



1
00:00:04,710 --> 00:00:02,710

[Music]

2
00:00:07,269 --> 00:00:04,720

what's up for may

3
00:00:09,110 --> 00:00:07,279

the planets of dusk and dawn

4
00:00:11,990 --> 00:00:09,120

a lunar eclipse

5
00:00:14,390 --> 00:00:12,000

and the coma star cluster

6
00:00:16,950 --> 00:00:14,400

may begins and ends with a couple of

7
00:00:19,590 --> 00:00:16,960

great planet spotting opportunities

8
00:00:21,670 --> 00:00:19,600

on may 2nd look to the west about 45

9
00:00:23,910 --> 00:00:21,680

minutes after sunset to find mercury

10
00:00:26,710 --> 00:00:23,920

about 10 degrees off the horizon

11
00:00:28,310 --> 00:00:26,720

accompanied by a slim crescent moon

12
00:00:31,509 --> 00:00:28,320

just to the south of the moon is

13
00:00:33,270 --> 00:00:31,519

brilliant red giant star aldebaran which

14

00:00:35,590 --> 00:00:33,280

should be roughly the same brightness as

15

00:00:37,590 --> 00:00:35,600

mercury and by the way this is the only

16

00:00:40,069 --> 00:00:37,600

chance to spot a naked eye planet in the

17

00:00:42,069 --> 00:00:40,079

early evening until august

18

00:00:44,549 --> 00:00:42,079

then in the last week of may you can

19

00:00:46,709 --> 00:00:44,559

watch each morning as jupiter and mars

20

00:00:47,750 --> 00:00:46,719

get increasingly close in the pre-dawn

21

00:00:50,069 --> 00:00:47,760

sky

22

00:00:51,910 --> 00:00:50,079

their morning meetup culminates in a

23

00:00:54,069 --> 00:00:51,920

close conjunction that you can watch on

24

00:00:55,990 --> 00:00:54,079

the 28th through the 30th where they'll

25

00:00:58,069 --> 00:00:56,000

be separated by barely the width of the

26

00:00:59,750 --> 00:00:58,079

full moon should look incredible with

27

00:01:02,790 --> 00:00:59,760

binoculars where you can also see

28

00:01:04,630 --> 00:01:02,800

jupiter's largest moons

29

00:01:06,469 --> 00:01:04,640

sky watchers in the western hemisphere

30

00:01:08,310 --> 00:01:06,479

can look forward to a total lunar

31

00:01:10,149 --> 00:01:08,320

eclipse in mid-may

32

00:01:12,789 --> 00:01:10,159

the event will be visible across the

33

00:01:14,390 --> 00:01:12,799

americas europe and africa basically

34

00:01:16,789 --> 00:01:14,400

anywhere the moon is visible above the

35

00:01:19,670 --> 00:01:16,799

horizon at the time the visible part of

36

00:01:22,630 --> 00:01:19,680

the eclipse begins about 10 30 pm us

37

00:01:24,469 --> 00:01:22,640

eastern time on may 15th with totality

38

00:01:27,429 --> 00:01:24,479

starting an hour later and lasting for

39

00:01:29,109 --> 00:01:27,439

about an hour and a half

40

00:01:30,870 --> 00:01:29,119

those in the eastern u.s will see the

41

00:01:32,390 --> 00:01:30,880

eclipse start with the moon well above

42

00:01:34,149 --> 00:01:32,400

the horizon

43

00:01:36,149 --> 00:01:34,159

for the central u.s the eclipse starts

44

00:01:39,190 --> 00:01:36,159

about an hour and a half after dark with

45

00:01:41,030 --> 00:01:39,200

the moon relatively low in the sky

46

00:01:43,510 --> 00:01:41,040

on the west coast of the u.s the moon

47

00:01:45,590 --> 00:01:43,520

rises with totality beginning or already

48

00:01:47,429 --> 00:01:45,600

underway so you'll want to find a clear

49

00:01:48,389 --> 00:01:47,439

view toward the southeast viewing from

50

00:01:50,230 --> 00:01:48,399

there

51
00:01:52,550 --> 00:01:50,240
now lunar eclipses are the ones that are

52
00:01:54,469 --> 00:01:52,560
safe to look at directly with your eyes

53
00:01:55,910 --> 00:01:54,479
or binoculars or a telescope unlike

54
00:01:58,149 --> 00:01:55,920
solar eclipses

55
00:02:00,550 --> 00:01:58,159
the moon takes on a dim reddish hue

56
00:02:02,230 --> 00:02:00,560
during the period of totality even

57
00:02:04,310 --> 00:02:02,240
though the moon is fully immersed in

58
00:02:06,230 --> 00:02:04,320
earth's shadow at that time red

59
00:02:07,749 --> 00:02:06,240
wavelengths of sunlight filter through

60
00:02:09,109 --> 00:02:07,759
earth's atmosphere and fall onto the

61
00:02:10,869 --> 00:02:09,119
moon's surface

62
00:02:13,270 --> 00:02:10,879
one way to think of this is that a total

63
00:02:15,750 --> 00:02:13,280

lunar eclipse shows us a projection of

64

00:02:18,070 --> 00:02:15,760

all the sunrises and sunsets happening

65

00:02:19,830 --> 00:02:18,080

on the planet at that moment

66

00:02:22,470 --> 00:02:19,840

so check your local details for this

67

00:02:27,350 --> 00:02:22,480

eclipse and find lots more eclipse info

68

00:02:33,190 --> 00:02:29,589

finally in may a really nice target for

69

00:02:35,910 --> 00:02:33,200

binoculars the coma star cluster

70

00:02:38,229 --> 00:02:35,920

this loose open star cluster displays 40

71

00:02:41,430 --> 00:02:38,239

or 50 stars spread over a region of sky

72

00:02:43,110 --> 00:02:41,440

about three finger widths wide

73

00:02:45,910 --> 00:02:43,120

the brightest stars in the cluster form

74

00:02:47,830 --> 00:02:45,920

a distinctive y shape as seen here

75

00:02:50,150 --> 00:02:47,840

the coma star cluster is located about

76
00:02:52,630 --> 00:02:50,160
300 light years away making it the

77
00:02:55,509 --> 00:02:52,640
second closest open cluster to earth

78
00:02:57,589 --> 00:02:55,519
after the hyades cluster in taurus

79
00:03:00,309 --> 00:02:57,599
to find the coma star cluster look

80
00:03:02,390 --> 00:03:00,319
southward for the constellation leo

81
00:03:04,710 --> 00:03:02,400
it can be easiest to start from the big

82
00:03:06,949 --> 00:03:04,720
dipper toward the north and use the two

83
00:03:08,710 --> 00:03:06,959
pointer stars on the end which always

84
00:03:11,110 --> 00:03:08,720
point you toward leo

85
00:03:13,910 --> 00:03:11,120
once you've identified leo the coma star

86
00:03:15,830 --> 00:03:13,920
cluster is about 15 degrees to the east

87
00:03:18,710 --> 00:03:15,840
of the triangle of stars representing

88
00:03:21,110 --> 00:03:18,720

the lion's hindquarters it's relatively

89

00:03:23,350 --> 00:03:21,120

easy to find with binoculars even under

90

00:03:24,710 --> 00:03:23,360

light polluted urban skies as long as

91

00:03:26,550 --> 00:03:24,720

it's clear out

92

00:03:29,110 --> 00:03:26,560

so here's wishing you clear skies for

93

00:03:30,710 --> 00:03:29,120

finding the coma star cluster and any

94

00:03:33,509 --> 00:03:30,720

other wonders you discover in the night

95

00:03:37,509 --> 00:03:33,519

sky in may

96

00:03:41,350 --> 00:03:39,350

stay up to date with all of nasa's

97

00:03:43,990 --> 00:03:41,360

missions to explore the solar system and

98

00:03:45,670 --> 00:03:44,000

beyond at nasa.gov

99

00:03:47,670 --> 00:03:45,680

i'm preston dykes from nasa's jet