



1
00:01:04,820 --> 00:00:59,190
in many ways living its face is just

2
00:01:13,170 --> 00:01:10,950
and in many other ways it's not one big

3
00:01:17,130 --> 00:01:13,180
difference is how gravity seems to act

4
00:01:19,620 --> 00:01:17,140
differently we all know that on earth if

5
00:01:23,400 --> 00:01:19,630
you drop a ball gravity causes it to

6
00:01:28,680 --> 00:01:23,410
fall to the ground and if you jump into

7
00:01:30,420 --> 00:01:28,690
the air gravity pulls you back down we

8
00:01:32,520 --> 00:01:30,430
feel the effects of Earth's gravity here

9
00:01:34,680 --> 00:01:32,530
in space too but because we're all

10
00:01:36,359 --> 00:01:34,690
falling around the earth it makes it

11
00:01:39,270 --> 00:01:36,369
seem like we and everything else around

12
00:01:40,830 --> 00:01:39,280
us are floating it's the same thing

13
00:01:45,270 --> 00:01:40,840

that's happening to my friend on this

14

00:01:49,469 --> 00:01:45,280

trampoline each time he goes up he falls

15

00:01:52,200 --> 00:01:49,479

back towards the ground now watch what

16

00:01:54,360 --> 00:01:52,210

happens when he lets go of the ball it

17

00:01:56,969 --> 00:01:54,370

falls - but because they're falling

18

00:02:01,200 --> 00:01:56,979

together the ball seems to him like it's

19

00:02:04,560 --> 00:02:01,210

floating on the shuttle we are found in

20

00:02:06,510 --> 00:02:04,570

an endless circle around the earth so if

21

00:02:08,669 --> 00:02:06,520

you let go of something in space it

22

00:02:12,600 --> 00:02:08,679

doesn't fall to the floor because the

23

00:02:14,490 --> 00:02:12,610

floor is falling - and if you jump you

24

00:02:17,729 --> 00:02:14,500

won't come back down the way you do on

25

00:02:19,470 --> 00:02:17,739

the ground can you think of some ways

26

00:02:23,680 --> 00:02:19,480

that this could make living in space

27

00:02:28,880 --> 00:02:26,000

while we're in space the Space Shuttle

28

00:02:31,460 --> 00:02:28,890

would be our home it doesn't look much

29

00:02:35,600 --> 00:02:31,470

like home but it has very much the same

30

00:02:38,150 --> 00:02:35,610

comforts come on I'll show you your

31

00:02:42,350 --> 00:02:38,160

house on earth has a kitchen and so does

32

00:02:44,630 --> 00:02:42,360

the shuttle our kitchen uses a

33

00:02:48,050 --> 00:02:44,640

convection oven and hot water to warm

34

00:02:49,699 --> 00:02:48,060

our food each day we're in space we'll

35

00:02:54,440 --> 00:02:49,709

use this kitchen to prepare our

36

00:02:56,180 --> 00:02:54,450

breakfast lunch and dinner how many of

37

00:02:57,590 --> 00:02:56,190

you have been told to pick up your toys

38

00:03:00,860 --> 00:02:57,600

when you're finished playing with them

39

00:03:04,880 --> 00:03:00,870

or they'll get lost this is true in

40

00:03:07,220 --> 00:03:04,890

space too at home you probably have a

41

00:03:10,490 --> 00:03:07,230

closet or a box to put your toys and

42

00:03:12,820 --> 00:03:10,500

belongings in here on the shuttle we use

43

00:03:15,559 --> 00:03:12,830

these drawers for our things and

44

00:03:17,479 --> 00:03:15,569

whenever we finish using something we

45

00:03:21,350 --> 00:03:17,489

put it away so that we'll always know

46

00:03:24,410 --> 00:03:21,360

where it is these boxes with the sliding

47

00:03:27,400 --> 00:03:24,420

doors are our beds they don't look very

48

00:03:30,440 --> 00:03:27,410

comfortable but at the end of a long day

49

00:03:34,280 --> 00:03:30,450

they feel just as good as the bed in

50

00:03:36,560 --> 00:03:34,290

your room at home I know that most do

51
00:03:40,430 --> 00:03:36,570
you really want to ask how do you go to

52
00:03:43,940 --> 00:03:40,440
the bathroom in space well we go to the

53
00:03:48,140 --> 00:03:43,950
bathroom right here in what we call the

54
00:03:49,670 --> 00:03:48,150
WCS or waste collection system our

55
00:03:51,890 --> 00:03:49,680
toilet looks a little different from the

56
00:03:54,050 --> 00:03:51,900
one you have at home that's because

57
00:03:55,490 --> 00:03:54,060
going to the bathroom in space is just a

58
00:03:57,970 --> 00:03:55,500
little bit different than what we're

59
00:04:00,680 --> 00:03:57,980
used to on earth

60
00:04:04,490 --> 00:04:00,690
this toilet even has places to put our

61
00:04:07,970 --> 00:04:04,500
feet so that we won't float away the big

62
00:04:09,880 --> 00:04:07,980
question is where does the waste go well

63
00:04:12,949 --> 00:04:09,890

I'll show you

64

00:04:14,930 --> 00:04:12,959

the shuttles toilet has an airflow that

65

00:04:17,210 --> 00:04:14,940

pulls the waste into the bottom of the

66

00:04:20,000 --> 00:04:17,220

toilet where it stays until it can be

67

00:04:22,129 --> 00:04:20,010

properly disposed of later the toilet

68

00:04:25,050 --> 00:04:22,139

also has a urine collection tube that we

69

00:04:27,840 --> 00:04:25,060

use when we have to urinate

70

00:04:31,890 --> 00:04:27,850

and that is how we use the bathroom in

71

00:04:34,860 --> 00:04:31,900

space a lot of people ask us why do you

72

00:04:37,140 --> 00:04:34,870

go to space well we go to space for the

73

00:04:41,520 --> 00:04:37,150

same reasons that you go to school to

74

00:04:43,680 --> 00:04:41,530

work and to learn now the best way for

75

00:04:46,620 --> 00:04:43,690

you to see that is to join us for a day

76

00:04:50,460 --> 00:04:46,630

in space I'm sure you'll have fun so

77

00:04:51,500 --> 00:04:50,470

come on a day in space begins just like

78

00:04:57,030 --> 00:04:51,510

a day on earth

79

00:04:58,620 --> 00:04:57,040

we first have to get out of bed and then

80

00:05:01,950 --> 00:04:58,630

we have to take care of our personal

81

00:05:03,920 --> 00:05:01,960

needs back home a lot of people start

82

00:05:07,129 --> 00:05:03,930

their day by taking a bath or a shower

83

00:05:12,170 --> 00:05:07,139

but that doesn't work so well in space

84

00:05:14,909 --> 00:05:12,180

remember up here things float even water

85

00:05:16,740 --> 00:05:14,919

but we still need to stay clean because

86

00:05:19,879 --> 00:05:16,750

no one wants to spend eight days cooped

87

00:05:22,260 --> 00:05:19,889

up with someone who hasn't taken a bath

88

00:05:24,510 --> 00:05:22,270

so we take our bath with a soapy

89

00:05:27,780 --> 00:05:24,520

washcloth the same way you would wash

90

00:05:29,760 --> 00:05:27,790

your face on earth we can even wash our

91

00:05:33,990 --> 00:05:29,770

hair with a special shampoo that doesn't

92

00:05:35,880 --> 00:05:34,000

eat water another part of almost

93

00:05:38,600 --> 00:05:35,890

everyone's morning routine is breakfast

94

00:05:41,880 --> 00:05:38,610

it's the most important meal of the day

95

00:05:43,529 --> 00:05:41,890

this is true in space too and just

96

00:05:46,580 --> 00:05:43,539

because we're in space doesn't mean that

97

00:05:48,930 --> 00:05:46,590

we have to eat some kind of weird food

98

00:05:51,240 --> 00:05:48,940

this morning we're having a balanced

99

00:05:54,680 --> 00:05:51,250

breakfast of oatmeal scrambled eggs and

100

00:06:00,990 --> 00:05:57,300

another thing we still must do even

101
00:06:03,510 --> 00:06:01,000
though we're in space is brush our teeth

102
00:06:07,530 --> 00:06:03,520
but you can see that up here it can be

103
00:06:11,670 --> 00:06:07,540
more fun no matter where you are almost

104
00:06:13,590 --> 00:06:11,680
everyone has a job to do each day at

105
00:06:17,760 --> 00:06:13,600
this point in your life going to school

106
00:06:20,970 --> 00:06:17,770
is your job you are learning the things

107
00:06:23,480 --> 00:06:20,980
you'll need to know as you grow up we

108
00:06:26,370 --> 00:06:23,490
have jobs to do on the shuttle too and

109
00:06:30,270 --> 00:06:26,380
just like you are doing in school we're

110
00:06:33,120 --> 00:06:30,280
learning - our main job on this trip is

111
00:06:34,740 --> 00:06:33,130
to study the Earth's atmosphere this

112
00:06:36,810 --> 00:06:34,750
will help us to better understand

113
00:06:40,130 --> 00:06:36,820

changes that are taking place in the

114

00:06:43,260 --> 00:06:40,140

blanket of air that surrounds the earth

115

00:06:46,350 --> 00:06:43,270

while we're up here we are also going to

116

00:06:48,330 --> 00:06:46,360

launch and retrieve a satellite this

117

00:06:50,310 --> 00:06:48,340

satellite will help scientists to learn

118

00:06:54,750 --> 00:06:50,320

about the Sun and how it affects our

119

00:06:57,000 --> 00:06:54,760

earth when we're working in space we

120

00:06:58,409 --> 00:06:57,010

don't have a lot of room that means that

121

00:07:03,540 --> 00:06:58,419

we have to watch out for each other and

122

00:07:04,830 --> 00:07:03,550

work together as a team it's the same

123

00:07:08,640 --> 00:07:04,840

way you work together with your

124

00:07:10,740 --> 00:07:08,650

classmates in school we all know that

125

00:07:14,040 --> 00:07:10,750

the best results happen when we work

126
00:07:17,010 --> 00:07:14,050
together but whether we're in space in

127
00:07:19,110 --> 00:07:17,020
school or anywhere else we have to

128
00:07:22,350 --> 00:07:19,120
remember that little things we do can

129
00:07:24,150 --> 00:07:22,360
affect others just think what it would

130
00:07:26,610 --> 00:07:24,160
be like if a crew member were careless

131
00:07:30,570 --> 00:07:26,620
and broke or lost a tool that someone

132
00:07:32,280 --> 00:07:30,580
needed for an important experiment can

133
00:07:35,640 --> 00:07:32,290
you think of some things like that that

134
00:07:38,219 --> 00:07:35,650
have happened in your classroom daily

135
00:07:40,350 --> 00:07:38,229
exercise is important and on earth most

136
00:07:43,560 --> 00:07:40,360
of us get all the exercise we need by

137
00:07:46,170 --> 00:07:43,570
doing things that are fun but it's not

138
00:07:48,000 --> 00:07:46,180

the same in space just think if you

139

00:07:49,950 --> 00:07:48,010

could float everywhere you want it to go

140

00:07:52,050 --> 00:07:49,960

your arms and legs wouldn't have to work

141

00:07:55,950 --> 00:07:52,060

very hard and soon they would become

142

00:07:58,260 --> 00:07:55,960

weak that's what it's like in space so

143

00:08:02,080 --> 00:07:58,270

we have to exercise each day to keep our

144

00:08:06,650 --> 00:08:04,460

eating dinner in space is something we

145

00:08:09,020 --> 00:08:06,660

look forward to not just because we're

146

00:08:10,700 --> 00:08:09,030

hungry but because it gives us a chance

147

00:08:14,809 --> 00:08:10,710

to spend time together when we're not

148

00:08:17,029 --> 00:08:14,819

working time for relaxation is important

149

00:08:19,999 --> 00:08:17,039

too so that we can get our minds off our

150

00:08:25,460 --> 00:08:20,009

work what kind of things do you like to

151

00:08:27,800 --> 00:08:25,470

do to relax well boys and girls it's

152

00:08:29,719 --> 00:08:27,810

been a long day in space and I need to

153

00:08:31,659 --> 00:08:29,729

get my rest to be ready for a big day

154

00:08:33,740 --> 00:08:31,669

tomorrow too

155

00:08:35,329 --> 00:08:33,750

we're glad that you could spend this

156

00:08:37,190 --> 00:08:35,339

time with us and we hope that you've

157

00:08:38,510 --> 00:08:37,200

learned that living in space is not so

158

00:08:41,120 --> 00:08:38,520

much different from the things you do

159

00:08:43,399 --> 00:08:41,130

everyday at home while we're sleeping

160

00:08:48,110 --> 00:08:43,409

why don't you and your classmates talk