



1
00:00:04,400 --> 00:00:02,750
so you want to visit a black hole you

2
00:00:06,170 --> 00:00:04,410
pack your bags you've updated your

3
00:00:07,400 --> 00:00:06,180
passport and you're basically ready to

4
00:00:09,860 --> 00:00:07,410
jump on a spaceship and blast off

5
00:00:19,099 --> 00:00:09,870
however before you do that I have just

6
00:00:20,210 --> 00:00:19,109
one piece of advice don't okay if you

7
00:00:21,800 --> 00:00:20,220
really must go

8
00:00:23,179 --> 00:00:21,810
I suppose you should at least know a few

9
00:00:25,550 --> 00:00:23,189
things about black holes before you

10
00:00:27,740 --> 00:00:25,560
leave first you should know exactly what

11
00:00:29,480 --> 00:00:27,750
a black hole is a black hole is a

12
00:00:31,460 --> 00:00:29,490
physical object in space just like

13
00:00:32,900 --> 00:00:31,470

everything else it's made up of a tiny

14

00:00:35,000 --> 00:00:32,910

but massive point for gravity and

15

00:00:36,950 --> 00:00:35,010

density are infinite a line beyond which

16

00:00:39,080 --> 00:00:36,960

everything including light can only fall

17

00:00:40,400 --> 00:00:39,090

into that tiny point and sometimes some

18

00:00:43,400 --> 00:00:40,410

glowing stuff will burning around it and

19

00:00:45,979 --> 00:00:43,410

maybe some radiation so basically here

20

00:00:49,549 --> 00:00:45,989

is kind of bad here is really bad and

21

00:00:51,619 --> 00:00:49,559

here is also black holes mostly come in

22

00:00:54,560 --> 00:00:51,629

two sizes don't ask me why we still

23

00:00:57,590 --> 00:00:54,570

aren't sure however a black hole is also

24

00:00:59,720 --> 00:00:57,600

not a lot of things it is not a hole a

25

00:01:01,549 --> 00:00:59,730

cosmic vacuum cleaner a portal to

26
00:01:04,100 --> 00:01:01,559
another dimension populated by unicorns

27
00:01:09,020 --> 00:01:04,110
in space potatoes and absolutely not a

28
00:01:10,550 --> 00:01:09,030
good place to vacation okay fine I guess

29
00:01:12,620 --> 00:01:10,560
next you'll need to know how to find a

30
00:01:14,030 --> 00:01:12,630
black hole though technically black

31
00:01:16,039 --> 00:01:14,040
holes could just sneak up behind you

32
00:01:18,590 --> 00:01:16,049
they likely won't the nearest known one

33
00:01:20,300 --> 00:01:18,600
is 3,000 light-years away anyway however

34
00:01:21,980 --> 00:01:20,310
if you were to go looking for a man

35
00:01:23,420 --> 00:01:21,990
there are a couple of good ways to find

36
00:01:24,800 --> 00:01:23,430
them first

37
00:01:26,539 --> 00:01:24,810
black holes tend to mess with their

38
00:01:28,429 --> 00:01:26,549

environment so you can sometimes use

39

00:01:30,260 --> 00:01:28,439

interesting clues such as a bunch of

40

00:01:32,300 --> 00:01:30,270

stuff opening what appears to be nothing

41

00:01:34,310 --> 00:01:32,310

and second as we mentioned before

42

00:01:36,319 --> 00:01:34,320

there's open glowing stuff orbiting

43

00:01:37,719 --> 00:01:36,329

around them caused by well when things

44

00:01:39,880 --> 00:01:37,729

get to coops

45

00:01:41,410 --> 00:01:39,890

so now that you found a black hole and

46

00:01:43,779 --> 00:01:41,420

clearly aren't listening to me saying

47

00:01:46,929 --> 00:01:43,789

not to go it's time for a few important

48

00:01:48,429 --> 00:01:46,939

safety considerations first of all the

49

00:01:50,700 --> 00:01:48,439

good news is that as long as you stay

50

00:01:53,469 --> 00:01:50,710

far away black doors are not that bad

51
00:01:55,569 --> 00:01:53,479
however as you get closer you need to

52
00:01:56,740 --> 00:01:55,579
keep a few things in mind the radiation

53
00:01:58,480 --> 00:01:56,750
near the black hole can be extremely

54
00:02:00,669 --> 00:01:58,490
deadly the chances of escape could

55
00:02:02,319 --> 00:02:00,679
slimmer the closer you get and if you

56
00:02:03,669 --> 00:02:02,329
get close enough you now have to worry

57
00:02:06,100 --> 00:02:03,679
about being stretched into a giant

58
00:02:07,990 --> 00:02:06,110
noodle and time getting really weird so

59
00:02:09,910 --> 00:02:08,000
unless you have great radiation shields

60
00:02:11,500 --> 00:02:09,920
a faster than light spaceship or your

61
00:02:14,949 --> 00:02:11,510
completely indestructible you should

62
00:02:16,930 --> 00:02:14,959
probably just stay away well that pretty

63
00:02:18,100 --> 00:02:16,940

much sums up black holes at least before

64

00:02:20,650 --> 00:02:18,110

things start getting pretty complicated

65

00:02:22,240 --> 00:02:20,660

but before you go for real please refer

66

00:02:23,650 --> 00:02:22,250

to the Handy brochure on your spacesuit

67

00:02:26,530 --> 00:02:23,660

pocket since there's quite a bit to