

# Black Holes

Black holes are some of the most mysterious objects in space. Some scientists believe that they form when giant stars explode and collapse into dense regions of matter. The gravitational pull of these areas is so strong that even light can't escape. In fact, anything that comes too close is stretched apart! So, the Lord Jesus placed them at a safe distance from Earth. Each one declares His great power!

- ✓ Black holes don't let light escape, so scientists look at how they affect the things around them.
- ✓ Time slows down near a black hole because of its ultra-strong gravitational field.
- ✓ The bright rings that surround many black holes are called accretion disks. These are made up of celestial material that's stretched as it spins around the hole.
- ✓ Scientists believe there are 100 million black holes in the Milky Way galaxy alone.



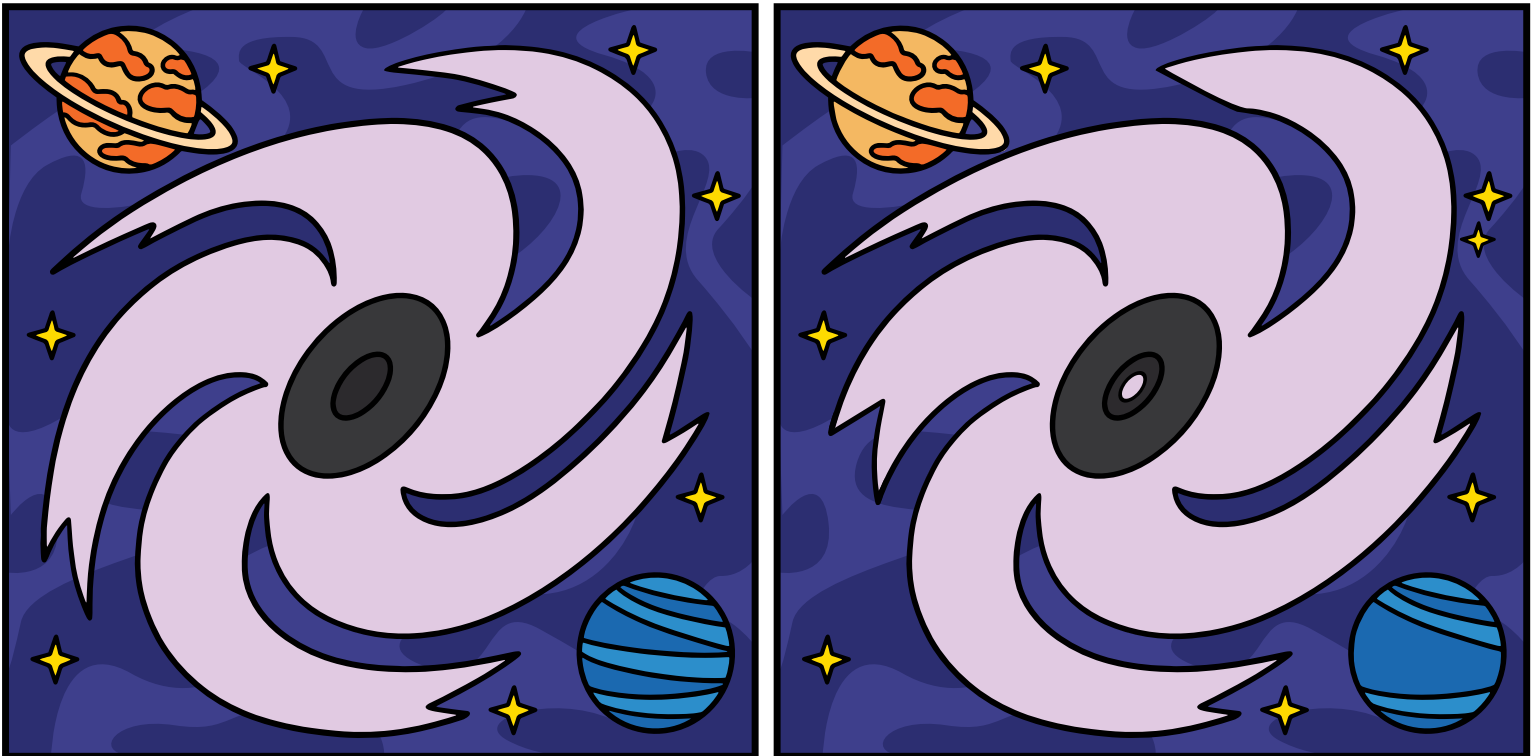
## Black Hole Activity

Supplies: a magnet and several paper clips

1. Place the magnet on a table and pretend it's a black hole.
2. Slowly move one paper clip closer and closer to the magnet.
3. At some point, the magnet's pull will quickly draw the paper clip to itself.

The paper clip's movement acts like an object falling into a black hole.

Circle the six differences between these two pictures.





Find these objects hidden in the picture above.



Giant red star

### Fill in the Blanks

“By \_\_\_\_\_  
we understand that the  
worlds were framed by the  
\_\_\_\_\_ of  
God, so that the things which  
are \_\_\_\_\_  
were not made of things  
which are \_\_\_\_\_.”  
(Hebrews 11:3)

### Did you know?

As an object approaches  
a black hole, it's stretched  
into a noodle shape. This is  
known as “spaghettification.”

Answers to Fill in the Blanks: faith, word,  
seen, visible