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# **Level 5 - 13th April, 2019**

### Astronomers release first ever photo of black hole

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https://breakingnewsenglish.com/1904/190413-black-hole-5.html

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Please try Levels 4 and 6. They are (a little) harder.

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### THE READING

From https://breakingnewsenglish.com/1904/190413-black-hole-5.html

Astronomers have taken the first ever image of a black hole. It is in a distant galaxy called M87, 500 million trillion km from Earth. That number is a five followed by twenty zeroes. Scientists say the black hole has a diameter of 40 billion km and is three million times larger than Earth. The lead astronomer said: "What we see is larger than the size of our entire Solar System. It has a mass 6.5 billion times that of the Sun....It is an absolute monster - the heavyweight champion of black holes in the Universe." He added that it was one of the heaviest black holes in space.

The image was captured by a network of eight telescopes called the Event Horizon Telescope (EHT). No single telescope is powerful enough to record the image. The EHT telescopes are located on volcanoes in Hawaii and Mexico, mountains in the USA and Spain, a desert in Chile, and in Antarctica. A team of 200 scientists used the telescopes to scan the M87 galaxy over 10 days. The data was stored on hundreds of hard drives and processed to produce the image. It is now a landmark in space exploration. A professor called it "an extraordinary scientific feat".

Sources: https://www.**bbc.com**/news/science-environment-47873592

https://www.sciencenews.org/article/black-hole-first-picture-event-horizon-telescope

https://edition. cnn.com/2019/04/10/world/black-hole-photo-scn/index.html

### PHRASE MATCHING

From https://breakingnewsenglish.com/1904/190413-black-hole-5.html

#### **PARAGRAPH ONE:**

- 1. It is in a distant
- a five followed
- 3. a diameter
- 4. larger than the size of our entire
- 5. It has a mass 6.5 billion times
- 6. It is an
- 7. the heavyweight
- 8. it was one of the

- a. absolute monster
- b. Solar System
- c. heaviest black holes
- d. of 40 billion km
- e. by twenty zeroes
- f. champion
- g. galaxy called M87
- h. that of the Sun

#### **PARAGRAPH TWO:**

- 1. a network
- 2. No single telescope is
- 3. telescopes are located
- 4. a desert
- 5. scan the M87 galaxy
- 6. stored on hundreds of
- 7. a landmark in space
- 8. an extraordinary scientific

- a. powerful enough
- b. exploration
- c. over 10 days
- d. feat
- e. on volcanoes
- f. of eight telescopes
- q. in Chile
- h. hard drives

# **LISTEN AND FILL IN THE GAPS**

From <a href="https://breakingnewsenglish.com/1904/190413-black-hole-5.html">https://breakingnewsenglish.com/1904/190413-black-hole-5.html</a>

Astronomers have taken t	he (1)			of a blac	k hole. It is
in a distant galaxy called	M87, (2)			km 1	from Earth.
That number is a (3)		twei	nty ze	roes. Sc	ientists say
the black hole has a diar	meter of 40	billion km a	and is	three m	illion times
larger than Earth. The lead	d astronome	r said: "What	t we s	ee is larg	er than the
SiZe (4)	Solar S	System. It ha	as a m	ass 6.5 l	oillion times
that of the SunIt is	(5)			- the h	eavyweight
champion of black holes	in the Un	iverse." He	adde	d that i	t was one
(6)	black holes	in space.			
The image was (7)		network	of eig	jht teleso	copes called
the Event Horizon	Telescope	(EHT).	No	single	telescope
(8)	_ to record	the image.	The	EHT tele	scopes are
located on volcanoes in Hawaii and Mexico, mountains in the USA and Spain,					
(9)	Chile, and	in Antarctica	. A tea	am of 20	0 scientists
used the telescopes to scan the M87 $_{(10)}$ days. The					
data was stored (11) hard drives and processed to					
produce the image. It is now (12) space exploration.					
A professor called it "an extraordinary scientific feat".					

# PUT A SLASH ( / )WHERE THE SPACES ARE

From https://breakingnewsenglish.com/1904/190413-black-hole-5.html

Astronomershavetakenthefirsteverimageofablackhole. Itisinadistan tgalaxycalledM87,500milliontrillionkmfromEarth.Thatnumberisafiv efollowedbytwentyzeroes. Scientistssaytheblackholehasadiametero f40billionkmandisthreemilliontimeslargerthanEarth.Theleadastron omersaid: "WhatweseeislargerthanthesizeofourentireSolarSystem. Ithasamass6.5billiontimesthatoftheSun....ItisanabsolutemonstertheheavyweightchampionofblackholesintheUniverse."Headdedthat itwasoneoftheheaviestblackholesinspace. Theimagewascaptured by anetworkofeighttelescopescalledtheEventHorizonTelescope(EHT). Nosingletelescopeispowerfulenoughtorecordtheimage. The EHT teles copesarelocatedonvolcanoesinHawaiiandMexico, mountainsintheUS AandSpain,adesertinChile,andinAntarctica.Ateamof200scientistsus edthetelescopestoscantheM87galaxyover10days.Thedatawasstore donhundredsofharddrivesandprocessedtoproducetheimage. Itisno walandmarkinspaceexploration. Aprofessor called it "an extraordinary scientificfeat".

### **BLACK HOLES SURVEY**

From https://breakingnewsenglish.com/1904/190413-black-hole-4.html

Write five GOOD questions about black holes in the table. Do this in pairs. Each student must write the questions on his / her own paper.

When you have finished, interview other students. Write down their answers.

	STUDENT 1	STUDENT 2	STUDENT 3
Q.1.			
Q.2.			
Q.3.			
Q.4.			
Q.5.			

- Now return to your original partner and share and talk about what you found out. Change partners often.
- Make mini-presentations to other groups on your findings.

# WRITE QUESTIONS & ASK YOUR PARTNER(S)

Student A: Do not show these to your speaking partner(s).

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TE Q	More free lessons at breakingnewsenglish.com  UESTIONS & ASK YOUR PARTN
	UESTIONS & ASK YOUR PARTN not show these to your speaking partner(s).
	UESTIONS & ASK YOUR PARTN

Level · 5 Astronomers release first ever photo of black hole – 13th April

# **WRITING**

From <a href="https://breakingnewsenglish.com/1904/190413-black-hole-5.html">https://breakingnewsenglish.com/1904/190413-black-hole-5.html</a>

Write about <b>black</b>	holes for 10 i	minutes. Re	ad and talk a	about your par	tner's paper.