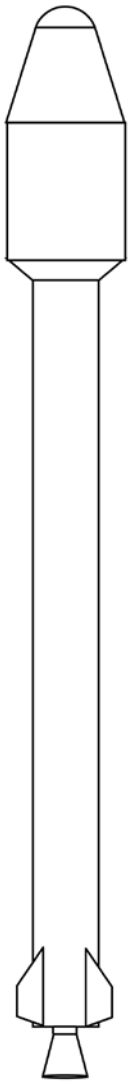
http://www.esa.int/esaKIDSen/SEMZXJWJD1E_LifeinSpace_0.html

JAXA (Japan):

http://iss.jaxa.jp/kids/en/index.html

ROSCOSMOS (Russia):

http://www.en.federalspace.ru/

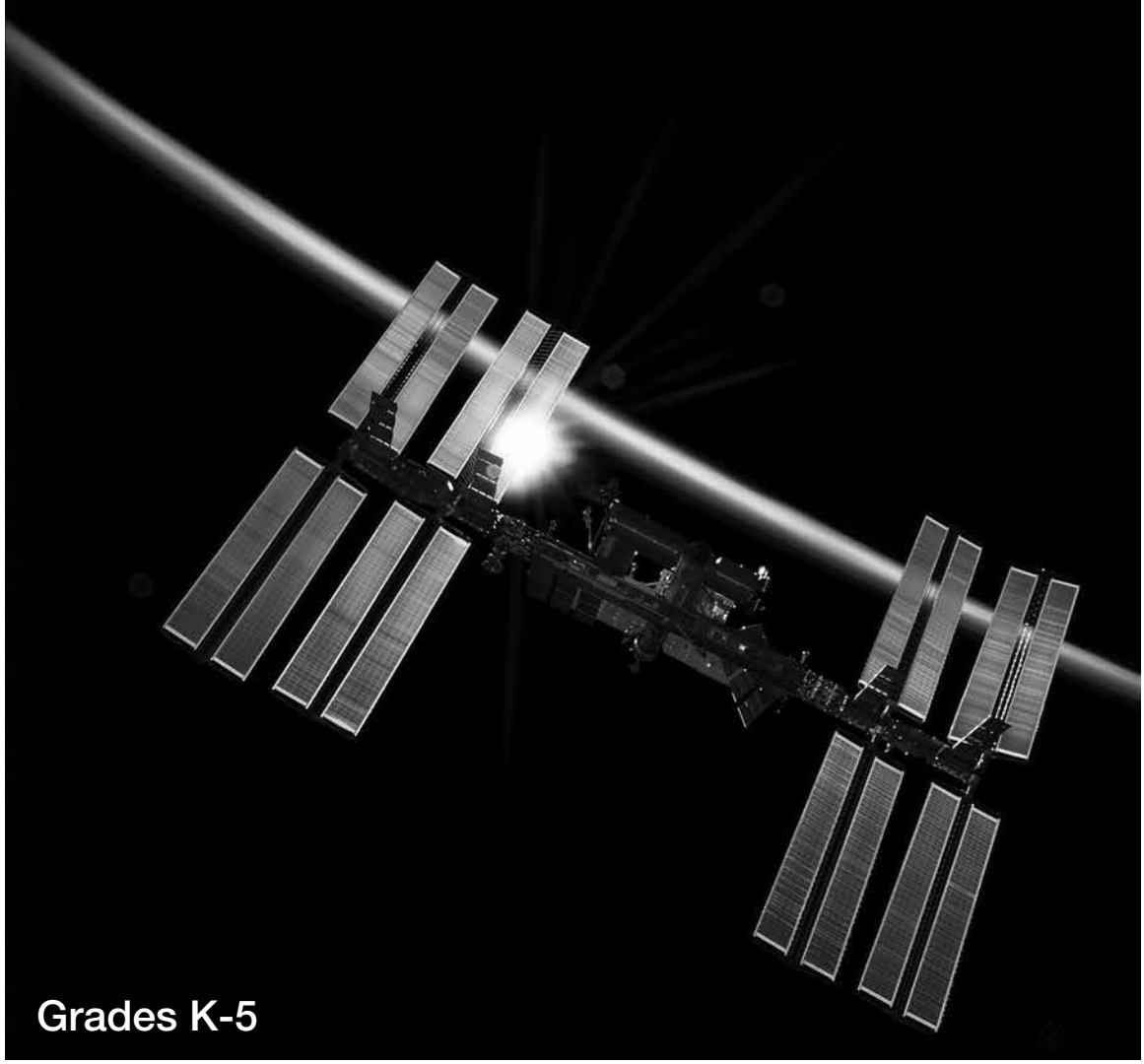


Example rocket 2 (p. 27)

We hope you had fun learning about the amazing International Space Station and that you'll visit us at NASA online real soon!

Answer Key

International Space Station Activity Book



Grades K-5

Space Symbols and Agency Acronyms

NATIONAL AERONAUTICS & SPACE ADMINISTRATION

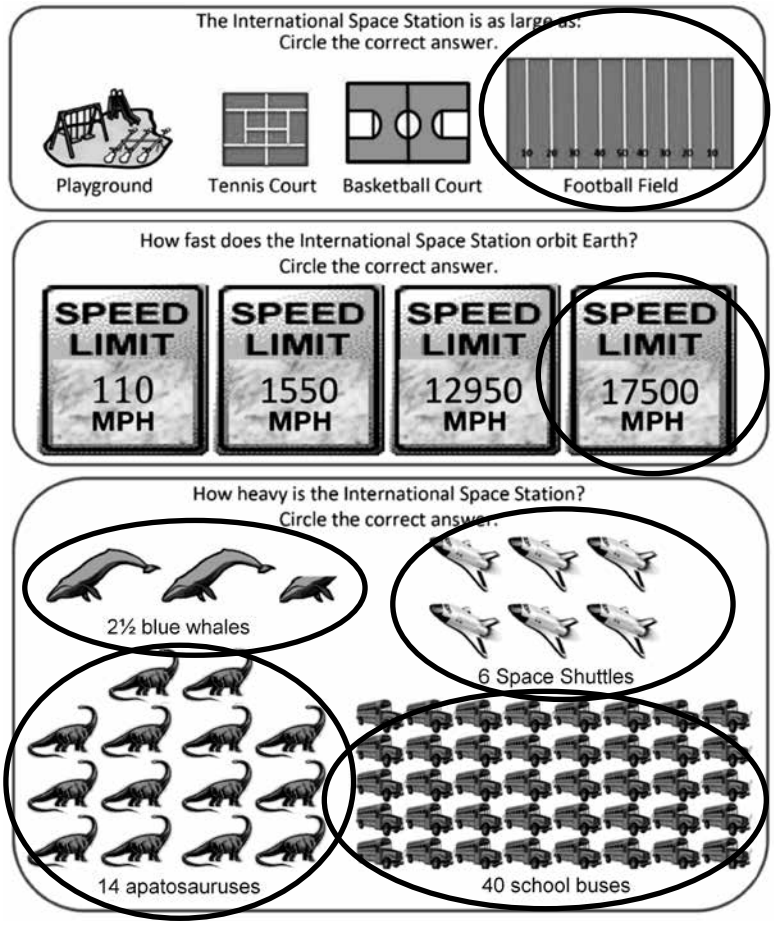
October 1, 2018 marks NASA's 60th anniversary!

The States of NASA

1) California
2) Texas
3) Mississippi
4) Alabama
5) Florida
6) Ohio
7) Virginia
8) Maryland
9) Louisiana

Bonus: District of Columbia

Did You Know...?



Note: All four answers to the last question are true!

International Space Station Parts

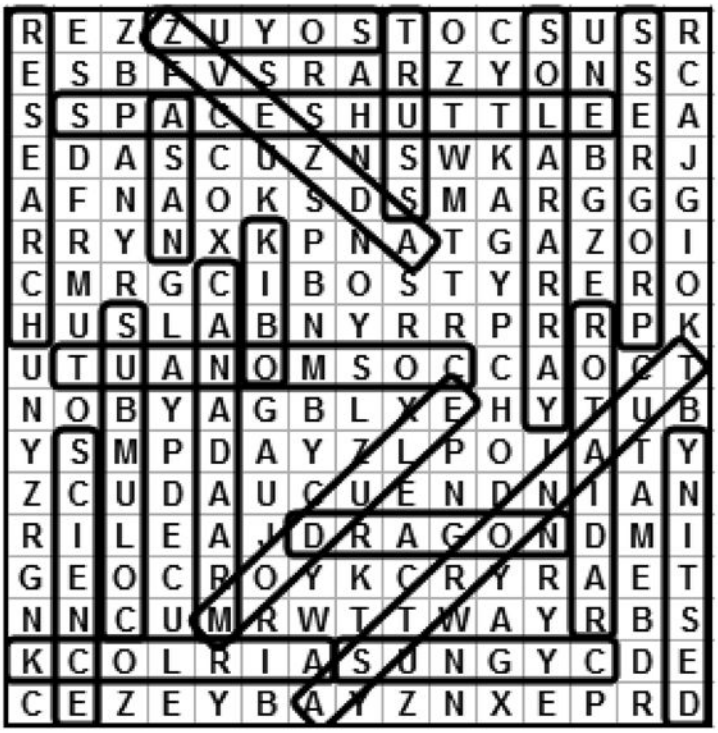
__6__ **Solar arrays** (8 pairs) make electricity from sunlight and store it in batteries
__7__ **Truss** (big beam) holds solar arrays, radiators, and often the big robotic arm
__2__ **Radiators** get rid of heat from solar arrays and modules to keep things cool
__9__ Canada's big **robotic arm** moves people, parts and even spacecraft around
__8__ **Modules** (big soup can shaped parts) are where the astronauts live and work
__3__ **Soyuz** and **Progress** (Russian spacecraft) bring people, supplies and fuel
__5__ **ATV** (European spacecraft) is designed to bring supplies and fuel
__4__ **HTV** (Japanese spacecraft) is designed to bring supplies and spare parts
__1__ **Dragon, Cygnus** (American spacecraft); designed to bring people, parts, and/or supplies

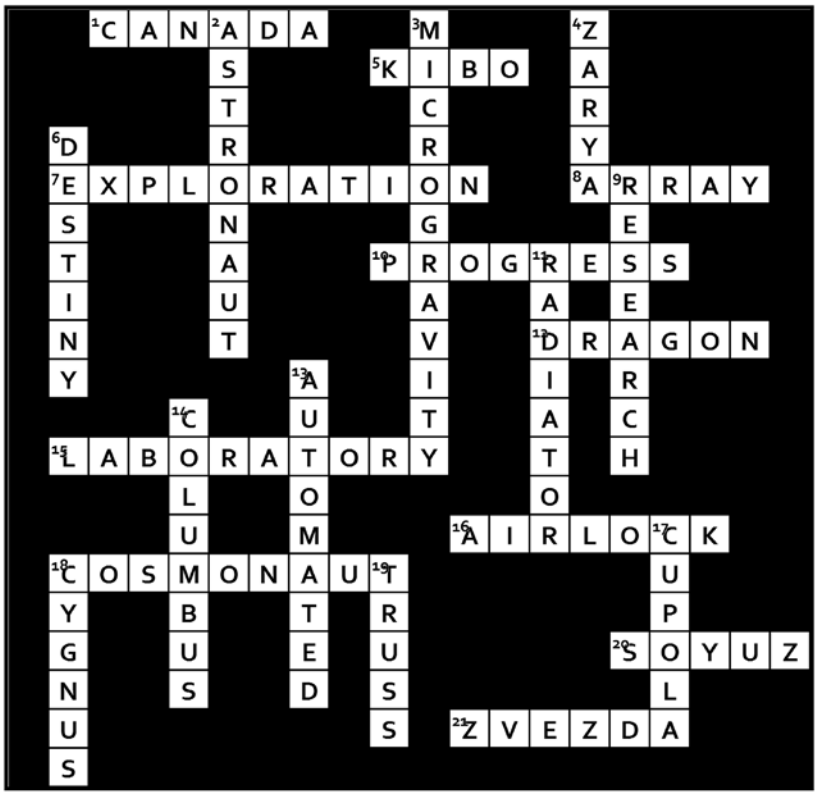
Letter Shuffle

These are some sample words you could make from the letters in "SPACE STATION." How many more were you able to find?

space	act	nose
pace	past	note
no	cat	pan
tips	noise	snaps
ace	pin	toe
ape	pane	ants
cap	cane	ices
ten	tap	nice
tin	nap	pain
capes	nest	pants

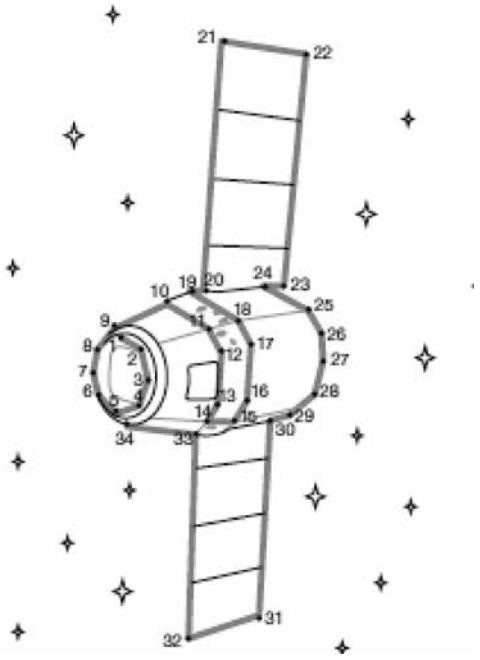
Welcome to the Space Station Word Search!



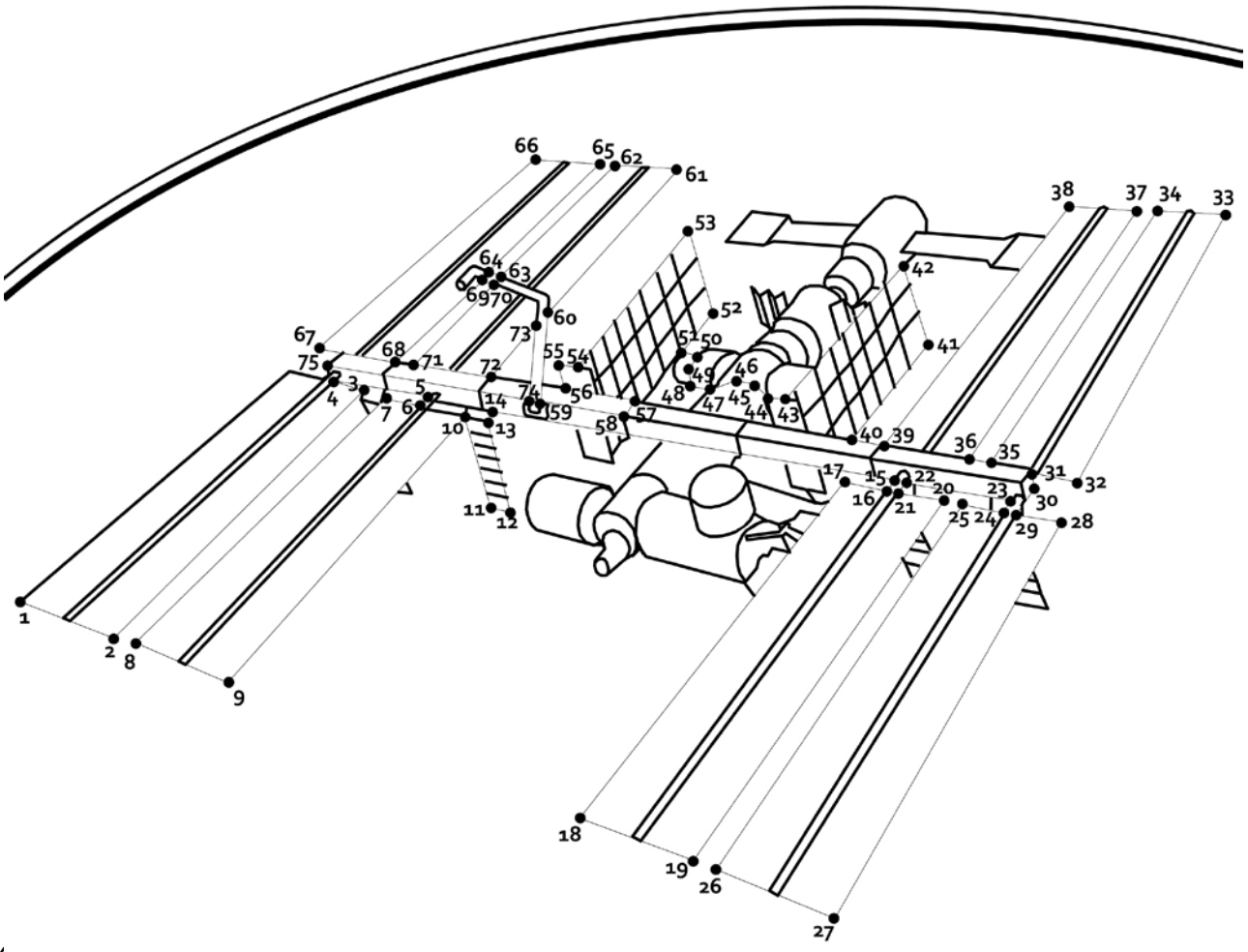


Let's do the Space Station Crossword Puzzle!

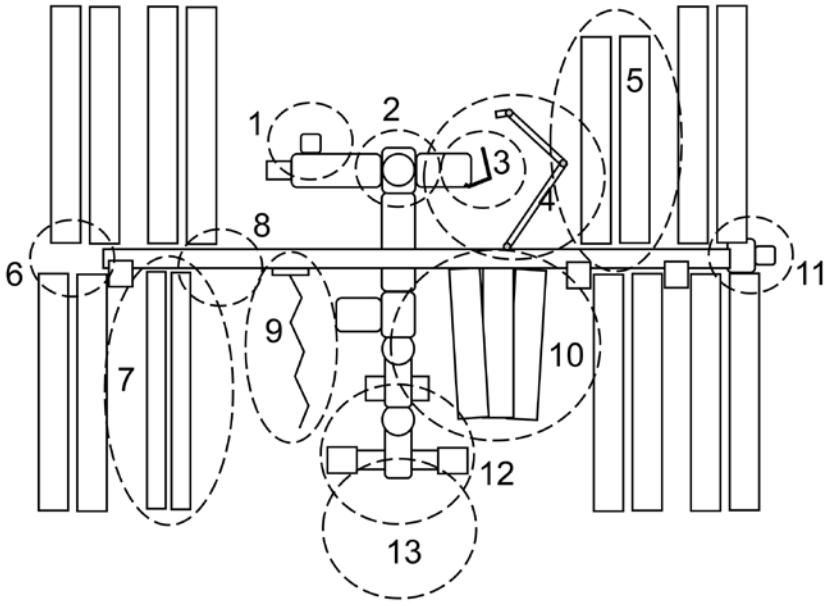
Connect the Dots to Draw a Space Station Transport Vehicle!



Draw the International Space Station!

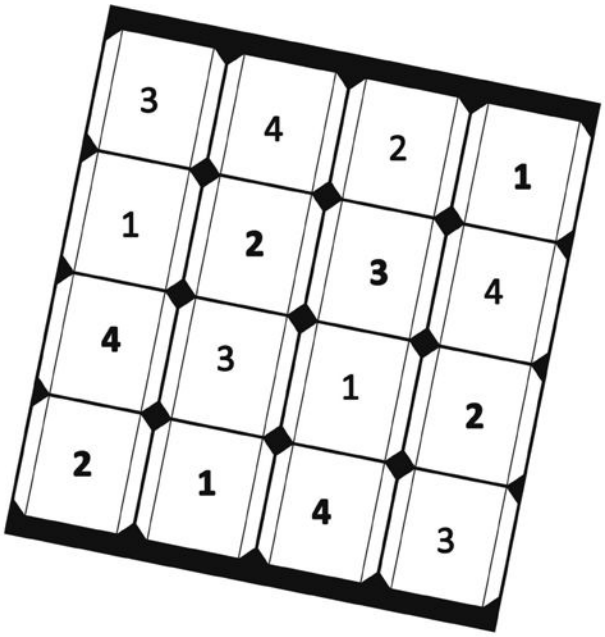


What's Different?

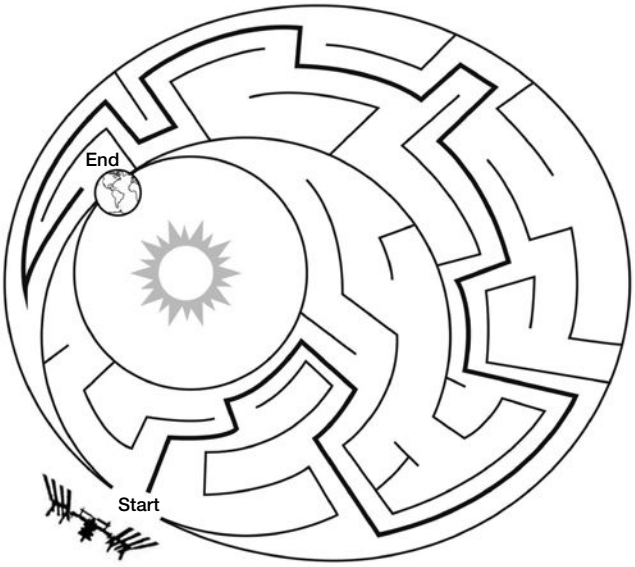


1. Docking port moved to Kibo
2. Kibo's storage module moved to the Node
3. Japanese robotic arm moved to the Columbus module
4. Canadarm2 moved to the truss
5. Solar array got shorter
6. Truss got shorter
7. Solar array got skinnier
8. Radiator is missing
9. Radiator rotated to be edge-on
10. Radiator is on backwards
11. Airlock moved to end of truss
12. Service Module's solar array 'wings' got shorter
13. Progress supply ship is gone

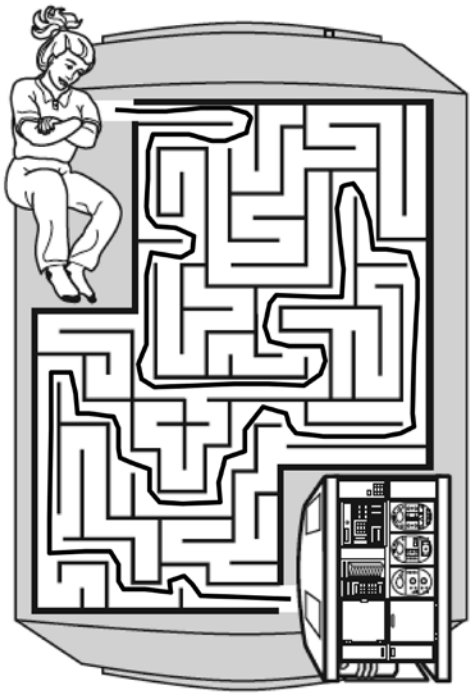
Space Sudoku!



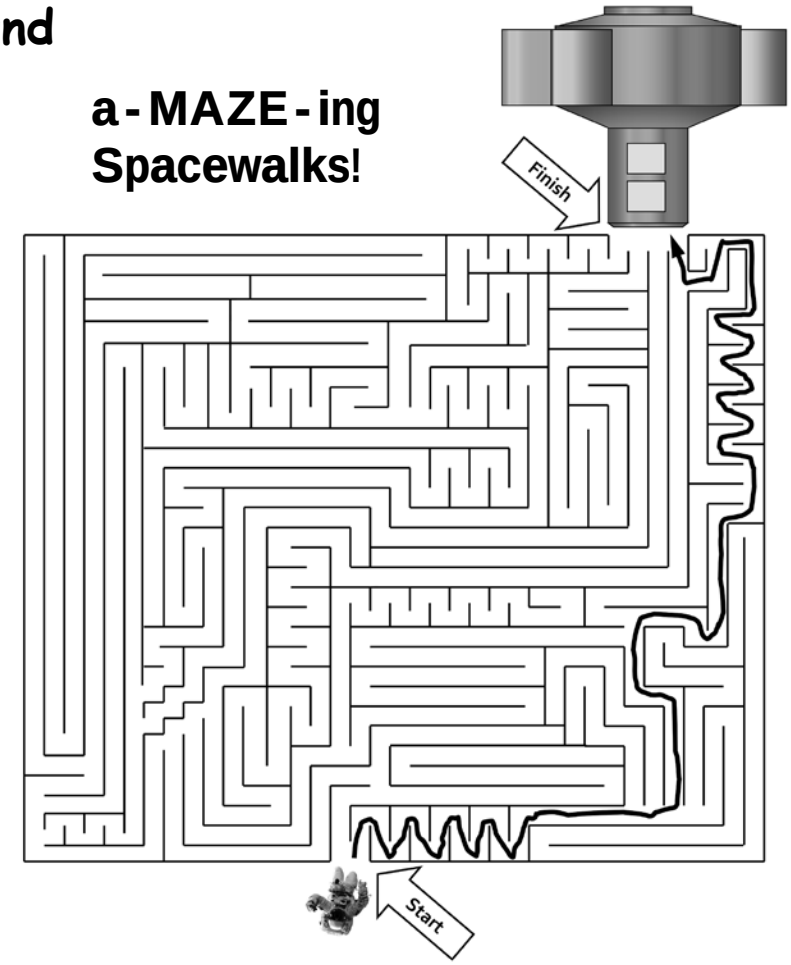
Returning to Earth!



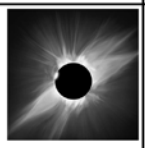
Finding One's Way Around on the Space Station!



a-MAZE-ing Spacewalks!



Space Brain Teasers

C O U N T - 000:00:09 COUNTDOWN	S L P O A S C T E LOST IN SPACE
MAN THE MOON MAN ON THE MOON	O T THE R EARTH I B  ORBIT AROUND THE EARTH
C CLIPS L I CLIPS P S CLIPS  ECLIPSE	MILES THE EARTH MILES ABOVE THE EARTH

Mental Math Mania!

1	X	9	-	4	5
+		+		X	
5	-	6	/	2	2
+		+		/	
7	X	3	-	8	13
13		18		1	

Is it an Insect?

YES (NO)

YES (NO)

(YES) NO

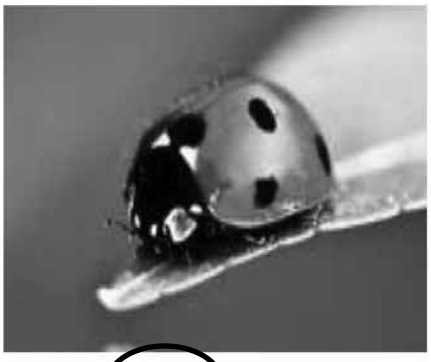
(YES) NO

YES (NO)

(YES) NO

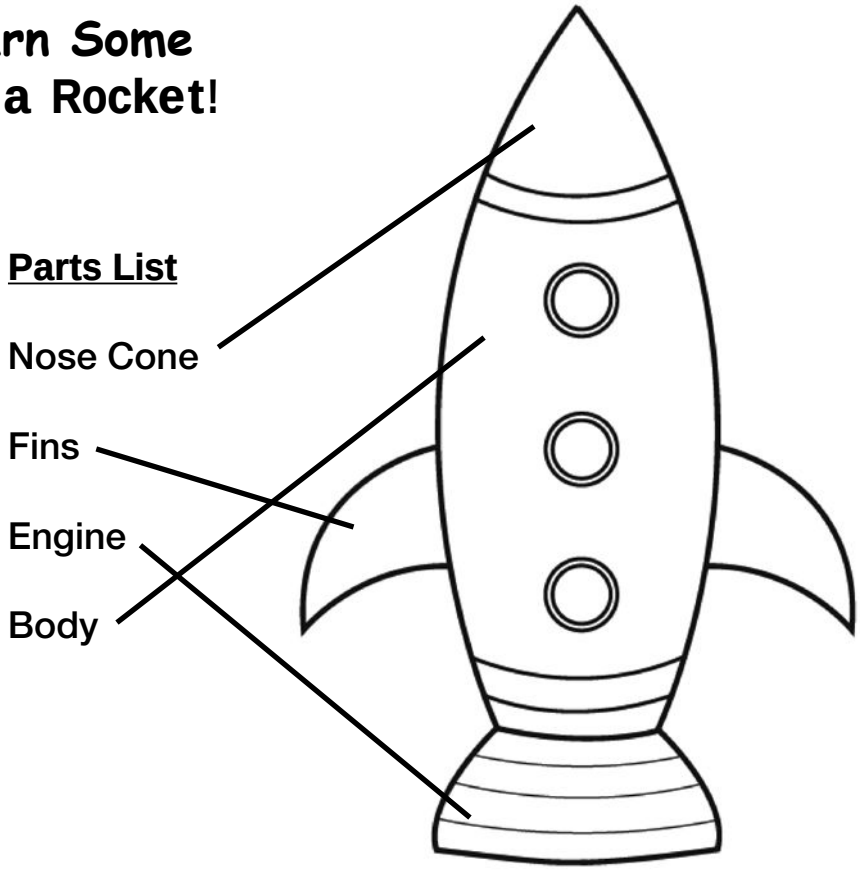
(YES) NO

YES (NO)



(YES) NO

Let's Learn Some Parts of a Rocket!



Supplying the Space Station

Spacecraft

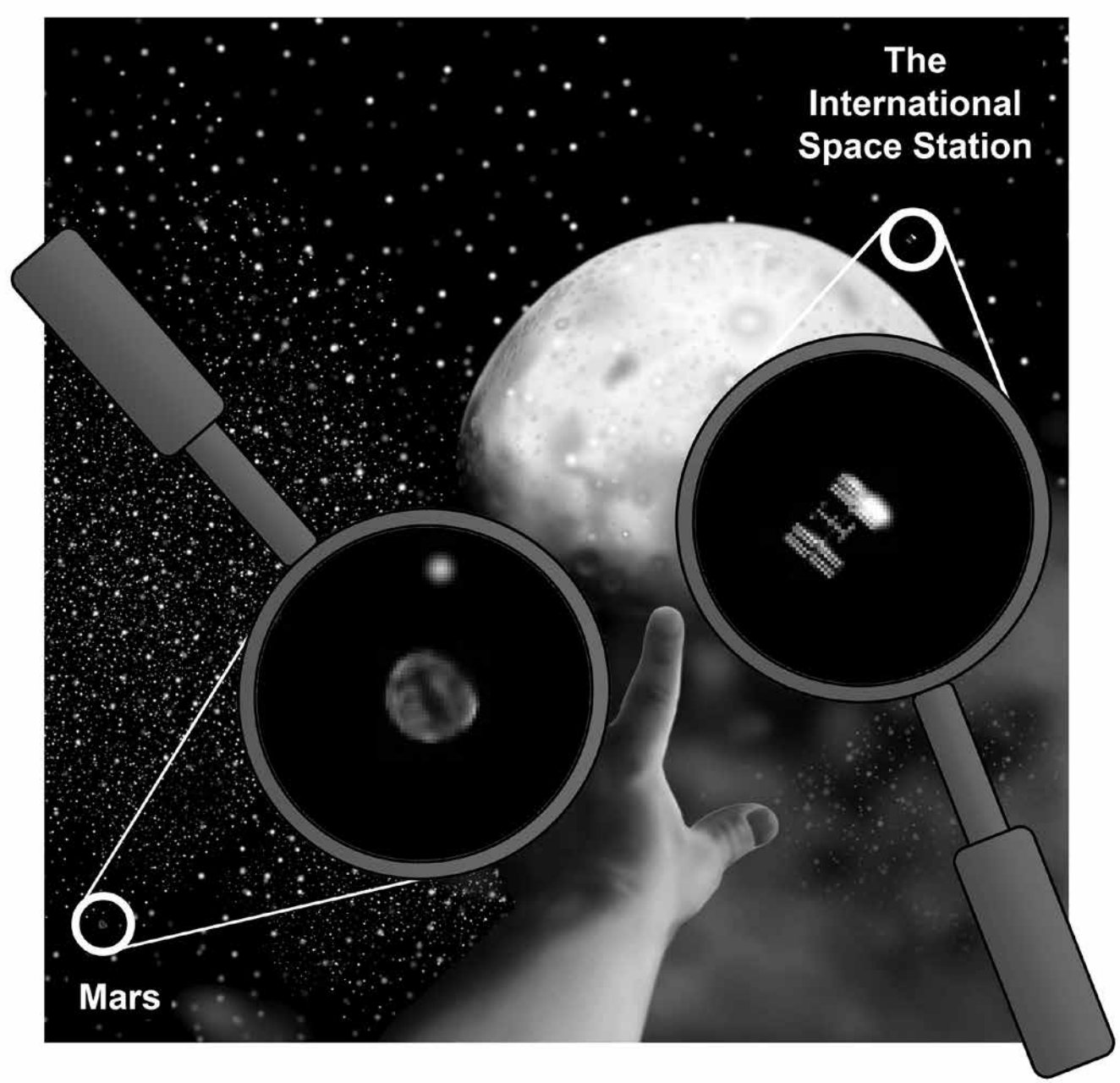
UGCYSN	CYGNUS
SEGRROSP	PROGRESS
SSCAPULTETHE	SPACE SHUTTLE
2HABTHECELFSVRIRNE	H-2B TRANSFER VEHICLE
NOGRDA	DRAGON
YOZSU	SOYUZ
VCIAALTEFSRHUTEENMOTEADR	AUTOMATED TRANSFER VEHICLE

Providers

USRSAI	RUSSIA
TTANDIUEESTS	UNITED STATES
ORUEEP	EUROPE
AAJNP	JAPAN

Back Cover

Here's the solution to back cover puzzle – and then some! Did you find the Space Station? As a secret bonus, the puzzle features another Earth neighbor – Mars! If while searching for the Space Station you noticed that red blob & wondered about it, give yourself an extra pat on the back – noticing what you weren't looking for is how discoveries are made!



Some nights the Moon and stars seem so big and close that it feels like you could almost reach out and touch them, don't they? Now there's a new star in the sky – the Space Station – and it will help us reach the Moon, Mars, and maybe even the stars someday! Can you find it in the picture below? Look carefully!

(Answer on page 39)