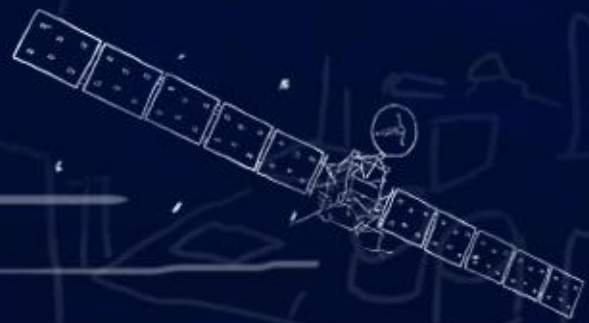


THE ROSETTA MISSION ASKS ...

WHAT IS A COMET?



1
00:00:14,760 --> 00:00:11,690

[Music]

2
00:00:16,830 --> 00:00:14,770
comments are very noticeable in evening

3
00:00:20,900 --> 00:00:16,840
scars that made him very special to

4
00:00:24,210 --> 00:00:20,910
humanity for thousands of years people

5
00:00:27,000 --> 00:00:24,220
been fascinated with comets sometimes

6
00:00:29,040 --> 00:00:27,010
they scared people and it's just amazing

7
00:00:30,870 --> 00:00:29,050
we know so little about them

8
00:00:33,240 --> 00:00:30,880
the reason it's very exciting right now

9
00:00:36,080 --> 00:00:33,250
to be talking about comets there is a

10
00:00:38,890 --> 00:00:36,090
mission called Rosetta

11
00:00:41,390 --> 00:00:38,900
the Rosetta mission is unique it's gonna

12
00:00:43,640 --> 00:00:41,400
rendezvous with a comet for the first

13
00:00:46,280 --> 00:00:43,650

time it's going to be the first time we

14

00:00:48,110 --> 00:00:46,290

escort or ride alongside the comet the

15

00:00:50,780 --> 00:00:48,120

cherry on the top of the Rosetta cake is

16

00:00:53,510 --> 00:00:50,790

that we deploy lander onto the surface

17

00:00:56,300 --> 00:00:53,520

of the comet itself that's what makes

18

00:00:58,250 --> 00:00:56,310

one Zetas sexy it's to me the the most

19

00:01:01,010 --> 00:00:58,260

exciting the sexiest mission that's out

20

00:01:03,410 --> 00:01:01,020

in the solar system today people ask why

21

00:01:05,930 --> 00:01:03,420

do you care about Collins there are

22

00:01:08,540 --> 00:01:05,940

uncountable numbers of them in our solar

23

00:01:11,060 --> 00:01:08,550

system most of them have been kept in

24

00:01:11,810 --> 00:01:11,070

cold storage very far from the Sun since

25

00:01:15,680 --> 00:01:11,820

the beginning

26

00:01:17,780 --> 00:01:15,690

comets are like a time capsule to the

27

00:01:20,630 --> 00:01:17,790

early phases of the solar system there's

28

00:01:22,210 --> 00:01:20,640

information that was trapped from 4.6

29

00:01:32,460 --> 00:01:22,220

billion years ago

30

00:01:37,660 --> 00:01:35,710

Komets jet in from the outer reaches of

31

00:01:40,810 --> 00:01:37,670

the solar system when the comet comes

32

00:01:43,330 --> 00:01:40,820

close to the Sun it heats up it's

33

00:01:45,460 --> 00:01:43,340

subjected to the solar wind they have

34

00:01:49,600 --> 00:01:45,470

these enormous what we call tails

35

00:01:52,480 --> 00:01:49,610

stretching across the sky the main part

36

00:01:57,190 --> 00:01:52,490

at a comet is the nucleus it's a small

37

00:02:00,610 --> 00:01:57,200

ball of ice and dust and the coma is the

38

00:02:04,090 --> 00:02:00,620

atmosphere around it and then the tail

39

00:02:06,310 --> 00:02:04,100

is extends out back from the coma why

40

00:02:09,219 --> 00:02:06,320

are we so interested in comments we want

41

00:02:11,470 --> 00:02:09,229

to know how our solar system formed we

42

00:02:13,750 --> 00:02:11,480

want to know if this water that you're

43

00:02:15,760 --> 00:02:13,760

drinking every day was it brought by

44

00:02:18,550 --> 00:02:15,770

billions and billions of comets at some

45

00:02:21,699 --> 00:02:18,560

point and we want to know if your own

46

00:02:26,810 --> 00:02:21,709

body is made from this material that was

47

00:02:26,820 --> 00:02:32,040

[Music]