



SPACE TO GROUND

1
00:00:04,789 --> 00:00:03,030
houston station on space to ground

2
00:00:06,389 --> 00:00:04,799
welcome to space to ground your weekly

3
00:00:08,150 --> 00:00:06,399
look at what's happening on board the

4
00:00:10,150 --> 00:00:08,160
international space station i'm dan

5
00:00:11,910 --> 00:00:10,160
hewitt two space walks around the

6
00:00:14,390 --> 00:00:11,920
horizon and there's a lot of work to be

7
00:00:16,470 --> 00:00:14,400
done before anyone heads out the door

8
00:00:18,310 --> 00:00:16,480
nasa astronaut scott kelly and chell

9
00:00:21,189 --> 00:00:18,320
lindgren are gearing up for spacewalks

10
00:00:22,790 --> 00:00:21,199
on october 28th and november 6th and the

11
00:00:25,429 --> 00:00:22,800
onboard crew spent much of the week

12
00:00:27,670 --> 00:00:25,439
getting the duo suits and tools together

13
00:00:29,029 --> 00:00:27,680

the first time spacewalkers plan to use

14

00:00:30,870 --> 00:00:29,039

the time they've spent getting

15

00:00:32,150 --> 00:00:30,880

accustomed to life in microgravity to

16

00:00:35,270 --> 00:00:32,160

their advantage

17

00:00:36,389 --> 00:00:35,280

hopefully our familiarity with living

18

00:00:39,350 --> 00:00:36,399

and working

19

00:00:41,270 --> 00:00:39,360

on the space station will help us with

20

00:00:43,590 --> 00:00:41,280

working outside

21

00:00:45,830 --> 00:00:43,600

the space station being very familiar

22

00:00:47,350 --> 00:00:45,840

with how your body moves how to do work

23

00:00:48,950 --> 00:00:47,360

how to find good body positions all of

24

00:00:50,470 --> 00:00:48,960

those things i think translate very

25

00:00:51,830 --> 00:00:50,480

nicely to the kind of work that we're

26

00:00:52,790 --> 00:00:51,840

going to be doing outside the space

27

00:00:55,110 --> 00:00:52,800

station

28

00:00:57,990 --> 00:00:55,120

this week chell lingvron worked in space

29

00:01:00,150 --> 00:00:58,000

on in space well it's called the inspace

30

00:01:02,069 --> 00:01:00,160

3 experiment and it's studying how

31

00:01:04,869 --> 00:01:02,079

magnetic colloidal fluids arrange

32

00:01:07,190 --> 00:01:04,879

themselves in microgravity these smart

33

00:01:09,270 --> 00:01:07,200

liquids quickly solidify when exposed to

34

00:01:11,670 --> 00:01:09,280

magnets and are great at absorbing

35

00:01:13,750 --> 00:01:11,680

impacts they're already found in shock

36

00:01:15,749 --> 00:01:13,760

absorbers and race cars and they're now

37

00:01:18,630 --> 00:01:15,759

being tested to help stabilize buildings

38

00:01:20,390 --> 00:01:18,640

in areas that get a lot of earthquakes

39

00:01:22,070 --> 00:01:20,400

this week's question is from ben who

40

00:01:25,109 --> 00:01:22,080

wants to know what the temperature is

41

00:01:26,950 --> 00:01:25,119

outside the iss well first remember that

42

00:01:29,270 --> 00:01:26,960

is a vacuum so your thermometer won't

43

00:01:31,670 --> 00:01:29,280

work the same way it does here on earth

44

00:01:34,069 --> 00:01:31,680

the main way to heat or cool things in a

45

00:01:36,550 --> 00:01:34,079

vacuum is through radiation which we get

46

00:01:38,630 --> 00:01:36,560

from sources like the sun the station

47

00:01:40,310 --> 00:01:38,640

has special paints and blankets which

48

00:01:43,670 --> 00:01:40,320

keep the outside surface between

49

00:01:45,830 --> 00:01:43,680

negative 58 and 122 degrees fahrenheit

50

00:01:48,069 --> 00:01:45,840

quite a range but without special

51

00:01:50,469 --> 00:01:48,079

protection materials like metal orbiting

52

00:01:51,990 --> 00:01:50,479

earth can get as hot as 500 degrees

53

00:01:53,429 --> 00:01:52,000

fahrenheit

54

00:01:55,749 --> 00:01:53,439

keep sending us your questions and