



Spaceto**Ground**

1
00:00:06,550 --> 00:00:04,470
houston station on space to ground

2
00:00:09,110 --> 00:00:06,560
welcome to space to ground i'm kayla

3
00:00:11,430 --> 00:00:09,120
lafrance this week the crew is preparing

4
00:00:12,870 --> 00:00:11,440
for a holiday delivery and dreaming of

5
00:00:14,629 --> 00:00:12,880
sugar plums

6
00:00:17,269 --> 00:00:14,639
cargo dragon is in the final

7
00:00:21,590 --> 00:00:17,279
preparations for its targeted launch at

8
00:00:25,349 --> 00:00:21,600
506 a.m easter on december 21st this is

9
00:00:27,830 --> 00:00:25,359
spacex 24th cargo mission

10
00:00:31,189 --> 00:00:27,840
set to launch on a falcon 9 from launch

11
00:00:32,950 --> 00:00:31,199
complex 39a at nasa's kennedy space

12
00:00:35,510 --> 00:00:32,960
center in florida

13
00:00:37,590 --> 00:00:35,520

after reaching orbit the cargo dragon

14

00:00:41,350 --> 00:00:37,600

will then dock with the station the

15

00:00:43,910 --> 00:00:41,360

following day at 4 30 a.m eastern

16

00:00:46,470 --> 00:00:43,920

spacex 24 will deliver thousands of

17

00:00:48,790 --> 00:00:46,480

pounds of goods to the station including

18

00:00:52,150 --> 00:00:48,800

crew supplies and a variety of new

19

00:00:54,869 --> 00:00:52,160

scientific investigations such as four

20

00:00:56,790 --> 00:00:54,879

new cubesats a new protein crystal

21

00:00:59,270 --> 00:00:56,800

growth study aimed to improve the

22

00:01:01,430 --> 00:00:59,280

delivery of cancer treatment drugs a

23

00:01:04,310 --> 00:01:01,440

handheld bioprinter that will test

24

00:01:06,630 --> 00:01:04,320

technology that could one day be used to

25

00:01:08,870 --> 00:01:06,640

print tissue directly on wounds to

26

00:01:11,510 --> 00:01:08,880

accelerate healing and several

27

00:01:13,990 --> 00:01:11,520

experiments from university students as

28

00:01:17,510 --> 00:01:14,000

part of the student payload opportunity

29

00:01:20,950 --> 00:01:17,520

with citizen science or spocs program be

30

00:01:23,590 --> 00:01:20,960

sure to follow along on nasa tv nasa.gov

31

00:01:26,070 --> 00:01:23,600

or the nasa app as we continue to follow

32

00:01:28,550 --> 00:01:26,080

this mission leading up to our full live

33

00:01:30,230 --> 00:01:28,560

coverage of launch and subsequent

34

00:01:32,069 --> 00:01:30,240

docking

35

00:01:34,870 --> 00:01:32,079

many of us dream of what it would be

36

00:01:37,590 --> 00:01:34,880

like to live in space the very few of us

37

00:01:39,510 --> 00:01:37,600

get to actually dream in space

38

00:01:42,630 --> 00:01:39,520

while living on the space station the

39

00:01:45,429 --> 00:01:42,640

crew will experience sunrise and sunset

40

00:01:48,069 --> 00:01:45,439

16 times a day this can cause

41

00:01:49,990 --> 00:01:48,079

disruptions to their circadian rhythm

42

00:01:52,710 --> 00:01:50,000

and ability to sleep

43

00:01:55,590 --> 00:01:52,720

the dreams experiment aims to study this

44

00:01:57,990 --> 00:01:55,600

change in the astronaut sleep patterns

45

00:02:01,190 --> 00:01:58,000

and to examine how their minds and

46

00:02:04,230 --> 00:02:01,200

bodies adapt to sleeping in microgravity

47

00:02:06,469 --> 00:02:04,240

iss astronaut matthias mauer will be

48

00:02:08,949 --> 00:02:06,479

the next crew member to participate in

49

00:02:10,949 --> 00:02:08,959

the dream experiment malware will be

50

00:02:14,229 --> 00:02:10,959

wearing a sleep headband for several

51
00:02:15,670 --> 00:02:14,239
nights that's fitted with dry electrodes

52
00:02:18,309 --> 00:02:15,680
and sensors

53
00:02:20,790 --> 00:02:18,319
the headband will observe how he adapts

54
00:02:23,910 --> 00:02:20,800
and how his sleep patterns change while

55
00:02:26,869 --> 00:02:23,920
in space the impact of microgravity on

56
00:02:29,270 --> 00:02:26,879
sleep is a key challenge facing future

57
00:02:31,110 --> 00:02:29,280
long duration missions to the moon and

58
00:02:33,589 --> 00:02:31,120
mars

59
00:02:36,710 --> 00:02:33,599
today's ask nasa question comes from

60
00:02:40,229 --> 00:02:36,720
grace ritter on twitter who asked how do

61
00:02:42,470 --> 00:02:40,239
astronauts keep clean in space

62
00:02:45,110 --> 00:02:42,480
the crew keep clean in space the same

63
00:02:47,509 --> 00:02:45,120

way we do here on earth they have daily

64

00:02:49,830 --> 00:02:47,519

hygiene activities to brush their teeth

65

00:02:52,070 --> 00:02:49,840

comb their hair and wash their hands and

66

00:02:54,160 --> 00:02:52,080

face and they even give each other

67

00:02:57,350 --> 00:02:54,170

haircuts

68

00:02:59,910 --> 00:02:57,360

[Music]

69

00:03:02,790 --> 00:02:59,920

the astronauts wipe their bodies clean

70

00:03:05,270 --> 00:03:02,800

using a wet towel and wash their hair by

71

00:03:07,830 --> 00:03:05,280

using waterless shampoo

72

00:03:09,589 --> 00:03:07,840

after washing they will use dry towels

73

00:03:11,509 --> 00:03:09,599

to dry themselves off

74

00:03:14,309 --> 00:03:11,519

they also have to complete weekly

75

00:03:16,790 --> 00:03:14,319

housekeeping tasks on board the iss

76

00:03:19,670 --> 00:03:16,800

where they vacuum all air vents and

77

00:03:22,550 --> 00:03:19,680

filters and smoke detectors then they

78

00:03:24,229 --> 00:03:22,560

disinfect and wipe down surfaces that

79

00:03:25,750 --> 00:03:24,239

are frequently touched throughout the

80

00:03:28,470 --> 00:03:25,760

day by the crew

81

00:03:29,509 --> 00:03:28,480

areas like hand holds legality and its

82

00:03:31,830 --> 00:03:29,519

tables

83

00:03:34,470 --> 00:03:31,840

typically there are six hours a week

84

00:03:37,110 --> 00:03:34,480

spent on keeping their station home a

85

00:03:39,190 --> 00:03:37,120

clean and safe environment

86

00:03:40,949 --> 00:03:39,200

and that's face to ground for this week

87

00:03:47,700 --> 00:03:40,959

thanks for watching we'll see you next

88

00:03:47,710 --> 00:03:55,110

[Music]

89

00:04:03,910 --> 00:03:57,760

subscribe for more space