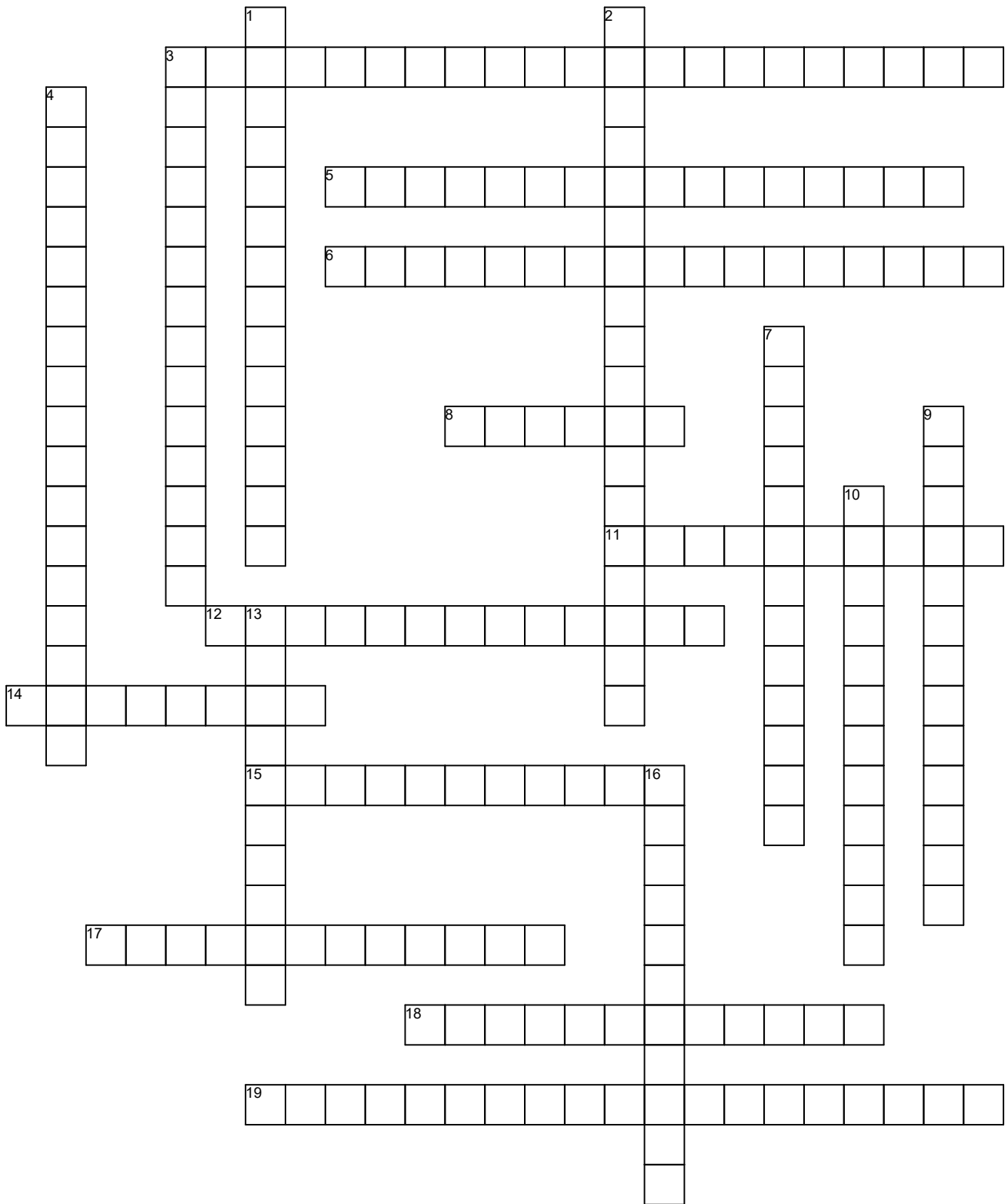


Black Holes Crossword Puzzle

1. Using the Across and Down clues, write the correct answer in the numbered grid below.



ACROSS

3. The network of telescopes that captured the first image of a black hole.
5. The theoretical radiation emitted by black holes due to quantum effects.
6. The immense force that draws objects into a black hole.
8. An energetic and distant celestial object powered by a supermassive black hole.
11. The region near a rotating black hole where objects can still escape but are strongly influenced by its spin.
12. The effect of a spinning black hole on nearby spacetime.
14. A hypothetical shortcut through spacetime that may connect black holes.
15. The differential gravitational forces experienced near a black hole.
17. The boundary around a black hole beyond which nothing can escape.
18. A classification of black holes with millions or billions of solar masses.
19. The distance from a black hole's center to its event horizon.

gravitational pull
event horizon
event horizon telescope
frame dragging
singularity
ergosphere
tidal forces

DOWN

1. A mechanism that extracts energy from a rotating black hole.
2. The material between stars that can feed into a black hole's accretion disk.
3. The speed needed to break free from a black hole's gravitational grip.
4. The stretching and elongation of objects as they approach a black hole.
7. The study of black holes through high-energy X-ray emissions.
9. A rotating disk of matter and gas that spirals into a black hole.
10. The region around a black hole where light can orbit in stable paths.
13. Einstein's theory that describes the behavior of gravity and spacetime.
16. The infinitely dense core of a black hole.

Schwarzschild radius
X-ray astronomy
wormhole
interstellar medium
penrose process
relativity
photon sphere

supermassive
spaghettification
escape velocity
quasar
accretion disk
Hawking radiation