

Temple Street Children's Hospital Post-Primary Newsletter



October, 2020

Temple Street Hospital School is a values school.

The human value for this month is:

Truth

The Sub-values under Truth are:

- Honesty
- Fairness
- Wisdom
- Reflection

Activities you can do:

1. Reflect and think about what the word 'truth' means to you.
2. Then find a quotation and symbol that describes 'truth'.
3. You could design a poster on 'truth'.
4. Listen to a piece of music or a song that you like that is about 'truth'.
5. Write or tell a story about 'truth'.

Albert Einstein

You would probably recognise Albert Einstein from his photos. Yep, he was the guy with the crazy hair! But he also had some great ideas. He was more than just a scientist. He was a genius who changed our lives. He made some of science's biggest discoveries. He also developed some important theories. Some of these theories may seem complicated. But they concern everybody. Science is everywhere and affects us every day. Einstein's discoveries made things like television, DVD players, and GPS possible.

Einstein was born in Germany in 1879. When he was five years old, his dad gave him a compass. It became his favourite toy. He would stare at the needle of the compass as it moved. It seemed like magic at first.

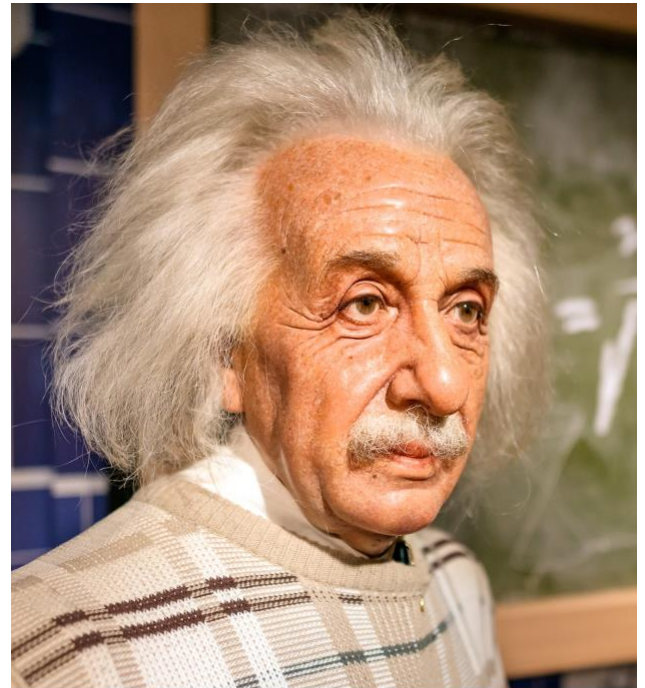
Einstein wanted to understand how the needle moved. So, he learned about magnetism. Magnetism is about the invisible force of magnets. It can make objects stick together or move away.

Einstein also learned a lot about science and electronics because of his dad. His dad owned an electronics company. It was no surprise that Einstein ended up loving Maths and Science. He started performing experiments at a very young age.

Einstein performed extremely well in school. He quickly advanced to higher level Maths and Science, and his teachers were impressed by his grasp of college-level Physics by the time he was eleven. When he was young, he met a Polish medical student named Max Talmud. Talmud became his tutor. He showed Einstein a children's textbook about science. Einstein became curious about light and other things.

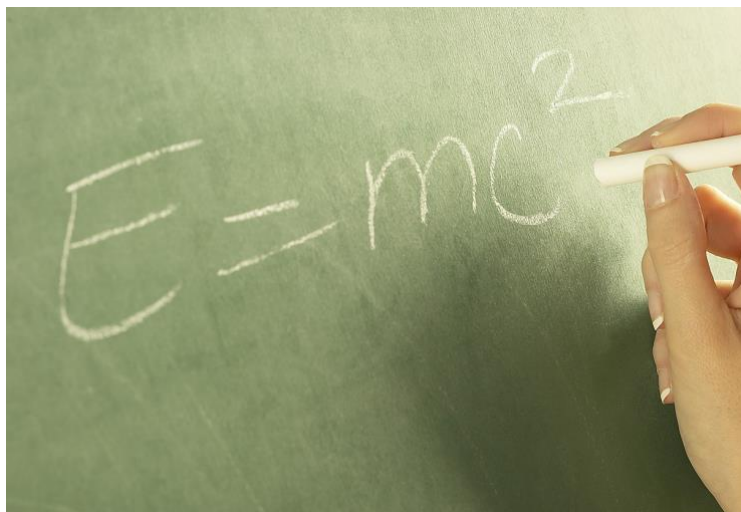
Einstein later attended school in Switzerland. He made many friendships. He also met his future wife, Mileva Maric. She was a Physics student from Serbia. Einstein received his doctorate in 1905. That same year, he published many important scientific papers.

After that, Einstein became a professor in Germany. But times were tough back then. Hitler and his Nazi party started a war against Jewish people. Einstein was Jewish. So he decided to leave and go to the United States. That was in 1933. And it's a good thing he did. The world needed him to be free and pursue his passions.



“I am enough of an artist to draw freely upon my imagination. Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world.”
- Albert Einstein

Einstein was not an inventor like Thomas Edison or Alexander Graham Bell. But his theories and discoveries changed the way we look at things. Some example are time, space, matter, energy, and gravity.



Einstein is best known for his Theory of Relativity. You probably heard of the equation $E=mc^2$. E stands for energy, m stands for mass, and c stands for speed of light. But what does this all mean? Yes, it is as complicated as it sounds! Here's the most basic way to explain it. The theory is a scientific explanation about how space relates to time. This was very important. It changed the way scientists looked at the universe. This theory also brought on inventions like the nuclear bomb and nuclear energy.

Einstein made many other discoveries. For example, he figured out that light is made up of many little particles called 'photons'. He called this the quantum theory of light. At the time, some other scientists did not agree with this theory. But later, it was proven. This was an important discovery. It led to many inventions such as television.

Here's one more example of an important discovery Einstein made. Along with scientist Satyendra Bose, he discovered a new state of matter. Regular states of matter are gas, liquid, and solid. Einstein and Bose found another one. They named it the Bose-Einstein Condensate. Today, it's used to make things like laser beams.

Einstein's work was and is valuable to the world. This is one of the reasons he eventually won the Nobel Prize in Physics. The Nobel Prize is a very famous award given to someone who has done outstanding work in different subjects like Science or Medicine. Einstein died in 1955.

Questions

1. Based on the information in the article, which statement is true about Albert Einstein's younger years?

- a) Einstein's teachers were disappointed in his lack of interest in Maths and Science.
- b) Einstein was tutored by a Polish medical student, Max Talmud.
- c) Einstein wanted to be a physics professor like his father.
- d) Einstein's first time traveling abroad was when he fled Germany for the U.S. in 1933.

2. Even though Albert Einstein wasn't an inventor, his discoveries paved the way for many inventions. Name six things that were invented because of Einstein's work in Maths and Science.

1. _____ 2. _____ 3. _____

4. _____ 5. _____ 6. _____

3. Einstein is very famous for his Theory of Relativity. His equation, $E=mc^2$, is a scientific explanation for how space relates to time. What does each part of the equation stand for?

E - _____ **m** - _____ **c** - _____

4. In addition to Einstein's Theory of Relativity, describe two other important discoveries Einstein made during his life.

5. What honour was bestowed on Albert Einstein later on in his career?

6. The following terms are vocabulary words from the article. Match the vocabulary word with its correct definition by writing the corresponding letter on the line.

1. _____ genius

2. _____ century

3. _____ theory

4. _____ gravity

5. _____ doctorate

6. _____ complicated

7. _____ universe

8. _____ compass

9. _____ curious

10. _____ outstanding

a. a force that pulls a body toward the centre of the earth

b. an instrument that displays the direction of magnetic north

c. complex; difficult to understand

d. eager to learn about or know something

e. everything in existence; the cosmos

f. mastermind; brilliant person

g. excellent; exceptional

h. a set of ideas that is intended to explain something

i. the highest degree that is awarded by a college, university, or other institution of learning

j. a period of one hundred years

Impress your friends with these incredible facts about the world around us

1. Babies have around 100 more bones than adults



2. The Eiffel Tower can be 15 cm taller during the summer



3. 20% of Earth's oxygen is produced by the Amazon rainforest



4. A teaspoonful of neutron star would weigh 6 billion tons

5. Hawaii moves 7.5cm closer to Alaska every year



6. Chalk is made from trillions of microscopic plankton fossils

7. In 2.3 billion years it will be too hot for life to exist on Earth



8. Polar bears are nearly undetectable by infrared cameras

9. It takes 8 minutes, 19 seconds for light to travel from the Sun to the Earth



10. Stomach acid is strong enough to dissolve stainless steel

11. Venus is the only planet to spin clockwise

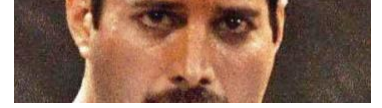


Guess the Famous Face

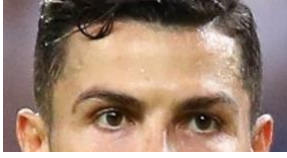
A



B



C



D



E



F



G



H



Answers: A = Eminem; B = Freddie Mercury; C = Cristiano Ronaldo; D = Ariana Grande; E = Sonic the Hedgehog; F = Michael D. Higgins; G = Justin Bieber; H = Ed Sheeran

Evaluate Expressions

Evaluate the following expressions for $x = 6$.

1. $7x$

2. $\frac{x}{3}$

3. $29 - x$

4. $\frac{36}{x}$

5. $9x$

6. $x + 41$

7. $3x + x$

8. $2x - 2$

Evaluate the following expressions for $b = 2$ and $c = 7$.

9. $5 + b + c$

10. $16 + b - c$

11. $c - b + 1$

12. $9b - c$

13. $7c - b$

14. $4c + b$

15. $12b + c$

16. $22 + b - c$

Evaluate the following expressions for $y = 8$ and $d = 4$.

17. $\frac{6y}{d}$

18. $\frac{20}{d} + y$

19. $\frac{yd}{2}$

20. $\frac{y}{d} + 6$

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