



1
00:00:12,730 --> 00:00:09,400
for curiosity can explore Mars it's got

2
00:00:14,169 --> 00:00:12,740
to get there first the last stage of the

3
00:00:16,119 --> 00:00:14,179
launch vehicle gives the spacecraft a

4
00:00:17,320 --> 00:00:16,129
final push and spins it up for our eight

5
00:00:28,900 --> 00:00:17,330
and a half month cruise to the Red

6
00:00:30,909 --> 00:00:28,910
Planet ten minutes before hitting the

7
00:00:39,240 --> 00:00:30,919
atmosphere the crew stage separates and

8
00:00:44,049 --> 00:00:42,069
hitting the atmosphere at about 13,000

9
00:00:50,210 --> 00:00:44,059
miles per hour spacecraft begins to slow

10
00:00:54,080 --> 00:00:52,550
while slowing down the spacecraft uses

11
00:00:57,380 --> 00:00:54,090
thrusters to help steer toward the

12
00:00:58,970 --> 00:00:57,390
landing target we throw off weights to

13
00:01:01,880 --> 00:00:58,980

rebalance the spacecraft so it's lined

14

00:01:03,650 --> 00:01:01,890

up for parachute deploy after slowing to

15

00:01:05,660 --> 00:01:03,660

about Mach 2 or about a thousand miles

16

00:01:08,350 --> 00:01:05,670

per hour we deploy the parachute to slow

17

00:01:12,290 --> 00:01:10,670

once we're below the speed of sound the

18

00:01:13,580 --> 00:01:12,300

heat shield separates and the spacecraft

19

00:01:21,050 --> 00:01:13,590

looks for the ground with the landing

20

00:01:22,790 --> 00:01:21,060

radar once we've reached an altitude of

21

00:01:24,410 --> 00:01:22,800

about one mile spacecraft drops out of

22

00:01:26,270 --> 00:01:24,420

the backshell at about 200 miles an hour

23

00:01:27,320 --> 00:01:26,280

it then fires up the landing engines to

24

00:01:29,450 --> 00:01:27,330

slow it down even further

25

00:01:30,920 --> 00:01:29,460

once we've descended to about 60 feet

26
00:01:31,910 --> 00:01:30,930
above the ground and are going only

27
00:01:35,980 --> 00:01:31,920
about two miles per hour

28
00:01:58,980 --> 00:01:38,270
as the rover is lowered the wheels

29
00:02:02,530 --> 00:02:01,060
what's the rubbers on the ground and

30
00:02:04,600 --> 00:02:02,540
touchdown it's been detected there's

31
00:02:06,640 --> 00:02:04,610
sense age cuts the rover loose it flies

32
00:02:21,860 --> 00:02:06,650
away even curiosity's safe on the

33
00:02:25,320 --> 00:02:24,030
one of the first things curiosity does

34
00:02:27,180 --> 00:02:25,330
after landing is to deploy the mast

35
00:02:46,130 --> 00:02:27,190
which supports many cameras and

36
00:02:48,809 --> 00:02:48,030
curiosity shoots a laser at an

37
00:02:50,819 --> 00:02:48,819
interesting target

38
00:02:52,349 --> 00:02:50,829

this helps us quickly understand the

39

00:03:01,610 --> 00:02:52,359

kind and composition of that target from

40

00:03:05,390 --> 00:03:03,530

you're the targets worth a closer look

41

00:03:06,860 --> 00:03:05,400

curiosity can drive up and inspect it

42

00:03:31,090 --> 00:03:06,870

with the instruments and tools at the

43

00:03:34,880 --> 00:03:33,410

the drill on the arm allows us to grab

44

00:03:36,470 --> 00:03:34,890

some that rock and deliver it to the

45

00:03:54,780 --> 00:03:36,480

laboratory instruments inside the body

46

00:03:58,800 --> 00:03:56,970

those instruments can tell us even more

47

00:04:00,300 --> 00:03:58,810

about the mineral composition getting us

48

00:04:05,510 --> 00:04:00,310

closer to understanding whether life

49

00:04:09,330 --> 00:04:07,470

curiosity will be exploring the red