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BUSINESS INSIDER

11 Great Stephen Hawking Quotes For His 71st Birthday

Erin McCarthy, Mental_Floss | Jan. 10, 2013, 6:29 PM | 55,460 | 2

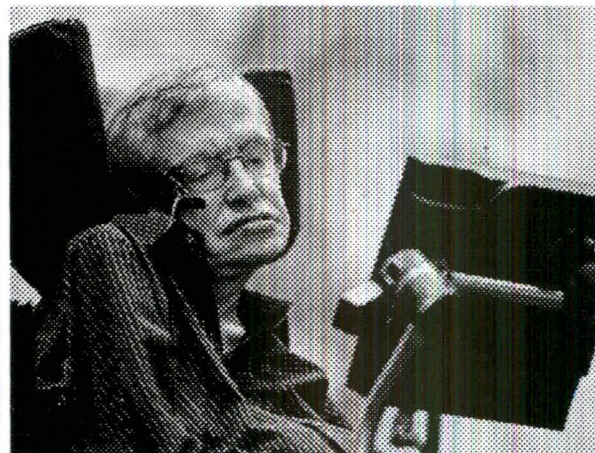
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When Stephen Hawking was diagnosed with motor neurone disease at age 21, doctors thought he'd only survive a few more years. But the theoretical physicist defied the odds: Hawking turned 71 this week on January 8, 2013.

Here are 11 quotes from the Director of Research at the Centre for Theoretical Cosmology at Cambridge and author of "A Brief History of Time."

Happy birthday, professor!

This story was originally published by mental_floss.



AP Photo/Elizabeth Dalziel

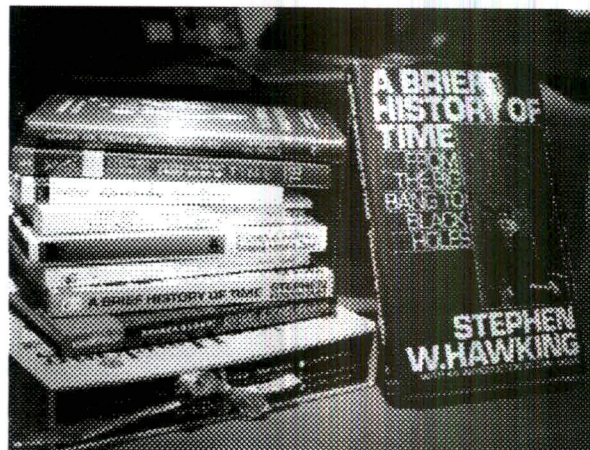
mental_floss

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- The Magic of David Copperfield, 1976
- How Scientists Captured the First-Ever Video of a Giant Squid

On His Schooling

"At school, I was never more than about halfway up the class. It was a very bright class. **My classwork was very untidy, and my handwriting was the despair of my teachers. But my classmates gave me the nickname Einstein, so presumably they saw signs of something better.** When I was twelve, one of my friends bet another friend a bag of sweets that I would never come to anything. I don't know if this bet was ever settled, and if so, which way it was decided..."

From the lecture "My Brief History", 2010.

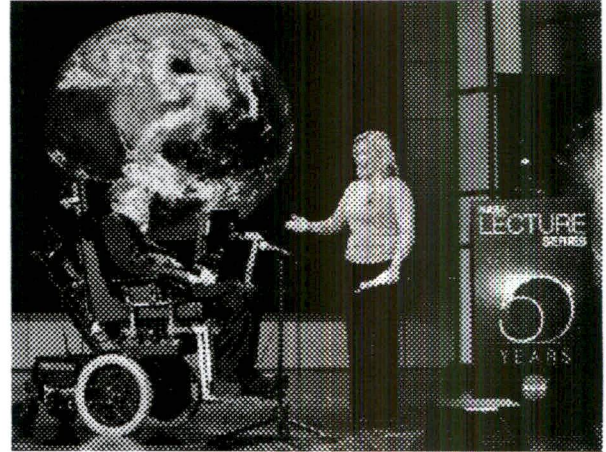


AP Photo/Alestan Grant

On Contacting Aliens:

"If aliens visit us, the outcome would be much as when Columbus landed in America, which didn't turn out well for the Native Americans. We only have to look at ourselves to see how intelligent life might develop into something we wouldn't want to meet."

From "Into the Universe with Stephen Hawking," 2010.

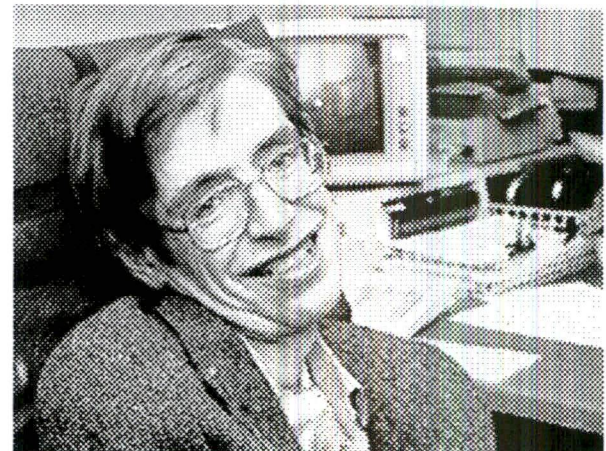


AP Photo/NASA, Paul E. Alers

On the Eureka Moment Scientific Discovery:

"I wouldn't compare it to sex, but it lasts longer."

From a lecture at Arizona State University, April 2011.



wikipedia commons

On Disability:

"If you are disabled, it is probably not your fault, but it is no good blaming the world or expecting it to take pity on you. One has to have a positive attitude and must make the best of the situation that one finds oneself in; if one is physically disabled, one cannot afford to be psychologically disabled as well. In my opinion, one should concentrate on activities in which one's physical disability will not present a serious handicap. I am afraid that Olympic Games for the disabled do not appeal to me, but it is easy for me to say that because I



AP Photo/Vincent Yu

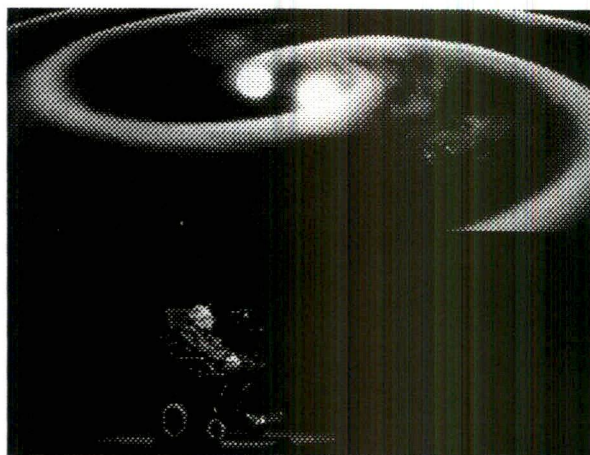
never liked athletics anyway. On the other hand, **science is a very good area for disabled people because it goes on mainly in the mind. Of course, most kinds of experimental work are probably ruled out for most such people, but theoretical work is almost ideal.** My disabilities have not been a significant handicap in my field, which is theoretical physics. Indeed, they have helped me in a way by shielding me from lecturing and administrative work that I would otherwise have been involved in. I have managed, however, only because of the large amount of help I have received from my wife, children, colleagues and students. I find that people in general are very ready to help, but you should encourage them to feel that their efforts to aid you are worthwhile by doing as well as you possibly can."

From "Handicapped People and Science," Science Digest 92, No. 9, September 1984.

On Time Travel:

"I would go back to 1967, and the birth of my first child, Robert. My three children have brought me great joy."

To the The New York Times, May 2011.



AP Photo/Teri S. Warren

On Fate vs. Free Will:



Caregiver Monica Guy, left, assists astrophysicist Stephen Hawking as the crew of the Zero Gravity 727 plane applauds on the tarmac at the Kennedy Space Center landing strip in Cape Canaveral, Fla. Thursday, April 26, 2007. Hawking had just completed a zero-gravity flight from KSC.

AP Photo/Peter Cosgrove

"I have noticed that even people who claim everything is predetermined and that we can do nothing to change it, look before they cross the road."

From "Black Holes and Baby Universes and Other Essays."

On Science vs. Religion:

"There is a fundamental difference between religion, which is based on authority, [and] science, which is based on observation and reason. Science will win, because it works."

To Diane Sawyer/ABC News, June 2010.



AP Photo/L'Osservatore Romano, HD

On Imperfection:

"Next time someone complains that you have made a mistake, tell him that may be a good thing. Because without imperfection, neither you nor I would exist."

From "Into the Universe with Stephen Hawking," 2010.



Former President Nelson Mandela, right, meets with British scientist Professor Stephen Hawking, left, in Johannesburg.
(AP Photo/Denis Farrell/pool)

On His I.Q.:

"I have no idea. People who boast about their I.Q. are losers."

To the The New York Times, December 2004.



(AP Photo/Ted S. Warren)

On Women:

"They are a complete mystery."

To the New Scientist, January 2012.



On the Advice He Gave His Children:

"One, remember to look up at the stars and not down at your feet. Two, never give up work. Work gives you meaning and purpose and life is empty without it. Three, if you are lucky enough to find love, remember it is there and don't throw it away."

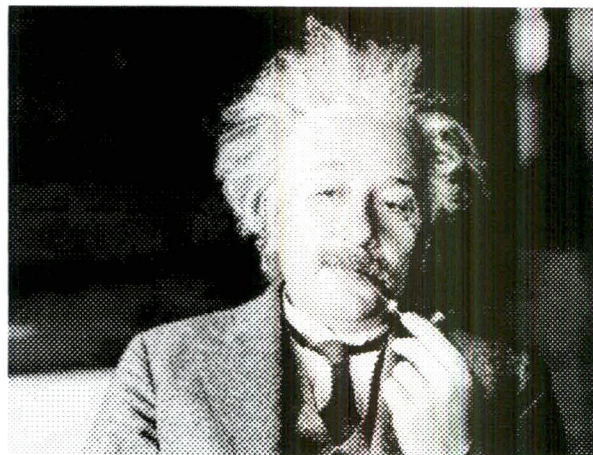
To Diane Sawyer/ABC News, June 2010.



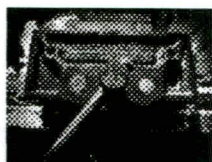
Stephen Hawking poses with his new wife Elaine Mason
AP Photo/Lynne Sladky

Now get to know the man who his classmates nicknamed him after.

Everything You Ever Wanted To Know About Albert Einstein >



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Stephen Hawking Quotes In Spotlight As Famous Physicist Celebrates 71st Birthday (PHOTOS)

The Huffington Post | Posted: 01/08/2013 1:17 pm EST | Updated: 01/08/2013 1:17 pm EST



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Happy birthday, Stephen Hawking. The world's most famous physicist turns 71 on Tuesday, and fans everywhere are using the occasion to reflect on his contributions not only to science but also to popular culture.

Hawking, who was [born in Oxford, England on January 8, 1942](#), has been featured on "The Simpsons," "Star Trek," and "[The Big Bang Theory](#)" (in which he opposed Sheldon Cooper in an intense game of Words With Friends).

In addition, he's been outspoken on topics ranging from alien life to religion. Check out the slideshow below for 11 of Professor Hawking's most memorable quotations.

Stephen Hawking Quotes

Page: 2

People who boast about their I.Q. are losers.

Stephen Hawking

Losers, Boast

Scientists have become the bearers of the torch of discovery in our quest for knowledge.

Stephen Hawking

Knowledge, Become, Discovery

Someone told me that each equation I included in the book would halve the sales.

Stephen Hawking

Someone, Book, Sales

Time travel used to be thought of as just science fiction, but Einstein's general theory of relativity allows for the possibility that we could warp space-time so much that you could go off in a rocket and return before you set out.

Stephen Hawking

Thought, Before, Travel

We should seek the greatest value of our action.

Stephen Hawking

Greatest, Action, Value

With genetic engineering, we will be able to increase the complexity of our DNA, and improve the human race. But it will be a slow process, because one will have to wait about 18 years to see the effect of changes to the genetic code.

Stephen Hawking

Human, Wait, Able

I don't think the human race will survive the next thousand years, unless we spread into space.

Stephen Hawking

Human, Next, Space

I would like nuclear fusion to become a practical power source. It would provide an inexhaustible supply of energy, without pollution or global warming.

Stephen Hawking

Power, Without, Become

It is generally recognised that women are better than men at languages, personal relations and multi-tasking, but less good at map-reading and spatial awareness. It is therefore not unreasonable to

suppose that women might be less good at mathematics and physics.

Stephen Hawking

Women, Men, Better

Science is not only a disciple of reason but, also, one of romance and passion.

Stephen Hawking

Passion, Reason, Science

There is a real danger that computers will develop intelligence and take over. We urgently need to develop direct connections to the brain so that computers can add to human intelligence rather than be in opposition.

Stephen Hawking

Human, Real, Need

There is no unique picture of reality.

Stephen Hawking

Reality, Picture, Unique

Work gives you meaning and purpose and life is empty without it.

Stephen Hawking

Without, Purpose, Meaning

Evolution has ensured that our brains just aren't equipped to visualise 11 dimensions directly. However, from a purely mathematical point of view it's just as easy to think in 11 dimensions, as it is to think in three or four.

Stephen Hawking

Easy, Point, Three

I believe everyone should have a broad picture of how the universe operates and our place in it. It is a basic human desire. And it also puts our worries in perspective.

Stephen Hawking

Believe, Human, Place

I believe in universal health care. And I am not afraid to say so.

Stephen Hawking

Believe, Health, Care

I don't want to write an autobiography because I would become public property with no privacy left.

Stephen Hawking

Become, Write, Public

I enjoy all forms of music - pop, classical and opera.

Stephen Hawking

Music, Enjoy, Classical

I think the brain is essentially a computer and consciousness is like a computer program. It will cease to run when the computer is turned off. Theoretically, it could be re-created on a neural network, but that would be very difficult, as it would require all one's memories.

Stephen Hawking

Brain, Off, Difficult

No one can resist the idea of a crippled genius.

Stephen Hawking

Idea, Genius, Resist

Obviously, because of my disability, I need assistance. But I have always tried to overcome the limitations of my condition and lead as full a life as possible. I have traveled the world, from the Antarctic to zero gravity.

Stephen Hawking

Need, Possible, Full

Theology is unnecessary.

Stephen Hawking

Theology

There are grounds for cautious optimism that we may now be near the end of the search for the ultimate laws of nature.

Stephen Hawking

End, May, Nature

Why are we here? Where do we come from? Traditionally, these are questions for philosophy, but philosophy is dead.

Stephen Hawking

Come, Philosophy, Why

All my adult life people have been helping me.

Stephen Hawking

Adult, Helping

Stephen Hawking quotes (showing 51-92 of 92)

"The Universe in a Nutshell"

— [Stephen Hawking](#)

11 people liked it

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"When people ask me if a god created the universe, I tell them that the question itself makes no sense. Time didn't exist before the big bang, so there is no time for god to make the universe in. It's like asking directions to the edge of the earth; The Earth is a sphere; it doesn't have an edge; so looking for it is a futile exercise. We are each free to believe what we want, and it's my view that the simplest explanation is; there is no god. No one created our universe, and no one directs our fate. This leads me to a profound realization; There is probably no heaven, and no afterlife either. We have this one life to appreciate the grand design of the universe, and for that I am extremely grateful."

— [Stephen Hawking](#)

tags: atheism, god, life, reality, religion

10 people liked it

[like](#)

"Simplicity is a matter of taste"

— [Stephen Hawking](#), *The Grand Design*

9 people liked it

[like](#)

"Eternity is a long time, especially towards the end."

— [Stephen Hawking](#)

9 people liked it

[like](#)

"Up to now, most scientists have been too occupied with the development of new theories that describe *what* the universe is to ask the question *why*. On the other hand, the people whose business it is to ask *why*, the philosophers, have not been able to keep up with the advance of scientific theories....However, if we do discover a complete theory, it should in time be understandable in broad principle by everyone, not just a few scientists. Then we shall all, philosophers, scientists, and just ordinary people, be able to take part in the discussion of the question of why it is that we and the universe exist. If we find the answer to that, it would be the ultimate triumph of human reason--for then we would know the mind of God."

— [Stephen Hawking](#)

8 people liked it

[like](#)

"The human capacity for guilt is such that people can always find ways to blame themselves"

— [Stephen Hawking](#), *The Grand Design*

8 people liked it

[like](#)

"Not to take this web of dualities as a sign we are on the right track would be a bit like believing that God put fossils into the rocks in order to mislead Darwin about the evolution of life."

— [Stephen Hawking](#)

7 people liked it

[like](#)

"If you remember every word in this book, your memory will have recorded about two million pieces of information: the order in your brain will have increased by about two million units. However, while you have been reading the book, you will have converted at least a thousand calories of ordered energy, in the form of food, into disordered energy, in the form of heat that you lose to the air around you by convection and sweat. This will increase the disorder of the universe by about twenty million million million million units - or about ten million million million times the increase in order in your brain - and that's if you remember everything in this book."

— [Stephen Hawking](#), *A Brief History of Time*

7 people liked it

[like](#)

"The universe doesn't allow perfection."

— [Stephen Hawking](#), *A Brief History of Time*

7 people liked it

[like](#)

"It's the gravity that shapes the large scale structure of the universe, even though it is the weakest of four categories of forces"

— Stephen Hawking, *A Briefer History of Time*

6 people liked it

like

"If there really is a complete unified theory that governs everything, it presumably also determines your actions. But it does so in a way that is impossible to calculate for an organism that is as complicated as a human being. The reason we say that humans have free will is because we can't predict what they will do."

— Stephen Hawking, *A Briefer History of Time*

6 people liked it

like

"I regard the brain as a computer which will stop working when its components fail. There is no heaven or afterlife for broken down computers; that is a fairy story for people afraid of the dark."

— Stephen Hawking

6 people liked it

like

"In this way, Edwin Hubble worked out the distances to nine different galaxies. We now know that our galaxy is only one of some hundred thousand million that can be seen using modern telescopes, each galaxy itself containing some hundred thousand million stars."

— Stephen Hawking

6 people liked it

like

"We each exist for but a short time, and in that time explore but a small part of the whole universe"

— Stephen Hawking

5 people liked it

like

"Scientists tend to risk theories they admire"

— Stephen Hawking, *The Grand Design*

5 people liked it

like

"In the eighteenth century, philosophers considered the whole of human knowledge, including science, to be their field and discussed questions such as: Did the universe have a beginning? However, in the nineteenth and twentieth centuries, science became too technical and mathematical for the philosophers, or anyone else except a few specialists. Philosophers reduced the scope of their inquiries so much that Wittgenstein, the most famous philosopher of this century, said, "The sole remaining task for philosophy is the analysis of language." What a comedown from the great tradition of philosophy from Aristotle to Kant!"

— Stephen Hawking, *A Briefer History of Time*

tags: philosophy, science, wittgenstein

5 people liked it

like

"The universe does not behave according to our pre-conceived ideas. It continues to surprise us."

— Stephen Hawking

5 people liked it

like

"There is no way that we can predict the weather six months ahead beyond giving the seasonal average"

— Stephen Hawking, *Black Holes and Baby Universes*

tags: climate-change, forecasting, global-warming, weather

4 people liked it

like

"Each exists for but a short time, and in that time explore but a small part of the whole universe."

— Stephen Hawking, *The Grand Design*

4 people liked it

like

"We believe human beings have existed for only a small fraction of cosmic history, because human race has been improving so rapidly in knowledge and technology that if people had been around for millions of years, the human race would be much further along in it's mastery."

— Stephen Hawking, *The Grand Design*

4 people liked it

like

"I'm the archetype of a disabled genius, or should I say a physically challenged genius, to be politically correct. At least I'm obviously physically challenged. Whether I'm a genius is more open to doubt."

— [Stephen Hawking](#)

4 people liked it

[like](#)

"To confine our attention to terrestrial matters would be to limit the human spirit."

"We are just an advanced breed of monkeys on a minor planet of a very average star. But we can understand the Universe. That makes us something very special."

— [Stephen Hawking](#)

— [Stephen Hawking](#)

4 people liked it

[like](#)

"In his eyes shone the reflection of the most beautiful planet in the Universe---a planet that is not too hot and not too cold; that has liquid water on the surface and where the gravity is just right for human beings and the atmosphere is perfect for them to breathe; where there are mountains and deserts and oceans and islands and forests and trees and birds and plants and animals and insects and people---lots and lots of people. Where there is life. Some of it, possibly, intelligent."

— [Stephen Hawking](#), *George's Cosmic Treasure Hunt*

4 people liked it

[like](#)

"As those who have seen Jurassic Park will know, this means a tiny disturbance in one place, can cause a major change in another. A butterfly flapping its wings can cause rain in Central Park, New York. The trouble is, it is not repeatable. The next time the butterfly flaps its wings, a host of other things will be different, which will also influence the weather. That is why weather forecasts are so unreliable."

— [Stephen Hawking](#)

4 people liked it

[like](#)

"The people who actually make the advances in theoretical physics don't think in these categories that the philosophers and the historians of science subsequently invent for them"

— [Stephen Hawking](#), *Black Holes and Baby Universes*

tags: physics, science

3 people liked it

[like](#)

"... if we do discover a complete theory, it should in time be understandable in broad principle by everyone, not just a few scientists. Then we shall all, philosophers, scientists, and just ordinary people, be able to take part in the discussion of the question of why it is that we and the universe exist. If we find the answer to that, it would be the ultimate triumph of human reason - for then we would know the mind of God."

— [Stephen Hawking](#), *A Brief History of Time*

3 people liked it

[like](#)

— [Stephen Hawking](#)

3 people liked it

[like](#)

"Physics as we know it will be over in six months - Max Born"

— [Stephen Hawking](#), *A Brief History of Time*

3 people liked it

[like](#)

"We find ourselves in a bewildering world. We want to make sense of what we see around us and to ask: What is the nature of the universe? What is our place in it and where did it and we come from? Why is it the way it is?"

— [Stephen Hawking](#), *A Brief History of Time*

3 people liked it

[like](#)

"Today will still yearn to know why we are here and where we came from. Humanity's deepest desire for knowledge is justification enough for our continuing quest. And our goal is nothing less than a complete description of the universe we live in."

— [Stephen Hawking](#), *A Brief History of Time*

tags: knowledge, physics, science, space, universe

2 people liked it

[like](#)

"The increase of disorder or entropy is what distinguishes the past from the future, giving a direction to time."

— Stephen Hawking, *A Brief History of Time*

2 people liked it

like

"Cuando miramos al universo, lo vemos tal como fue en el pasado"

— Stephen Hawking, *A Brief History of Time*

tags: universo

2 people liked it

like

"... it seems Einstein was doubly wrong when he said, God does not play dice. Not only does God definitely play dice, but He sometimes confuses us by throwing them where they can't be seen."

— Stephen Hawking

2 people liked it

like

"Although quantum mechanics has been around for nearly 70 years, it is still not generally understood or appreciated, even by those that use it to do calculations."

— Stephen Hawking

2 people liked it

like

"Both observer and observed are parts of the world that has an objective existence, and any distinction between them has no meaningful significance. In other words, if you see a herd of zebras fighting for a spot in the parking garage, it is because there really is a herd of zebras fighting for a spot in the parking garage."

— Stephen Hawking, *The Grand Design*

1 person liked it

like

"an ellipse is an elongated circle"

— Stephen Hawking, *A Brief History of Time*

1 person liked it

like

"Man toasters are like the greatest thing. Ever... of all time."

— Stephen Hawking

1 person liked it

like

"I like physics, but I love cartoons."

— Stephen Hawking

tags: cartoons, love, physics

1 person liked it

like

"A well-known scientist (some say it was Bertrand Russell) once gave a public lecture on astronomy. He described how the earth orbits around the sun and how the sun, in turn, orbits around the center of a vast collection of stars called our galaxy. At the end of the lecture, a little old lady at the back of the room got up and said: "What you have told us is rubbish. The world is really a flat plate supported on the back of a giant tortoise." The scientist gave a superior smile before replying, "What is the tortoise standing on?" "You're very clever, young man, very clever," said the old lady. "But it's turtles all the way down!"

— Stephen Hawking, *A Brief History of Time*

tags: turtles

1 person liked it

like

"I don't think the human race will survive the next thousand years, unless we spread into space. There are too many accidents that can befall life on a single planet. But I'm an optimist. We will reach out to the stars."

— Stephen Hawking

1 person liked it

like

"why are we here?

where do we come from?

traditionally, these are questions

for philosophy, but philosophy is dead"

— Stephen Hawking

tags: philosophy

1 person liked it

like

"Yet if there really were a complete unified theory, it would also presumably determine our actions—so the theory itself would determine the outcome of our search for it! And why should it determine that we come to the right conclusions from the evidence? Might it not equally well determine that we draw the wrong conclusion? Or no conclusion at all?

Stephen Hawking"

— Stephen Hawking, *A Briefer History of Time*

Stephen Hawking Quotes

Page: 3

Among physicists, I'm respected I hope.

Stephen Hawking

Hope, Among, Respected

God not only plays dice, but also sometimes throws them where they cannot be seen.

Stephen Hawking

God, Cannot, Sometimes

I used to think information was destroyed in black hole. This was my biggest blunder, or at least my biggest blunder in science.

Stephen Hawking

Black, Used, Science

I want to know why the universe exists, why there is something greater than nothing.

Stephen Hawking

Nothing, Why, Universe

If aliens visit us, the outcome would be much as when Columbus landed in America, which didn't turn out well for the Native Americans.

Stephen Hawking

America, Turn, Visit

In Britain, like most of the developed world, stem-cell research is regarded as a great opportunity. America will be left behind if it doesn't change policy.

Stephen Hawking

Change, America, Research

Maybe I don't have the most common kind of motor neuron disease, which usually kills in two or three years.

Stephen Hawking

Kind, Two, Three

My work and my family are very important to me.

Stephen Hawking

Family, Important

Observations indicate that the universe is expanding at an ever increasing rate. It will expand forever, getting emptier and darker.

Stephen Hawking

Ever, Universe, Getting

Philosophers have not kept up with modern developments in science. Particularly physics.

Stephen Hawking

Science, Physics, Modern

Science predicts that many different kinds of universe will be spontaneously created out of nothing. It is a matter of chance which we are in.

Stephen Hawking

Nothing, Different, Matter

The media need superheroes in science just as in every sphere of life, but there is really a continuous range of abilities with no clear dividing line.

Stephen Hawking

Need, Science, Line

The radiation left over from the Big Bang is the same as that in your microwave oven but very much less powerful. It would heat your pizza only to minus 271.3°C - not much good for defrosting the pizza, let alone cooking it.

Stephen Hawking

Alone, Powerful, Over

The universe is governed by science. But science tells us that we can't solve the equations, directly in the abstract.

Stephen Hawking

Universe, Science, Solve

There are too many accidents that can befall life on a single planet.

Stephen Hawking

Single, Too, Planet

Using e-mail, I can communicate with scientists all over the world.

Stephen Hawking

Over, Using, Scientists

You can't regulate every lab in the world.

Stephen Hawking

Stephen Hawking > Quotes

Stephen Hawking quotes (showing 1-50 of 92)

"The greatest enemy of knowledge is not ignorance, it is the illusion of knowledge."

— [Stephen Hawking](#)

tags: [ignorance](#), [knowledge](#)

684 people liked it

[like](#)

"Even if there is only one possible unified theory, it is just a set of rules and equations. What is it that breathes fire into the equations and makes a universe for them to describe? The usual approach of science of constructing a mathematical model cannot answer the questions of why there should be a universe for the model to describe. Why does the universe go to all the bother of existing?"

— [Stephen Hawking](#), *A Brief History of Time*

tags: [philosophy](#), [science](#), [search-for-meaning](#)

373 people liked it

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"We are just an advanced breed of monkeys on a minor planet of a very average star. But we can understand the Universe. That makes us something very special."

— [Stephen Hawking](#)

tags: [inspirational](#), [science](#)

357 people liked it

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"I have noticed even people who claim everything is predestined, and that we can do nothing to change it, look before they cross the road."

— [Stephen Hawking](#)

286 people liked it

[like](#)

"One, remember to look up at the stars and not down at your feet. Two, never give up work. Work gives you meaning and purpose and life is empty without it. Three, if you are lucky enough to find love, remember it is there and don't throw it away."

— [Stephen Hawking](#)

tags: [philosophy](#), [science](#)

224 people liked it

[like](#)

"Quiet people have the loudest minds."

— [Stephen Hawking](#)

214 people liked it

[like](#)

"Intelligence is the ability to adapt to change. "

— [Stephen Hawking](#)

184 people liked it

[like](#)

"[In the Universe it may be that] Primitive life is very common and intelligent life is fairly rare. Some would say it has yet to occur on Earth."

— [Stephen Hawking](#)

tags: [humor](#), [science](#), [stupidity](#)

147 people liked it

[like](#)

"It surprises me how disinterested we are today about things like physics, space, the universe and philosophy of our existence, our purpose, our final destination. Its a crazy world out there. Be curious."

— [Stephen Hawking](#)

128 people liked it

[like](#)

"I think computer viruses should count as life. I think it says something about human nature that the only form of life we have created so far is purely destructive. We've created life in our own image."

— [Stephen Hawking](#)

tags: [computer-viruses](#), [computers](#), [creation](#)

120 people liked it

[like](#)

"Life would be tragic if it weren't funny."

— [Stephen Hawking](#)

tags: humour, science, wisdom

118 people liked it

[like](#)

"My goal is simple. It is a complete understanding of the universe, why it is as it is and why it exists at all."

— [Stephen Hawking](#)

tags: goal-universe-understanding

88 people liked it

[like](#)

"The victim should have the right to end his life, if he wants. But I think it would be a great mistake. However bad life may seem, there is always something you can do, and succeed at. While there's life, there is hope."

— [Stephen Hawking](#)

87 people liked it

[like](#)

"My expectations were reduced to zero when I was 21. Everything since then has been a bonus."

— [Stephen Hawking](#)

86 people liked it

[like](#)

"There is a fundamental difference between religion, which is based on authority, and science, which is based on observation and reason. Science will win because it works."

— [Stephen Hawking](#)

68 people liked it

[like](#)

"It is all right to make mistakes; nothing is perfect because with perfection, we would not exist."

— [Stephen Hawking](#)

68 people liked it

[like](#)

"The downside of my celebrity is that I cannot go anywhere in the world without being recognized. It is not enough for me to wear dark sunglasses and a wig. The wheelchair gives me away."

— [Stephen Hawking](#)

tags: humor, science

67 people liked it

[like](#)

"Not only does God play dice but... he sometimes throws them where they cannot be seen."

— [Stephen Hawking](#)

tags: quantum-physics

59 people liked it

[like](#)

"To confine our attention to terrestrial matters would be to limit the human spirit."

— [Stephen Hawking](#)

55 people liked it

[like](#)

"I believe the simplest explanation is, there is no God. No one created the universe and no one directs our fate. This leads me to a profound realization that there probably is no heaven and no afterlife either. We have this one life to appreciate the grand design of the universe and for that, I am extremely grateful."

— [Stephen Hawking](#)

tags: atheism, inspirational, science

54 people liked it

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"So long as the universe had a beginning, we could suppose it had a creator. But if the universe is really completely self-contained, having no boundary or edge, it would have neither beginning nor end: it would simply be. What place, then, for a creator?"

— [Stephen Hawking](#)

tags: religion, science

51 people liked it

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"What I have done is to show that it is possible for the way the universe began to be determined by the laws of science. In that case, it would not be necessary to appeal to God to decide how the universe began. This doesn't prove that there is no God, only that God is not necessary."

— [Stephen Hawking](#)

tags: philosophy, physics

49 people liked it

like

"You cannot understand the glories of the universe without believing there is some Supreme Power behind it."

— [Stephen Hawking](#)

48 people liked it

like

"I don't think the human race will survive the next thousand years, unless we spread into space."

— [Stephen Hawking](#)

47 people liked it

like

"Remember to look up at the stars and not down at your feet. Never give up work. Work gives you meaning and purpose and life is empty without it. If you are lucky enough to find love, remember it is there and don't throw it away."

— [Stephen Hawking](#)

45 people liked it

like

"Although I cannot move and I have to speak through a computer, in my mind I am free."

— [Stephen Hawking](#), *Sigan Ŭn Hangsang Mirae Ro Hŭrŭnŭn-ga: Hokŏing Paksa Ŭi Chaemi Inmuŋ Chŏoesin Ujuron*

40 people liked it

like

"I have noticed that even those who assert that everything is predestined and that we can change nothing about it still look both ways before they cross the street"

— [Stephen Hawking](#)

tags: chance, death, destiny, life

39 people liked it

like

"So Einstein was wrong when he said, "God does not play dice." Consideration of black holes suggests, not only that God does play dice, but that he sometimes confuses us by throwing them where they can't be seen."

— [Stephen Hawking](#)

tags: einstein, quantum-physics, refutation

38 people liked it

like

"thus, in a sense, we are all doomed. even if we stay away from black holes"

— [Stephen Hawking](#)

36 people liked it

like

"i do not fear death but i am in no hurry to die"

— [Stephen Hawking](#)

35 people liked it

like

"One of the basic rules of the universe is that nothing is perfect. Perfection simply doesn't exist.....Without imperfection, neither you nor I would exist"

— [Stephen Hawking](#)

32 people liked it

like

"People who boast about their IQ are losers"

— [Stephen Hawking](#)

31 people liked it

like

"I regard the afterlife to be a fairy story for people that are afraid of the dark"

— [Stephen Hawking](#)

tags: god, life, science, stephen-hawking

31 people liked it

like

"It is not clear that intelligence has any long-term survival value."

— [Stephen Hawking](#)

tags: science

31 people liked it

like

"We only have to look at ourselves to see how intelligent life might develop into something we wouldn't want to meet,"

— [Stephen Hawking](#)

tags: human, life

30 people liked it

[like](#)

"Government works best under the glare of public scrutiny. Absent such scrutiny, abuses occur."

— [Stephen Hawking](#)

27 people liked it

[like](#)

"A well-known scientist (some say it was Bertrand Russell) once gave a public lecture on astronomy. He described how the earth orbits around the sun and how the sun, in turn, orbits around the center of a vast collection of stars called our galaxy. At the end of the lecture, a little old lady at the back of the room got up and said: "What you have told us is rubbish. The world is really a flat plate supported on the back of a giant tortoise." The scientist gave a superior smile before replying, "What is the tortoise standing on?" "You're very clever, young man, very clever," said the old lady. "But it turtles all the way down!"

— [Stephen Hawking, *A Brief History of Time*](#)

27 people liked it

[like](#)

"One is always a long way from solving a problem until one actually has the answer."

— [Stephen Hawking](#)

26 people liked it

[like](#)

"Time and space are finite in extent, but they don't have any boundary or edge. They would be like the surface of the earth, but with two more dimensions."

— [Stephen Hawking, *Black Holes and Baby Universes*](#)

tags: physics

23 people liked it

[like](#)

"It matters if you just don't give up."

— [Stephen Hawking](#)

20 people liked it

[like](#)

"God abhors a naked singularity."

— [Stephen Hawking, *A Brief History of Time*](#)

tags: physics

20 people liked it

[like](#)

"I don't know what my IQ is. People who gloat about their IQ's are losers"

— [Stephen Hawking](#)

19 people liked it

[like](#)

"The idea of 10 dimensions might sound exciting, but they would cause real problems if you forget where you parked your car."

— [Stephen Hawking, *The Grand Design*](#)

17 people liked it

[like](#)

"Remember to look up at the stars and not down at your feet. Try to make sense of what you see and wonder about what makes the universe exist. Be curious. And however difficult life may seem, there is always something you can do and succeed at.

It matters that you don't just give up."

— [Stephen Hawking](#)

tags: motivational

16 people liked it

[like](#)

"One could say: "The boundary condition of the universe is that it has no boundary." The universe would be completely self-contained and not affected by anything outside itself. It would neither be created nor destroyed. It would just BE."

— [Stephen Hawking](#)

16 people liked it

[like](#)

"Ever since the dawn of civilization, people have not been content to see events as unconnected and inexplicable. They have craved an understanding of the underlying order in the world. Today we still yearn to know why we are here and where we came from. Humanity's deepest desire for knowledge is justification enough for our continuing quest. And our goal is nothing less than a complete description of the universe we live in."

— Stephen Hawking, *A Brief History of Time*

tags: science

16 people liked it

like

"What you have told us is rubbish. The world is really a flat plate supported on the back of a giant tortoise."

— Stephen Hawking, *A Briefer History of Time*

tags: post-certainty

13 people liked it

like

"We got through all of Genesis and part of Exodus before I left. One of the main things I was taught from this was: not to begin a sentence with And. I pointed out that most sentences in the Bible began with And, but I was told that English had changed since the time of King James. In that case, I argued, why make us read the Bible? But it was in vain. Robert Graves was very keen on the symbolism and mysticism in the Bible at that time."

— Stephen Hawking, *Black Holes and Baby Universes*

tags: grammar, language

13 people liked it

like

"The whole history of science has been the gradual realization that events do not happen in an arbitrary manner, but that they reflect a certain underlying order, which may or may not be divinely inspired."

— Stephen Hawking

13 people liked it

like

"Many people do not like the idea that time has a beginning, probably because it smacks of divine intervention.

(The Catholic Church, on the other hand, seized on the big bang model and in 1951 officially pronounced it to be in accordance with the Bible."

— Stephen Hawking

Stephen Hawking Quotes

I have noticed even people who claim everything is predestined, and that we can do nothing to change it, look before they cross the road.

Stephen Hawking

Change, Nothing, Everything

Intelligence is the ability to adapt to change.

Stephen Hawking

Intelligence, Ability, Adapt

I think computer viruses should count as life. I think it says something about human nature that the only form of life we have created so far is purely destructive. We've created life in our own image.

Stephen Hawking

Computers, Human, Far

We are just an advanced breed of monkeys on a minor planet of a very average star. But we can understand the Universe. That makes us something very special.

Stephen Hawking

Understand, Special, Makes

God not only plays dice, He also sometimes throws the dice where they cannot be seen.

Stephen Hawking

God, Cannot, Sometimes

People won't have time for you if you are always angry or complaining.

Stephen Hawking

Angry, Won

My goal is simple. It is a complete understanding of the universe, why it is as it is and why it exists at all.

Stephen Hawking

Simple, Why, Goal

The whole history of science has been the gradual realization that events do not happen in an arbitrary manner, but that they reflect a certain underlying order, which may or may not be divinely inspired.

Stephen Hawking

May, Happen, History

Even if there is only one possible unified theory, it is just a set of rules and equations. What is it that breathes fire into the equations and makes a universe for them to describe?

Stephen Hawking

Fire, Makes, Universe

We are in danger of destroying ourselves by our greed and stupidity.

We cannot remain looking inwards at ourselves on a small and increasingly polluted and overcrowded planet.

Stephen Hawking

Stupidity, Greed, Small

If we do discover a complete theory, it should be in time understandable in broad principle by everyone. Then we shall all, philosophers, scientists, and just ordinary people be able to take part in the discussion of why we and the universe exist.

Stephen Hawking

Why, Everyone, Able

It is no good getting furious if you get stuck. What I do is keep thinking about the problem but work on something else. Sometimes it is years before I see the way forward. In the case of information loss and black holes, it was 29 years.

Stephen Hawking

Forward, Black, Thinking

Not only does God play dice, but... he sometimes throws them where they cannot be seen.

Stephen Hawking

God, Play, Cannot

Life would be tragic if it weren't funny.

Stephen Hawking

Funny, Weren, Tragic

To confine our attention to terrestrial matters would be to limit the human spirit.

Stephen Hawking

Human, Attention, Spirit

We only have to look at ourselves to see how intelligent life might develop into something we wouldn't want to meet.

Stephen Hawking

Look, Might, Ourselves

One cannot really argue with a mathematical theorem.

Stephen Hawking

Cannot, Argue, Theorem

It is not clear that intelligence has any long-term survival value.

Stephen Hawking

Value, Survival, Clear

Women. They are a complete mystery.

Stephen Hawking

Women, Mystery, Complete

Although September 11 was horrible, it didn't threaten the survival of the human race, like nuclear weapons do.

Stephen Hawking

Human, Survival, Race

I'm not afraid of death, but I'm in no hurry to die. I have so much I want to do first.

Stephen Hawking

Die, Afraid, Death

Most sets of values would give rise to universes that, although they might be very beautiful, would contain no one able to wonder at that beauty.

Stephen Hawking

Beautiful, Beauty, Give

Nothing cannot exist forever.

Stephen Hawking

Nothing, Cannot, Forever

The usual approach of science of constructing a mathematical model cannot answer the questions of why there should be a universe for the model to describe. Why does the universe go to all the bother of existing?

Stephen Hawking

Why, Cannot, Universe

There is no heaven or afterlife for broken-down computers; that is a fairy story for people afraid of the dark.

Stephen Hawking

Dark, Afraid, Story

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Biography

Nationality: English

Type: Physicist

Born: January 8, 1942

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Cara Santa Maria

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My Evening With Stephen Hawking

Posted: 05/29/2012 9:35 am Updated: 05/29/2012 9:35 am



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Saint Patrick's Day fell on a Saturday this year. It was cold and rainy, and the memories I made that night will live with me forever. I've struggled for months with the decision to keep them as mine alone, but ultimately I had to let them out -- to write them down on paper -- so they may not decay in step with my forgetfulness.

The rain pummeled my windshield as I drove from my home in Hollywood to Pasadena for a special invite-only party thrown by [Kip Thorne](#), a theoretical physicist at Caltech. The party was held at Kip's home, in honor of Stephen Hawking's 70th birthday, which was in January. Kip and Stephen are longtime friends, having together pondered fundamental questions about Einstein's general relativity theory and black hole cosmology.

When I finally made it to the party, the first face I saw was that of a young boy. He helped me down the makeshift ramp that had been built over the steps in Kip's entryway and confidently announced that "grandpa Stephen" was in the living room. It immediately struck me that this man, one of the most influential and well-known scientists of the modern era, was also just a man -- a father and a grandfather.

I was nervous that I wouldn't know what to say, so I was relieved to find that he was eating dinner when I arrived. Now when I say he was eating dinner, what I mean is he was being fed. Sitting in his chair, draped with a large bib to catch the food that fell from his lips, I began to see [Stephen Hawking](#) in a new light. This frail, aging, helpless man wrote the first book I ever *chose* to read about physics. A popular culture icon, Stephen has starred in television shows from *The Simpsons* to *Star Trek*. He is just as relevant today as he was 30 years ago. In fact, the night I met him, he had just finished filming his guest spot on *The Big Bang Theory*, a beloved sitcom about four young physicists and

engineers living in Pasadena, presumably working at Caltech. (I tried to pry the plot point of the yet-to-be-aired episode out of his assistants, but their lips were sealed.) When he was only 21 years old, Stephen knew he was getting sick. It took years of difficult testing before he would be satisfied with a diagnosis: amyotrophic lateral sclerosis, or ALS. Also known as Lou Gehrig's Disease, ALS is a progressive dysfunction of the cells in the brain and spinal cord that control muscle function. It's one of five recognized motor neuron diseases, and its prognosis isn't good. Most people with ALS die within two or three years of diagnosis. Stephen has lived for nearly 50.

That being said, he has almost no motor control left. When I first sat beside him at the party, I told him it was an honor to meet him and asked if I could shake his hand. His caretaker knew by his eyes that he had said yes, so I took his hand in mine and gave it a delicate squeeze, being careful to set it back down in a comfortable position on his lap. We began our conversation with introductions and small talk about the weather.

I said in passing that the weather was terrible, and Stephen began composing a sentence on his portable computer. After several failed attempts and multiple deletions, his prose began to appear on the screen. He never ran it to the synthesizer, since I was sitting right beside him and could easily read his words in real time. Although I cannot remember what he said verbatim (I'm not a very good reporter, and in any event, I was invited to this party as a friend, not press), I do recall it being strikingly poetic. It was something like: *With rains, as are oft' in Cambridge...*

I sat with Stephen for more than two hours that night. Within that timeframe, he managed to construct only two sentences. His condition has deteriorated to the extent that he can only twitch his cheek muscles beneath his eye to control an ultra-sensitive electrode that connects his glasses to his communication system (see photo above). The second hour was spent composing the admission (again, not verbatim): *At home I have an address which is a decoy; I also have another for those with whom I want to communicate*. I laughed and touched Stephen on the shoulder, whispering that I hoped he was trying to tell me that he'd like to continue our conversation in the future. He never responded after that. To this day I wonder if he was being coy or flippant. Either way, I could swear I noticed a twinkle in his eyes, as if they were smiling.

When you engage in a two-hour conversation with someone who only says (writes) two sentences to you, there's a lot of space to fill and more than a few awkward pauses. At first, I found myself not knowing where to look. As he painstakingly assembled letters into words and words into sentences, I would cycle back and forth between his eyes and his screen, all the while being mindful of the necessary balance between engagement and lack of pressure. Periodically, his friends and colleagues would come to where we were sitting in front of the fire and talk *through* him as if he wasn't there. "It's so good to have Stephen back here in Pasadena." "Yes, he's looking good. I'm glad to see he's doing well."

Stephen rarely does public talks anymore. When he does, he draws an impressive crowd. And most of the people sitting in those seats are unaware of the effort that goes into composing the script he will follow over the course of the evening. I don't really know the full extent to which he struggles to write. But I do know that Stephen's previous technician Sam Blackburn's claim that he can "speak" one word per minute seems astronomically high. A guest at the party told me that it took Stephen a year to write his last big public lecture, delivered at Caltech in January 2011.

People with ALS are trapped inside of their own bodies. The disease doesn't affect one's thoughts or emotions, but after it has progressed to the point that motor function is essentially nil, how can sufferers expect to communicate those innermost feelings to an outside world? I know that Stephen's mind is rife with creativity, and I found myself frustrated that I couldn't engage him in a deeper, more meaningful way. I felt helpless, scanning his eyes for the signs of life that I know were swirling deep behind them.

When I got home that evening, I cried. Not because I felt sorry for him, or because I realized what it is that I probably take for granted every day. I cried because I felt a fundamentally human urge to connect with this man -- an icon of brilliance in a world sorely lacking -- and I simply couldn't figure out how. Yet, I will hold onto the memory.