

• Quizzes

Black Holes

Basic

• What is the accretion disc of a black hole?

- A – the boundary of the area that light cannot escape from
- B – the area at the centre of the black hole
- C – an area of hot gas falling into the black hole

• What is the event horizon of a black hole?

- A – the boundary of the area that light cannot escape from
- B – the area at the centre of the black hole
- C – an area of hot gas falling into the black hole

• What is the singularity of a black hole?

- A – the boundary of the area that light cannot escape from
- B – the area at the centre of the black hole
- C – an area of hot gas falling into the black hole

• How large is the area at the centre of a black hole?

- A – a single point
- B – 4 times as large as our Sun
- C – a few km across

Advanced

• How massive must a star be for its collapse to lead to a black hole?

- A – at least 4 times as massive as our Sun
- B – at least 20 times as massive as our Sun
- C – at least 100 times as massive as our Sun

• What happens in a supernova explosion?

- A – the star is dragging in material from its surroundings
- B – the star is burning all of its fuel at once
- C – the outward layers of the star are blown outwards

• Which of the following describes what is it like at the centre of the black hole?

- A – the gravitational pull is enormous
- B – nuclear reactions are taking place
- C – matter is being thrown out at high speed

• How can material be thrown from around the black hole?

- A – if the material is very hot
- B – if the black hole is spinning rapidly
- C – if the black hole has run out of fuel

Scale of the Universe

Basic

- Approximately how wide is the planet Earth?

A – 6300 km
 B – 12,800 km
 C – 34,000 km

- How wide is the Solar System?

A – 1,000,000 km
 B – 1.6 light years
 C – 100,000 light years

- How large is the Universe?

A – 120 million light years across
 B – billions of light years across
 C – billions of light years across and still expanding

Advanced

- What is the distance across the Milky Way?

A – 100,000 light years
 B – 5 million light years
 C – 120 million light years

- What is the distance across the Local Group?

A – 100,000 light years
 B – 5 million light years
 C – 120 million light years

- What is the distance across the Local Supercluster?

A – 5 million light years
 B – 120 million light years
 C – billions of light years