

Episode 1



1
00:00:00,000 --> 00:00:03,916

■
NARRATOR: So, you're looking to find – and watch – some black holes.

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00:00:03,916 --> 00:00:07,000

And there are quite a few of them, so you're in for a treat!

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00:00:07,000 --> 00:00:11,833

But, before you get to all the fancy ones,
let's first take a look at some of the simplest ones.

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00:00:11,833 --> 00:00:18,166

After all, looking at the fancy ones first would be like trying to spot
a Zordorgian Grandlebuss before you even know basic Grandlebuss anatomy,

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00:00:18,166 --> 00:00:19,916
and that would just be silly.

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00:00:19,916 --> 00:00:25,583
Anyway, your basic, solitary black hole is,
well, basic ... er, relatively speaking.

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00:00:25,583 --> 00:00:28,166
It has a lot of mass, a bit of spin,

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00:00:28,166 --> 00:00:32,333
a boundary inside of which everything,
including light, can only fall inward,

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00:00:32,333 --> 00:00:36,000
and beyond that, well, um, we actually have no idea.

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00:00:36,000 --> 00:00:40,583
However, because solitary black holes are so simple,
they're quite hard to spot.

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00:00:40,583 --> 00:00:45,416
But, if you have a keen eye, you might be able to
catch a glimpse of them by looking at their surroundings.

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00:00:45,416 --> 00:00:48,500

For example, black holes bend the light traveling past them,

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00:00:48,500 --> 00:00:52,750

and you can see this effect – called “lensing” –
around the edge of the black hole.

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00:00:52,750 --> 00:00:54,166

There you are!

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00:00:54,166 --> 00:00:59,250

Also, because black holes tend to mess with their environments,
you can sometimes find one by using other clues,

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00:00:59,250 --> 00:01:02,500

such as a bunch of stuff orbiting what appears to be ... nothing.