



# Space**to**Ground

1  
00:00:02,536 --> 00:00:04,656  
"HOUSTON, STATION  
ON SPACE TO GROUND."

2  
00:00:05,176 --> 00:00:07,446  
WELCOME TO SPACE TO  
GROUND, I'M KAYLA LAFRANCE.

3  
00:00:07,766 --> 00:00:10,926  
A TOOL THAT HELPED GUIDE  
SAILORS ACROSS VAST OCEANS

4  
00:00:10,926 --> 00:00:14,216  
FOR CENTURIES IS NOW BEING  
PUT TO THE TEST IN SPACE.

5  
00:00:15,386 --> 00:00:17,406  
THE CREW HAS BEEN  
TESTING OUT A SEXTANT,

6  
00:00:17,666 --> 00:00:20,046  
A DEVICE WITH A SMALL  
TELESCOPE-LIKE SIGHT

7  
00:00:20,196 --> 00:00:21,836  
THAT CAN TAKE PRECISE  
MEASUREMENTS

8  
00:00:21,946 --> 00:00:23,056  
BETWEEN PAIRS OF STARS.

9  
00:00:23,656 --> 00:00:26,936  
THESE WERE ACTUALLY USED IN THE  
EARLY DAYS OF HUMAN SPACEFLIGHT

10  
00:00:27,046 --> 00:00:29,276  
ON PROGRAMS LIKE  
GEMINI AND APOLLO,

11

00:00:29,666 --> 00:00:31,696  
AND MISSION PLANNERS  
ARE ONCE AGAIN LOOKING

12  
00:00:31,696 --> 00:00:34,946  
AT HOW THEY COULD BE USED FOR  
EMERGENCY NAVIGATION NEEDS

13  
00:00:35,046 --> 00:00:38,116  
ON DEEP-SPACE EXPLORATION  
VEHICLES LIKE ORION.

14  
00:00:38,946 --> 00:00:42,336  
AND AS PART OF THE ONGOING  
YEAR OF EDUCATION ON STATION,

15  
00:00:42,656 --> 00:00:45,286  
ASTRONAUT RICKY ARNOLD  
CAUGHT UP WITH EDUCATORS

16  
00:00:45,396 --> 00:00:46,926  
IN A VERY SPECIAL LOCATION.

17  
00:00:47,676 --> 00:00:50,506  
THE CHALLENGER CENTER IN  
WASHINGTON D.C. WAS CREATED

18  
00:00:50,506 --> 00:00:54,226  
BY THE FAMILIES OF THE  
CHALLENGER STS-51L SHUTTLE CREW.

19  
00:00:54,716 --> 00:00:57,336  
ASTRONAUT RICKY ARNOLD JOINED  
TEACHERS GATHERED THERE

20  
00:00:57,526 --> 00:00:58,426  
FOR A SPECIAL UPDATE.

21  
00:00:59,226 --> 00:01:03,226  
"As a science teacher, I am here

wrapping up a year of Education

22

00:01:03,226 --> 00:01:07,126  
on Station because of that  
Challenger mission and because

23

00:01:07,126 --> 00:01:09,706  
of all the folks involved in  
the Teacher in Space program

24

00:01:09,706 --> 00:01:11,566  
and the people that  
kept that dream alive.

25

00:01:11,566 --> 00:01:14,786  
It's an incredible honor for  
me to play a really small part

26

00:01:14,856 --> 00:01:18,056  
in bringing this part of  
the mission to completion".

27

00:01:18,736 --> 00:01:20,376  
WITH THESE LESSONS  
NOW AVAILABLE,

28

00:01:20,606 --> 00:01:22,076  
BE SURE TO GO AND  
CHECK THEM OUT!

29

00:01:22,266 --> 00:01:25,846  
CHRISTA MCAULIFFE WAS SET TO  
BE THE FIRST TEACHER IN SPACE,

30

00:01:26,146 --> 00:01:29,286  
AND PLANNED A SERIES OF SCIENCE  
DEMONSTRATIONS TO BE SHARED

31

00:01:29,286 --> 00:01:30,996  
WITH CLASSROOMS AROUND

THE WORLD.

32  
00:01:31,706 --> 00:01:35,316  
BY USING THE UNIQUE MICROGRAVITY  
ASTRONAUTS EXPERIENCE IN SPACE,

33  
00:01:35,806 --> 00:01:37,906  
STUDENTS CAN EXPERIENCE  
A WHOLE NEW WAY

34  
00:01:37,906 --> 00:01:41,646  
TO SEE BASIC SCIENCE CONCEPTS  
LIKE NEWTON'S LAWS COME TO LIFE.

35  
00:01:41,836 --> 00:01:45,426  
YOU CAN WATCH THE LOST LESSONS  
OR EVEN DOWNLOAD INSTRUCTIONS

36  
00:01:45,426 --> 00:01:47,516  
ON HOW TO DO THEM IN  
YOUR OWN CLASSROOM

37  
00:01:47,776 --> 00:01:50,086  
AT [CHALLENGER.ORG/CHRISTA](https://challenger.org/chrستا).

38  
00:01:51,426 --> 00:01:53,246  
"IT'S TRULY HEARTRENDING  
TO WITNESS..."

39  
00:01:53,716 --> 00:01:57,816  
THAT'S WHAT EXPEDITION 56 FLIGHT  
ENGINEER OLEG ARTEMYEV TWEETED

40  
00:01:57,816 --> 00:02:00,166  
THIS WEEK AS HE AND  
OTHER CREWMEMBERS FLEW

41  
00:02:00,166 --> 00:02:01,936  
OVER THE WILDFIRES  
IN CALIFORNIA.

42

00:02:02,536 --> 00:02:05,116

THESE ARE SOME OF THE  
IMAGES TAKEN FROM STATION

43

00:02:05,116 --> 00:02:08,436

OF THE LARGEST WILDFIRES IN  
CALIFORNIA'S RECORDED HISTORY.

44

00:02:09,276 --> 00:02:11,766

YOU CAN SEE THESE PHOTOS  
AND OTHERS OF OUR PLANET

45

00:02:11,916 --> 00:02:14,176

BY FOLLOWING THE CREW  
RIGHT NOW ON TWITTER.