1
00:00:07,160 --> 00:00:04,220
there can be no doubt that education is

2
00:00:09,080 --> 00:00:07,170
the keystone to our future around the

3
00:00:10,549 --> 00:00:09,090
nation educational partnerships are

4
00:00:13,129 --> 00:00:10,559
being established with the private

5
00:00:15,950 --> 00:00:13,139
sector to more fully impact the

6
00:00:18,890 --> 00:00:15,960
educational community at the same time

7
00:00:21,260 --> 00:00:18,900
educators have come to realize that the

8
00:00:23,120 --> 00:00:21,270
topic of space serves as a catalyst to

9
00:00:25,370 --> 00:00:23,130
inspire young people to take many

10
00:00:28,130 --> 00:00:25,380
different subjects they are most often

11
00:00:30,710 --> 00:00:28,140
science and mathematics several

12
00:00:33,350 --> 00:00:30,720
organizations use the topic of space as

13
00:00:34,850 --> 00:00:33,360

their central theme for example there's

14
00:00:37,580 --> 00:00:34,860
the young astronaut foundation in

15
00:00:40,340 --> 00:00:37,590
Washington DC the United States Space

16
00:00:42,440 --> 00:00:40,350
Camp in Huntsville Alabama and even the

17
00:00:44,440 --> 00:00:42,450
4-h is incorporating the space theme

18
00:00:47,630 --> 00:00:44,450
into some of their educational programs

19
00:00:50,119 --> 00:00:47,640
the most recent student educator

20
00:00:52,549 --> 00:00:50,129
space-related organization to come into

21
00:00:55,279 --> 00:00:52,559
being is the Challenger Center for space

22
00:00:57,500 --> 00:00:55,289
science education through Challenger

23
00:01:00,130 --> 00:00:57,510
centers endeavors the aims and

24
00:01:02,360 --> 00:01:00,140
intentions of the Challenger 51 l crew

25
00:01:04,880 --> 00:01:02,370
continues thanks to the efforts of the

26
00:01:06,920 --> 00:01:04,890
family members challenger Center is

27
00:01:08,570 --> 00:01:06,930
establishing a network of challenger

28
00:01:12,140 --> 00:01:08,580
learning centers throughout the United

29
00:01:14,690 --> 00:01:12,150
States Chuck Resnick one of the founding

30
00:01:17,060 --> 00:01:14,700
family members tells us about the origin

31
00:01:19,789 --> 00:01:17,070
of the Challenger Center the Challenger

32
00:01:22,539 --> 00:01:19,799
Center was an idea that came about from

33
00:01:25,670 --> 00:01:22,549
the families of the Challenger crew

34
00:01:29,120 --> 00:01:25,680
after the Challenger accident there were

35
00:01:31,130 --> 00:01:29,130
a number of people who were interested

36
00:01:32,990 --> 00:01:31,140
in helping us in any way they could

37
00:01:35,390 --> 00:01:33,000
there was a tremendous outpouring of

38
00:01:38,630 --> 00:01:35,400

emotion and support from all over the

39
00:01:42,170 --> 00:01:38,640
country and a lot of people wanted to

40
00:01:44,420 --> 00:01:42,180
continue the mission in some way they

41
00:01:47,300 --> 00:01:44,430
wanted to show their support for the

42
00:01:50,179 --> 00:01:47,310
Challenger crew and the families decided

43
00:01:52,310 --> 00:01:50,189
that the most appropriate way was to try

44
00:01:53,690 --> 00:01:52,320
to continue the educational portion of

45
00:01:55,700 --> 00:01:53,700
the mission because all of the

46
00:01:57,819 --> 00:01:55,710
astronauts were educators and teachers

47
00:02:01,550 --> 00:01:57,829
in their own way including Christa and

48
00:02:03,709 --> 00:02:01,560
so we came up with an idea of trying to

49
00:02:05,569 --> 00:02:03,719
give back to the country some of the

50
00:02:09,190 --> 00:02:05,579
support that they had shown us by

51
00:02:11,479 --> 00:02:09,200
creating an educational process that

52
00:02:12,230 --> 00:02:11,489
children all over the country could use

53
00:02:14,300 --> 00:02:12,240
and that's

54
00:02:16,070 --> 00:02:14,310
the idea of the Challenger Center was

55
00:02:17,960 --> 00:02:16,080
developed the Challenger Center

56
00:02:20,960 --> 00:02:17,970
educational programs are built around

57
00:02:24,190 --> 00:02:20,970
simulations to generate excitement in

58
00:02:26,900 --> 00:02:24,200
the hard sciences as well as mathematics

59
00:02:29,420 --> 00:02:26,910
the need for interest in these fields is

60
00:02:31,640 --> 00:02:29,430
very clear there has been a steady

61
00:02:34,790 --> 00:02:31,650
decline in science and math learning

62
00:02:37,220 --> 00:02:34,800
while at the same time technological

63
00:02:39,650 --> 00:02:37,230

advances are creating numerous jobs in

64
00:02:41,930 --> 00:02:39,660
related fields for which there is the

65
00:02:44,420 --> 00:02:41,940
potential that someday there will not be

66
00:02:47,270 --> 00:02:44,430
enough qualified individuals to fill all

67
00:02:49,370 --> 00:02:47,280
of the vacancies the Challenger Learning

68
00:02:51,860 --> 00:02:49,380
Center's attempt to create an atmosphere

69
00:02:54,530 --> 00:02:51,870
that will inspire young people to want

70
00:02:55,700 --> 00:02:54,540
to learn to tell us about some of the

71
00:02:58,610 --> 00:02:55,710
Challenger Learning Center

72
00:03:00,080 --> 00:02:58,620
accomplishments is Doug king president

73
00:03:02,570 --> 00:03:00,090
of the Challenger Center for space

74
00:03:04,220 --> 00:03:02,580
science education I think the

75
00:03:06,050 --> 00:03:04,230
accomplishments already are an

76
00:03:08,090 --> 00:03:06,060
incredible tribute to the family members

77
00:03:10,370 --> 00:03:08,100
that founded this and the educators and

78
00:03:12,710 --> 00:03:10,380
board members that they have gathered

79
00:03:13,970 --> 00:03:12,720
together as a team we've had over 6,000

80
00:03:16,010 --> 00:03:13,980
students go through the prototype

81
00:03:18,800 --> 00:03:16,020
facility down in Houston we've had just

82
00:03:20,300 --> 00:03:18,810
the beginnings of student population

83
00:03:22,610 --> 00:03:20,310
coming through this facility here in

84
00:03:23,840 --> 00:03:22,620
Prince George's County but more

85
00:03:25,490 --> 00:03:23,850
importantly they've laid the groundwork

86
00:03:27,530 --> 00:03:25,500
for a national network of learning

87
00:03:29,240 --> 00:03:27,540
facilities that will reach 50,000

88
00:03:32,060 --> 00:03:29,250

teachers and half a million students a

89
00:03:34,970 --> 00:03:32,070
year by 1992 the Challenger Learning

90
00:03:36,890 --> 00:03:34,980
Centres form a network these centers

91
00:03:39,140 --> 00:03:36,900
simulate future space flights with a

92
00:03:41,710 --> 00:03:39,150
space station simulator in one room and

93
00:03:44,540 --> 00:03:41,720
Mission Control on earth and another

94
00:03:47,150 --> 00:03:44,550
these simulated space flights provide

95
00:03:49,640 --> 00:03:47,160
students and educators with hands-on

96
00:03:52,550 --> 00:03:49,650
experience with a variety of science

97
00:03:54,440 --> 00:03:52,560
math and problem-solving task which will

98
00:03:57,490 --> 00:03:54,450
vary depending on the mission the crew

99
00:04:00,800 --> 00:03:57,500
is on currently there are two missions

100
00:04:04,790 --> 00:04:00,810
return to the moon and rendezvous with

101
00:04:06,710 --> 00:04:04,800
comet Halley in 2060 one additional

102
00:04:09,830 --> 00:04:06,720
future mission scenarios are being

103
00:04:12,260 --> 00:04:09,840
planned during their flight the students

104
00:04:14,630 --> 00:04:12,270
must solve problems their solution

105
00:04:18,070 --> 00:04:14,640
depends upon cooperation and teamwork

106
00:04:20,300 --> 00:04:18,080
and the use of critical thinking skills

107
00:04:22,340 --> 00:04:20,310
once back at school

108
00:04:24,530 --> 00:04:22,350
the students use the data that they

109
00:04:27,860 --> 00:04:24,540
collected during their flight to tie the

110
00:04:29,720 --> 00:04:27,870
mission together the Challenger centers

111
00:04:31,700 --> 00:04:29,730
first learning center was opened at the

112
00:04:35,840 --> 00:04:31,710
Houston Museum of Natural Science in

113
00:04:37,610 --> 00:04:35,850

August of 1988 throughout the country a

114
00:04:40,970 --> 00:04:37,620
number of challenger learning centers

115
00:04:42,800 --> 00:04:40,980
are in the process of opening this

116
00:04:45,230 --> 00:04:42,810
national network of learning facilities

117
00:04:47,900 --> 00:04:45,240
will be linked together by a flagship

118
00:04:49,490 --> 00:04:47,910
facility in Washington DC that facility

119
00:04:51,350 --> 00:04:49,500
will provide teacher training and

120
00:04:53,090 --> 00:04:51,360
research and development and an

121
00:04:54,700 --> 00:04:53,100
opportunity to link the mission sites

122
00:04:57,560 --> 00:04:54,710
into national and even international

123
00:04:59,780 --> 00:04:57,570
simulations the ultimate goal of the

124
00:05:02,330 --> 00:04:59,790
Challenger Center is to be a network

125
00:05:05,540 --> 00:05:02,340
that is certainly nationwide and perhaps

126
00:05:08,629 --> 00:05:05,550
worldwide as far as facilities for

127
00:05:10,790 --> 00:05:08,639
children and teachers to utilize not

128
00:05:12,530 --> 00:05:10,800
only that there will be curriculum that

129
00:05:15,409 --> 00:05:12,540
can be disseminated throughout all of

130
00:05:17,390 --> 00:05:15,419
the schools again in the United States

131
00:05:20,240 --> 00:05:17,400
and perhaps in other countries as well

132
00:05:22,250 --> 00:05:20,250
so that even those children and teachers

133
00:05:23,960 --> 00:05:22,260
who cannot visit our facilities will

134
00:05:25,490 --> 00:05:23,970
still have some of the educational

135
00:05:27,469 --> 00:05:25,500
materials that have been developed

136
00:05:30,290 --> 00:05:27,479
through the Challenger Center in order

137
00:05:34,250 --> 00:05:30,300
to continue the interest that children

138
00:05:36,650 --> 00:05:34,260

have in areas of space science and other

139
00:05:38,450 --> 00:05:36,660
types of technology a challenge a

140
00:05:41,779 --> 00:05:38,460
learning center is made up of a space

141
00:05:43,040 --> 00:05:41,789
station and Mission Control in the space

142
00:05:45,490 --> 00:05:43,050
station there are eight different

143
00:05:48,129 --> 00:05:45,500
modules to carry out the various tasks

144
00:05:50,270 --> 00:05:48,139
required to complete the mission

145
00:05:53,690 --> 00:05:50,280
students work in teams during the

146
00:05:55,790 --> 00:05:53,700
mission everyone's and participates in

147
00:05:58,340 --> 00:05:55,800
the simulation is very important to the

148
00:06:00,260 --> 00:05:58,350
success of the mission during each

149
00:06:02,590 --> 00:06:00,270
mission the students will work in both

150
00:06:06,350 --> 00:06:02,600
Mission Control and the space station

151
00:06:08,120 --> 00:06:06,360
there is the medical station here tasks

152
00:06:10,909 --> 00:06:08,130
are completed to determine the health of

153
00:06:13,580 --> 00:06:10,919
the crew in the life-support station the

154
00:06:15,440 --> 00:06:13,590
space stations environment is monitored

155
00:06:18,590 --> 00:06:15,450
to ensure good air and water quality

156
00:06:21,170 --> 00:06:18,600
during the mission in the isolation

157
00:06:22,420 --> 00:06:21,180
chamber materials are handled outside of

158
00:06:25,930 --> 00:06:22,430
the space station

159
00:06:28,360 --> 00:06:25,940
use of robotics at the biosphere station

160
00:06:31,600 --> 00:06:28,370
tella operations are used to operate

161
00:06:34,630 --> 00:06:31,610
robots in a greenhouse these plants can

162
00:06:37,090 --> 00:06:34,640
be used as a source of food some tasks

163
00:06:39,010 --> 00:06:37,100

are completed in the glove box here

164
00:06:40,690 --> 00:06:39,020
students might study moon rocks are

165
00:06:43,330 --> 00:06:40,700
determine the amount of chlorophyll in

166
00:06:45,400 --> 00:06:43,340
the leaf of a plant in the probe room

167
00:06:47,530 --> 00:06:45,410
the space travelers assemble a probe

168
00:06:51,340 --> 00:06:47,540
that will be used to gather data about

169
00:06:54,130 --> 00:06:51,350
comet halley or the moon the navigation

170
00:06:57,780 --> 00:06:54,140
team works to locate comet halle or to

171
00:07:00,760 --> 00:06:57,790
select the best landing site on the moon

172
00:07:03,160 --> 00:07:00,770
simcom and the space station and capcom

173
00:07:05,140 --> 00:07:03,170
and Mission Control work together to

174
00:07:08,560 --> 00:07:05,150
ensure all messages are delivered and

175
00:07:10,720 --> 00:07:08,570
questions are answered Mission Control

176
00:07:12,940 --> 00:07:10,730
guides the space station through its

177
00:07:15,160 --> 00:07:12,950
flight by providing needed information

178
00:07:18,640 --> 00:07:15,170
to answer the cruise questions or

179
00:07:20,800 --> 00:07:18,650
concerns during the mission in addition

180
00:07:23,080 --> 00:07:20,810
to Challenger Learning Center's the

181
00:07:25,650 --> 00:07:23,090
Challenger educational programs includes

182
00:07:28,450 --> 00:07:25,660
video conferences teacher workshops

183
00:07:32,500 --> 00:07:28,460
curriculum materials and someday a

184
00:07:36,460 --> 00:07:32,510
flagship facility in Washington DC the

185
00:07:38,320 --> 00:07:36,470
Challenger Center is a continuation of

186
00:07:44,230 --> 00:07:38,330
the mission of the Challenger crew and

187
00:07:46,270 --> 00:07:44,240
it's a way of acknowledging the the fact

188
00:07:48,670 --> 00:07:46,280

that they gave their lives for a worthy

189
00:07:51,330 --> 00:07:48,680
cause that they were explorers that they

190
00:07:55,000 --> 00:07:51,340
were educators that they were all

191
00:07:57,220 --> 00:07:55,010
seeking to learn in their own way and if

192
00:07:59,580 --> 00:07:57,230
through the facilities of the Challenger

193
00:08:02,020 --> 00:07:59,590
Center we can instill some of those same

194
00:08:04,930 --> 00:08:02,030
characteristics in children around the