

THE FACT CORNER



It snowed in the **Sahara desert** for 30 minutes on the 18th February 1979



The tree where **Isaac Newton** discovered gravity is still alive and well, outside of his childhood home



The **loudest noise** ever recorded was the eruption of the volcano Krakatoa, Indonesia in 1883. he eruption was heard over 3,000 miles away



Kunsthofpassage Funnel Wall, the wall that makes music when it rains. Located in Dresden Neustadt, Germany

BRAIN TEASERS

- Q. Peter is 54 years old, and his father Joe is 80. How many years ago was Joe three times the age of his son Peter?
- Q. There are several books on a bookshelf. If one book is the 4th from the left and 6th from the right, how many books are on the shelf?
- Q. What do you get when you divide 30 by 1/2 and add 10?
- Q. I am a three digit number. My tens digit is five more than my ones digit. My hundreds digit is eight less than my tens digit. What number am I?

- Q. I asked a girl how old she was. She said, "In 2 years I will be twice as old as I was 5 years ago." How old is she?
- Q. If it were two hours later, it would be half as long until midnight as it would be if it were an hour later. What time is it now?
- Q. There are two ducks in front of two other ducks. There are two ducks behind two other ducks. There are two ducks beside two other ducks. How many ducks are there?

6. 9pm.
7. Four ducks (in a square).

3. 70.

4. 194.

5. 12.

SOLUTION:
1. 41 years ago.
2. 9 books.

English Proverbs and Meanings

* **Blood is thicker than water.**
Family relationships are stronger than relationship with other people.

* **Don't bark if you can't bite.**
Don't complain if you can't enforce your point of view.

* **Every man for himself.**
You must think of your own interests before the interests of others.

* **Fine words butter no parsnips.**
No amount of talking can replace action.

* **Half a loaf is better than none.**

You should be grateful for something, even if it's not as much as you wanted.

* **He who hesitates is lost.**
If you delay your decision too long, you may miss a good opportunity.

* **If you chase two rabbits, you will not catch either one.**
If you try to do two things at the same time, youwon't succeed in doing either of them.

* **Kindness begets kindness.**
If you are kind to people, they will be kind to you.

Cereal balls



Ingredients:
1 cup muesli
4 tbsp wheatgerm
1 tbsp honey
1 tbsp peanut butter
1/4 cup raisins
1-2 tbsp milk
1/2 cup desiccated coconut

Method
In a food processor or blender, place the muesli and raisins and process for 30 seconds. Add the honey and peanut butter and process for a further 30 seconds. Test by rolling into a ball, if it doesn't stay together slowly add a tablespoon or two of milk until you are able to roll it into a ball. Roll in dessicated coconut. Keep in an airtight container.

JUNIOR CHEF

Chocolate Appo



Ingredients:
3/4 Cup rice
3 tbsp coconut, grated
1 tsp baking powder
1 tsp vanilla extract
1/2 tsp cinnamon powder
1/4 cup brown sugar
1/4 cup unsweetened cocoa powder

A pinch of salt
3 tbsp chocolate chips
2-3 tbsp butter
Method
Wash and soak the rice in water for 30 minutes to 1 hour. Drain the water of the rice completely and grind it. Keep the grated coconut ready and add water to form a medium thick batter. Make sure the consistency of the batter is similar to any dosa / pancake batter. Transfer this to a bowl and add vanilla extract, cinnamon powder, sugar, cocoa powder, salt and mix it well. Keep this batter aside for 20 to 30 minutes. Before using it, add baking powder to the batter and mix well. Heat appam pan and add little butter / ghee / oil into all the moulds. Pour a teaspoon of appo batter in each mold, add 3 to 4 chocolate chips and top it with another teaspoon of batter. Cover the pan with a lid to allow it to cook on medium flame for 2 minutes. When the edges are cooked, flip the appos, add some butter and cook on the other side for another 2 minutes. Repeat the process for remaining batter. Chocolate Appo is ready to serve.

Narinder Singh Kapany — The Indian Physicist who Bent Light



Very few people have the luck to live long enough to see how their work revolutionises the world. The Indian physicist Narinder Singh Kapany is one of those fortunate people. In 1953, he designed and manufactured a glass wire capable of transporting light, which he later coined fibre optics, an invention that has transformed all our lives. Without it, the Internet and modern telecom munications would not be possible, nor the most advanced biomedical instrumen tation, nor the efficient use of solar energy. With fibre optics, this genius of physics-in addition to being an entrepreneur and inventor-achieved what his teachers had told him was impossible: to bend light. Narinder Kapany was born on 31 October 1926 in Moga, Punjab (north India) to a wealthy Sikh family. He studied physics at the University of Agra while working in a factory for the design and manufacture of optical instruments, where he began to be interested in the technological applications of the theories he studied. After graduating in 1952, he moved to London to study for a doctorate at the Imperial College in London with the prestigious British physicist Harold Hopkins, a researcher in the field of optics. Kapany sought to achieve a system that would allow the use of light as a means of transmitting information, picking up the baton from earlier celebrated scientists. One of these was the Frenchman Claude Chappe, who in the 18th century developed a kind of optical telegraph, considered the first attempt to use light as a vehicle for the exchange of information. His idea was to position towers facing each other but separated by dozens of kilometres and to use mirrors to reflect messages encoded in the form of light. **A beam of light through glass wires** Almost a century before, the Irishman John Tyndall discovered that light could travel within a jet of water. Starting from these earlier ideas, Kapany undertook the task of developing a material through which light could travel, adapting itself to its shape and curvature. In 1953, while working on his thesis, he achieved his goal in a nascent form. In 1954, he published his breakthrough in the journal Nature, where he explained how he had directed a beam of light through a set of 75-centimetre-long glass wires while hardly losing any signal in the transmission. However, those first fibres had a problem: the light dissipated and could not cover distances greater than nine metres. But even so, Kapany had opened the door for many other researchers to work in that field and perfect his invention, which he later dubbed "fibre optics" in an article in Scientific American.

Optical fibre is one of the most used materials in telecommunications because of its lightness, flexibility and resistance. An optical fibre is a very long and flexible glass filament with a thickness that is only twice that of a human hair. Encoded laser light signals can travel along this very fine wire, which upon reaching their destination are decoded, thereby recon structing a message. In general, these fibres are gathered into wider bundles sur rounded by a plastic sheath. Nowadays, it is one of the most used materials in telecommunications because of its lightness, flexibility and resistance and because of the economics of the raw material from which it is produced: sand. **A revolution in telecommunications** Kapany had laid the foundations for a veritable revolution in the world of telecom munications. After obtaining his Doctorate in 1955, he continued his career in the United States, where he has lived ever since. The explosion of research related to fibre optics led Kapany to publish in 1967 the book Optical Fibres. Principles and applications, a world reference in the field of optics. The applications of his inven tion increased exponentially and in 1977 the first telephone connection by optical fibre was achieved. With the contributions of other scientists, Kapany's glass filaments evolved to be able to transport a huge flow of data at great speeds and over enormous distances: today, 95per cent of Internet traffic travels along thick submarine cables, composed of an infinity of optical fibres. But fibre optics has also transformed other disciplines. In medicine it has allowed the development of laryngoscopes, bronchoscopes and laparoscopes with which to explore the interior of the human body. It is also used in sensors to measure voltage, temperature or pressure, and one of its latest and varied applications makes it possible to capture solar energy with high efficiency. Narinder Kapany was part of the National Inventors Council in United States, a Department of Commerce Advisory Board, consisted of prominent scientists and engineers. Kapany, considered the father of fibre optics, devoted much of his career to teach ing at the University of California and at Stanford University. The author of numerous patents and scientific articles, he has founded several companies focused on the technological transfer of this knowledge. True to his origins, he has been a leading promoter in the US of Sikhism, a monotheistic religion whose male practition-ers are easily recognised by alwayscov ering their hair with a turban, which they never cut. In 1967, Kapany created the Sikh Foundation and also treasures an important personal collection of Sikh art. Fortune magazine recognised Kapany in 1999 as one of seven anonymous heroes in its Twentieth Century Businessmen special.