SPACE TO GROUND

1
00:00:04,870 --> 00:00:03,030
houston station on space to ground

2
00:00:06,550 --> 00:00:04,880
welcome to space to ground your weekly

3
00:00:08,390 --> 00:00:06,560
look at what's happening on board the

4
00:00:10,790 --> 00:00:08,400
international space station i'm dan

5
00:00:12,629 --> 00:00:10,800
hewitt spring has sprung and flowers are

6
00:00:14,870 --> 00:00:12,639
blooming in space

7
00:00:17,349 --> 00:00:14,880
zinnia flowers burst forth this week

8
00:00:19,189 --> 00:00:17,359
inside the veggie plant growth facility

9
00:00:21,510 --> 00:00:19,199
used by astronauts to hone their

10
00:00:23,590 --> 00:00:21,520
microgravity gardening skills

11
00:00:26,070 --> 00:00:23,600
flowers have appeared in space before

12
00:00:28,470 --> 00:00:26,080
with nasa astronaut don pettit growing a

13
00:00:30,230 --> 00:00:28,480

sunflower and even writing a blog from

14
00:00:31,750 --> 00:00:30,240
the point of view of his space grown

15
00:00:33,750 --> 00:00:31,760
zucchini flower

16
00:00:35,910 --> 00:00:33,760
this current study will be used to help

17
00:00:38,709 --> 00:00:35,920
with the next flowering plant experiment

18
00:00:40,549 --> 00:00:38,719
in 2017 when astronauts will try out

19
00:00:43,030 --> 00:00:40,559
their green thumbs attempting to grow

20
00:00:45,110 --> 00:00:43,040
tomatoes and even though the holidays

21
00:00:47,590 --> 00:00:45,120
are well passed an elf showed up on

22
00:00:50,709 --> 00:00:47,600
station this week the crew set up the

23
00:00:53,270 --> 00:00:50,719
electrostatic levitation furnace or elf

24
00:00:55,990 --> 00:00:53,280
for short which is a japanese payload

25
00:00:58,470 --> 00:00:56,000
used for material science it uses an

26
00:01:00,470 --> 00:00:58,480
electric field to keep samples in place

27
00:01:02,470 --> 00:01:00,480
which frees them from the impurities

28
00:01:04,789 --> 00:01:02,480
that can come from the containers used

29
00:01:07,950 --> 00:01:04,799
in the melting process on earth then a

30
00:01:11,109 --> 00:01:07,960
laser heat samples to between 570 and

31
00:01:12,950 --> 00:01:11,119
5400 degrees fahrenheit measurements

32
00:01:14,789 --> 00:01:12,960
from this process could provide new

33
00:01:16,710 --> 00:01:14,799
insights for the procedures used in the

34
00:01:18,230 --> 00:01:16,720
production of high-performance steel

35
00:01:20,070 --> 00:01:18,240
here on earth

36
00:01:22,149 --> 00:01:20,080
this week's twitter question comes from

37
00:01:24,469 --> 00:01:22,159
nabeel who wants to know what keeps the

38
00:01:26,630 --> 00:01:24,479

station stable when astronauts do things

39
00:01:28,550 --> 00:01:26,640
like run on the treadmill that's a smart

40
00:01:30,230 --> 00:01:28,560
question and something our engineers had

41
00:01:32,550 --> 00:01:30,240
to think a lot about

42
00:01:35,109 --> 00:01:32,560
devices like the treadmill stationary

43
00:01:37,910 --> 00:01:35,119
bike and weight lifting machine actually

44
00:01:39,990 --> 00:01:37,920
have vibration stabilizers built in to

45
00:01:41,109 --> 00:01:40,000
separate them from the station structure

46
00:01:43,030 --> 00:01:41,119
itself

47
00:01:44,630 --> 00:01:43,040
otherwise the motion from the astronauts

48
00:01:47,030 --> 00:01:44,640
could have negative effects on the

49
00:01:49,590 --> 00:01:47,040
delicate science taking place all across

50
00:01:51,670 --> 00:01:49,600
the station or even alter the motion of

51
00:01:53,590 --> 00:01:51,680
the station itself

52
00:01:56,149 --> 00:01:53,600
keep sending us your questions using the