

A composite image showing the galaxy M51 (the Whirlpool Galaxy) in two different wavelengths. The main part of the image is a reddish-orange view from the Spitzer Space Telescope, highlighting the dust and star formation in the galaxy's spiral arms. To the left, a smaller, bright cyan-colored image shows the same galaxy in a different wavelength, likely representing the starlight component. The background is black with scattered white stars.

Spitzer's infrared view

M51

1
00:00:05,980 --> 00:00:04,070
what's up it's springtime and we have

2
00:00:08,540 --> 00:00:05,990
some galaxies to look at this month I'm

3
00:00:09,740 --> 00:00:08,550
Jane Houston Jones with NASA's Jet

4
00:00:13,400 --> 00:00:09,750
Propulsion Laboratory in Pasadena

5
00:00:16,160 --> 00:00:13,410
California even through binoculars you

6
00:00:18,320 --> 00:00:16,170
can see other galaxies just look to the

7
00:00:22,910 --> 00:00:18,330
north on one side or the other of the

8
00:00:26,810 --> 00:00:22,920
Big Dipper near the Dipper part are a

9
00:00:29,300 --> 00:00:26,820
pair of galaxies called m81 and m82

10
00:00:31,310 --> 00:00:29,310
these two galaxies are very close

11
00:00:34,790 --> 00:00:31,320
together and they can both be seen in

12
00:00:37,160 --> 00:00:34,800
the same binocular or telescope view m81

13
00:00:39,080 --> 00:00:37,170

is a spiral galaxy and it's much bigger

14

00:00:41,450 --> 00:00:39,090

than the other galaxies through a

15

00:00:44,030 --> 00:00:41,460

telescope you can see the spiral arms of

16

00:00:47,540 --> 00:00:44,040

this galaxy and in binoculars what

17

00:00:49,819 --> 00:00:47,550

you'll see is an oval smudge m82 on the

18

00:00:52,430 --> 00:00:49,829

other hand will look in binoculars like

19

00:00:55,010 --> 00:00:52,440

a little straight line in fact its

20

00:00:56,869 --> 00:00:55,020

nickname is the cigar galaxy but through

21

00:01:00,139 --> 00:00:56,879

a telescope you'll actually see little

22

00:01:02,299 --> 00:01:00,149

knots of gas and stars these galaxies

23

00:01:06,350 --> 00:01:02,309

were also imaged by the Spitzer Space

24

00:01:09,080 --> 00:01:06,360

Telescope Spitzer was looking past the

25

00:01:12,500 --> 00:01:09,090

dust at the stars to learn more about

26
00:01:15,109 --> 00:01:12,510
their composition what material is being

27
00:01:18,320 --> 00:01:15,119
blown off of stars and the distribution

28
00:01:20,810 --> 00:01:18,330
of stars in the spiral arms through a

29
00:01:22,640 --> 00:01:20,820
telescope or through binoculars you

30
00:01:24,700 --> 00:01:22,650
won't see the color but you will see a

31
00:01:28,149 --> 00:01:24,710
beautiful shape

32
00:01:30,730 --> 00:01:28,159
on the other side of the Big Dipper near

33
00:01:33,219 --> 00:01:30,740
the handle is m51 the Whirlpool Galaxy

34
00:01:35,800 --> 00:01:33,229
the Whirlpool Galaxy is actually two

35
00:01:38,290 --> 00:01:35,810
galaxies that look to be connected but

36
00:01:40,530 --> 00:01:38,300
they're not this galaxy has also been

37
00:01:43,780 --> 00:01:40,540
studied by the Spitzer Space Telescope

38
00:01:47,170 --> 00:01:43,790

through binoculars m51 will look like a

39

00:01:49,090 --> 00:01:47,180

circular smudge in a telescope you'll

40

00:01:52,570 --> 00:01:49,100

actually be able to see which way the

41

00:01:54,520 --> 00:01:52,580

spiral arms are spiraling in addition to

42

00:01:56,680 --> 00:01:54,530

the galaxies we can also see if both

43

00:01:58,749 --> 00:01:56,690

Saturn and Mars in the western sky this

44

00:02:00,940 --> 00:01:58,759

month it's really fun to look at Mars

45

00:02:04,499 --> 00:02:00,950

right now because the mars phoenix

46

00:02:06,969 --> 00:02:04,509

lander will land at the end of May