hi thank you patricia hi we were talking

with the fifth grade students have Barry

elementary and Houston Texas hi kids

welcome to the International Space

Station flight control room I understand

you guys have a lot of questions about

flying in space and it's a good thing

because today we have astronaut Mike

Foreman here with us he is flown twice

in space aboard the Space Shuttle on

sts-1 23 and 129 welcome and thank you

for joining us great to be here amigo

great we're ready for your questions

let's go hello my name is Nicholas and
my question is how long do a cenar stay

in space yeah it's good question

Nicholas we have astronauts on the space station now that will stay six months up

there on my to Space Shuttle missions I stayed in space for 16 days on the first one and about 11 days on the second one

so I wasn't at the space station for as long as our astronauts are today but we train them to go up there and live

and work for six months at a time so

it's kind of a long time thank you hello

my name is Lara my question is do you like your career it's interesting can
you say that you do you like your career

is interesting oh yes I i love my career

I think I have the best job in the world

because i get to train to be flying in

space and get to go to space and do

space walks outside the space station in

the space shuttle and look at the earth

from 240 miles high it's pretty cool

it's great child and i get to talk to

people like you i get to relay my

stories back to people here on the

ground and tell them about what I did so

it's a lot of fun he's got the best job

in the world and off the world next


question

44
00:02:10,219 --> 00:02:15,780
hello my name is Aaron my question is

45
00:02:13,139 --> 00:02:19,709
was the most dangerous job and NASA and

46
00:02:15,780 --> 00:02:21,569
why do you do it Eric I'm not sure what

47
00:02:19,710 --> 00:02:24,030
the most dangerous job at NASA is you

48
00:02:21,569 --> 00:02:26,129
know people some people might say that

49
00:02:24,030 --> 00:02:29,189
astronauts have a dangerous job and I

50
00:02:26,129 --> 00:02:31,289
think you know NASA does a really good

51
00:02:29,189 --> 00:02:35,699
job of making sure that our jobs are

52
00:02:31,289 --> 00:02:37,349
safe as possible so we do as much as we

53
00:02:35,699 --> 00:02:39,060
can when we were flying the Space

54
00:02:37,349 --> 00:02:41,909
Shuttle we did as much as we can to make

55
00:02:39,060 --> 00:02:43,530
those vehicles safe to fly and we did a

56
00:02:41,909 --> 00:02:45,030
great job I think at that we have some

57
00:02:43,530 --> 00:02:46,680
really smart people here at NASA that
take really good care of the astronauts

so there's probably some more dangerous jobs at NASA than an astronaut thank you

hello my name is Christian my-my

question he had the space it works how

do the spaces work yes I'm not sure I

follow Oh spacesuits yes ah ok that's a

good question Christian ok we have a

couple of different kinds of spacesuits

that we wear when we launch whether it

be on the space shuttle or the Soyuz

capsule launching from Russia to the

space station our astronauts wear a suit

that protects them in case we lose the
pressure inside the space capsule or

space shuttle so those suits are to

protect us while we launch and when we

come back now if we go outside the space

station and the Space Shuttle on a

spacewalk then we wear a completely

different suit and that’s what we call

an emu which stands for extra vehicular

Mobility unit big long word for a

spacesuit but that suit is like a

one-person spaceship because you get in

that suit and you go outside the

spaceship that you’re it came up in and

it gives you oxygen and it keeps you
cool and it protects you from the

environment outside the spaceship so

that's how the space that's a little bit

about the spacesuits that we wear thank

you

my name is your mo my question is do you

need to exercise a lot of space we do

exercise a lot both down here on earth

when we're preparing to go to space and

while we're in space and the reason that

we exercise a lot in space is because

because we're living in a weightless

environment up there which means you

know there's no gravity we don't get the
same our bones don't get the same
workout that they do down here on earth

when we're walking around today our
bones are getting a little bit of a
workout because they have to support our
body weight because of the gravity but
in its base we don't have that gravity
so we need to exercise our muscles to
keep our bones rebuilding themselves and
make sure that bones stay as strong as
they were when we left for space because
we don't come back and have weaker bones
so astronauts spend about two and a half
days two and a half hours a day while
they're in space exercising every day
and they have several ways to do that

exercise there are several different

pieces of equipment in that space jam

you want to talk about that yeah they

actually have a couple of different ways

to exercise they have a treadmill which

is kind of funny because a treadmill you

have to run on a treadmill but if

there's no gravity you just float off of

the treadmill but they have a harness

that connects them down to the treadmill

so that they don't float away from it

while they're running on it they have an

exercise bike so they can exercise that
way and they also have a resistive

exercise device which is like lifting

weights so they can't lift weights in

space because the weights went way

anything either but they have an

exercise device that's sort of like

rubber bands almost you push against it

in the rubber bands provide the

resistance that exercise your muscles we

have another question yeah

hello my name is Glenn open and my

question is how do you control the

spaceship without the buttons to go at

the right distance to the right place ah
well we have really smart people at NASA

that figure out where we need to go in

our spaceship to get to the space

station so they figure that all out and

they put it into the computer and the

computer kind of knows how we get there

and when we get close enough and we can

see the space station then we can take

over and fly the spaceship in to a

docking a lot of those smart people are

here in this room right now this is

again the International Space Station

flight control room where the team it's

monitoring the systems aboard the space

monitoring
station on a daily basis 24-7 next

00:07:03,879 --> 00:07:13,629
question my name is Andrew my question

00:07:11,860 --> 00:07:16,930
is how do you keep track of the space

00:07:13,629 --> 00:07:20,680
shuttles why are there in space how do

00:07:16,930 --> 00:07:22,660
we keep track of them well we have those

00:07:20,680 --> 00:07:26,530
smart people at NASA that keep track of

00:07:22,660 --> 00:07:28,810
where they are so it's we couldn't get

00:07:26,529 --> 00:07:30,519
lost in space because we have smart

00:07:28,810 --> 00:07:31,990
people down here at NASA that are taking

00:07:30,519 --> 00:07:33,789
care of us and making sure we're going

00:07:31,990 --> 00:07:36,460
in the right direction and we're getting

00:07:33,790 --> 00:07:37,810
to where we need to go and people here

00:07:36,459 --> 00:07:39,430
in this mission control room are

00:07:37,810 --> 00:07:41,228
controlling the space station right now

00:07:39,430 --> 00:07:43,240
that's going around the earth every 90
minutes so they're making sure that the space station stays at the right altitude keeping it up as high as it needs to be to stay in that orbit and keeping going in the right direction and if you look just behind us you can see a map that is the the map where we can keep track of where that space station is at any given time next question hi my name is also insulting my question is how the Union spaces everything floats how do we eat in space well I you have to be careful we we have really good food that they send along with us to
space so it's a good thing when we get to eat we open the packages very carefully so that we don't shake the food and it flowed out so but mostly it stays in the package pretty well if you don't shake it around then you can use a fork or a spoon to reach in and get a bite at a time and eat it that way I know on my first space shuttle mission I had some granola and you know what granola is granola's kind of crumbly and it makes little little chunks of brand and things like that I got tired of that because every
time I open that it seemed like some of it would float out and I would have a mess and I would have to clean up so I didn't take granola on my second mission because it was too messy thank you and my question is how do you keep your food and supplies from going back without a refrigerator or cookies well we do cook it we have an oven we don't have a refrigerator so it has to be food that won't go bad in space some of it is dehydrated so the dehydrated food we keep dry in the package until we are ready to eat it and then we would add
water and if we needed to heat it up say

00:09:44,600 --> 00:09:50,720
it was oatmeal you add water to make it

00:09:48,769 --> 00:09:53,000
oatmeal and then you heat it up so that

00:09:50,720 --> 00:09:55,759
it's warm like you're used to eating

00:09:53,000 --> 00:09:59,870
oatmeal and then we would eat it but

00:09:55,759 --> 00:10:04,149
some food that we take is we call

00:09:59,870 --> 00:10:06,440
shelf-stable which means it has

00:10:04,149 --> 00:10:09,019
preservatives that keep it from going

00:10:06,440 --> 00:10:10,730
bad inside the package and some of it is

00:10:09,019 --> 00:10:13,519
like the food that our troops eat in

00:10:10,730 --> 00:10:15,080
Afghanistan and Iraq and we call those

00:10:13,519 --> 00:10:17,990
meals ready to eat that's what the

00:10:15,080 --> 00:10:20,060
soldiers carry and we would eat the same

00:10:17,990 --> 00:10:22,430
kind of food that they eat which is also

00:10:20,059 --> 00:10:24,049
really good typically we would just put
in the oven for a while to heat it up
and then eat it

hello my name is Rebecca and my question
is how do you feel after a long trip in
space when your attention well after a
trip in space I think long or short
you're always happy to get back to earth
because there are some things that you
miss in space like we don't get to take
a shower in space so when you come back
from space you're ready to take a shower
and we don't have we have good food but
we don't have things like hamburgers or
pizza so you know you want to have
some regular food again you want to have a hamburger or pizza so it's always good
to be back so everybody's happy to be back the way you feel when you get back
is at first because you're used to living with no gravity up in the space
when you come back you first feel very heavy because your body is getting used
to the gravity down here on earth again but that goes away pretty fast what doesn't go away as fast is your sense of balance because we have a thing in our inner ear called a neuro vestibular system and that's what tells us you know
right now that I'm tipping over because there's a little sensor in there that sends a signal to my brain and tells it you know I'm tilted but in space since there's no gravity for that sensor to use to tell it where it's where it is our brains don't get that signal for a while and we come back and then that neuro vestibular system sort of has to turn back on and takes a couple of days before our sense of balance is back to one hundred percent

hello my name is ariela my question is how can you repair equipment in space
well we trained quite a bit here at NASA

to be able to repair equipment in space

and we know things are going to break

and so we take spare parts up to the

space station to have them ready in case

something breaks and then when something

does break our astronauts can get a

little refresher course from the ground

people here in Mission Control tell them

how to repair what's broken and then

you can fix things and we did a lot of

that in my missions to the Space Shuttle

on the space shuttle to the space

station we went outside and repaired the

space station and actually helped to
build a space station at that point

hello my name is my question is do you

have to go to college and what do you

study to become an astronaut you do need

to have a bachelor's degree at least

from college um it's even better if you

have advanced college degrees so I went

to the US Naval Academy and I studied

aerospace engineering as an

undergraduate and got a bachelor of

science in that and then I went to

further school and got a master's degree

in aeronautical engineering and I'm also

a test pilot from the Navy so I've been
to a lot of college and most astronauts

you'll find have a lot of college in

their background this takes a lot of

training and so many people want to be

astronauts that it's very competitive to

become an astronaut so people with more

education more training usually have a

little bit of a leg up on the people

that don't

my question is what I'm whether you like

to do in space well I like to look

outside the window and see the earth

down below us it's amazing to see the

earth from that high up and we're going
around the earth every 90 minutes so

we're really going fast around the earth

we're going 17,500 miles an hour so the

earth goes by really fast and you get to

see a lot of different parts of the

world just from short look out the

window so that's a lot of fun and of

course since we're floating up there we

can do somersaults and we can play kind

def games with a mems and things like

that so we work pretty hard up there but

occasionally we have a little bit of

time to look out the window and take a

break and play some astronaut games I
guess my question is is it true that there were in 2030 there will be a one-way trip to Mars well we hope it in the 2030s let's see you guys will be about probably what 29 30 years old by then we're hoping that we'll have a trip to Mars planned and that will send people to Mars and bring them back and actually start to explore Mars have humans go there so maybe somebody in the room there will be one of the first people to go to Mars wouldn't that be cool

hello my name is mr. my question is how many specials please not so happened how
many people connect it I heard the first part is how many space shuttles does NASA have what was the second part how many people can fit inside one how many people can fit inside one well right now NASA has three space shuttles that actually went to space and then we have a fourth Space Shuttle enterprise that we used to practice landings when we first designed the space shuttle they weren't sure exactly how it was going to come back a land on Earth so they they built enterprise and that's what they did the practice landings in way back
when so right now yesterday they delivered the space shuttle discovery to the Smithsonian Institution in Washington DC so if you take a field trip or a vacation to Washington DC you can actually go to the Smithsonian Museum and see the space shuttle Discovery the Space Shuttle enterprise which was at the Smithsonian is on its way to New York so if you ever take a trip to New York you’ll be able to see Enterprise up in New York in New York City and eventually the space shuttle Endeavour which is the first one that
flew on will be transferred out to Los Angeles California to a museum out there so if your travels take you to Los Angeles eventually you'll be able to see endeavour which would be pretty cool for me because since I flew in space on that space shuttle I'd like to see it again and then finally the fourth one Atlantis Atlantis what was the spatial I flew my second mission on and that space shuttle is going to stay down in Florida at the Kennedy Space Center so if you ever go to Florida to visit the Kennedy Space Center you'll be able to see Atlantis
down there so this since we're not flying these space shuttles anymore it's great that we're putting in museums around the country so a lot of people will be able to see and then and appreciate what a space shuttle looks like up close thank you

hello my name is this anger and my question is how old do you need to be to go to space how do you need to be yes there's no minimum age for going to space but for our astronaut program typically people are in their 30s when they get selected to be an astronaut because of all the training that we
talked about in the earlier question

about college requirements usually

people that become astronauts are in their 30s already and then they come to NASA and they might train for two to five years before they go to space so typically astronauts that go to space are in their mid to late 30s for the first time so you guys have a little bit of time to get all of your school done and go to college and get some experience before you get to go to Mars,

thank you

hello my name is crystal my question is
why are kids not able to travel to the moon why are kids not able to travel to the moon crystal yeah well traveling in space is still dangerous maybe sometime in the future it'll be so safe and it'll be so routine it would be like getting on an airliner and flying from here to California but right now it's still considered fairly a dangerous so we wouldn't be very good parents if we let our kids fly on a space shuttle to the moon or spaceship to the moon or to anywhere in space so that's that's the reason primary reason and since we can
only launched a certain number of people into space we try to get people that know how to work all the experiments and have a lot of training first so it'll be awhile before we probably start sending kids to space and I've got another answer for that and it is because kids need to stay in school and if you stay in school that'll take you to the moon next question Talia how craziness was a freshman under on the morning it was the first man on the Moon Neil Armstrong you know where Neil Armstrong grew up in Ohio and you know where I grew up I grew.
up in Ohio so Neil Armstrong is one of

my Neil Armstrong was one of my heroes

when I was a kid growing up in Ohio

that's why I wanted to be an astronaut

hi this is Patricia I'm in the Digital

Learning Network can you guys hear me

yeah okay all right looks like we've

lost the audio we lost the picture from

from Mission Control so all right so it

looks appears as though they may have to

cut out a little early hold on just a

second I'm gonna see what happened okay

hi kids hi kids this is that amiko caldo

here the public affairs officer with

astronaut Mike Foreman in the
International Space Station flight

can you hear us yeah here

we go okay do we have another question

my question is what do you study at NASA

what kinds of things that you do there

what what do I do in my job here NASA

well aside from training to fly to space

i also have a job here on the ground

when I'm not training and right now i'll

just give you a little bit of background

NASA is working with some companies in

the United States to help them build the

next rocket it is going to take our

astronauts to the space station because
right now the guys that are up on the
space station got there on a Russian
rocket Russia is the only country that
has a rocket that can take our
astronauts to the space station and we
would like to have a rocket from the
United States to help them build a new rocket
and I work with a company called Boeing
Boeing is one of the competitors that
was working on a new rocket and so I
helped Boeing by providing them some of
my background and experience here at NASA to help them build the next rocket to take our astronauts to the space station so even that is a really cool job I really like that I enjoy spending time with all the smart people at Boeing and listening to them as they work to design the next rocket to take our astronauts to space that is all of our plan questions I know one other student did have a question that you would like to ask is that okay sure my question is um uh have you ever been in a meteor shower well sort of in space sometimes
you see more meteors coming through our

atmosphere upper atmosphere it seems

like then then when we're down here on

earth maybe because we're up there and

we're looking out the window more and we

see we see them but I can also tell you

that since I've been outside the space

station doing space walks and the space

station is mostly made of metal you see

a lot of little little pit marks little

little dents in the outside of space

station from where micro meteorites have

hit so we know that there's a lot of

things up there that come back and

actually hit the space station on the
outside there they're really tiny but they're going really fast so they make a little mark so yes I've been inside a meteor shower I guess by living in the space station for a few weeks good questions and I think that is all the time we have today we really said you guys were glad we're able to come join us you in the International Space Station flight control room again thank you Mike for coming you heard it here this the best job in the world and off the world so study hard thank your teachers and eat your veggies this is
Mission Control Houston Thank you kids

thank you James misses see you next year