

Episode 2



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00:00:00,000 --> 00:00:01,833



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00:00:01,833 --> 00:00:07,333

Now that you've learned about the basic solitary black hole, let's start talking about some fancier ones!

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00:00:07,333 --> 00:00:09,500

While black holes themselves are indeed black,

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00:00:09,500 --> 00:00:13,000

they can also be a bright source of light, putting on a great show if things like

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00:00:13,000 --> 00:00:19,166

gas, dust, snacks, potatoes, missing left socks, or even stars get a bit too close.

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00:00:19,166 --> 00:00:21,666

Often, this stuff can turn into an accretion disk,

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00:00:21,666 --> 00:00:28,166

which is basically just a bunch of gas, dust, and, um, other stuff ... circling the black hole in, well, a disk.

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00:00:28,166 --> 00:00:33,583

Anyway, as everything spirals in, it gets super-hot and causes the wonderful spectacle we see here.

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00:00:33,583 --> 00:00:36,333

Black holes can also show off by launching powerful jets,

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00:00:36,333 --> 00:00:41,000

which are made when some of the stuff falls toward the black hole, gets sped up to nearly the speed of light,

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00:00:41,000 --> 00:00:44,333

and then gets thrown off at ... also nearly the speed of light!

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00:00:44,333 --> 00:00:49,583

Some of this stuff, in the form of light and charged particles,
can even make it all the way to planets like Earth!

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00:00:49,583 --> 00:00:54,583

The most amazing thing about all this, though, is that it could actually appear
as many kinds of brilliant, bright light,

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00:00:54,583 --> 00:00:57,166

including lots of light we can't see with our eyes!

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00:00:57,166 --> 00:01:00,250

So, if you really want to see a fancy black hole in all its glory,

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00:01:00,250 --> 00:01:04,500

it could help to have a lot of different telescopes that can see all the fanciness.