



Spotlight 8

Reading Task 8301

Read the texts. Match the sciences to the inventions. One science is extra.

1. PHYSICS
2. BIOLOGY
3. SPACE TECHNOLOGY
4. CHEMISTRY
5. MATHS
6. MEDICINE

- A.** Pasteur once said, "Chance favours the prepared mind." That's the genius behind all the accidental inventions - the scientists were prepared. In 1856 William Perkin, an English scientist (1838-1907), was trying to come up with artificial quinine (хинин). Instead of a malaria treatment, his experiments produced a thick dark mess. But the more he looked at it, the more Perkin saw a beautiful colour in his mess. He had made the first synthetic dye. His dye was far better than any dyes that came from nature; the colour was brighter and didn't fade or wash out. His discovery also made his science attractive for a whole generation of curious-minded people. But the story is not over yet. One of the people inspired by Perkin's work was the German bacteriologist Paul Ehrlich, who used Perkin's dyes in immunology and chemotherapy.
- B.** Jonas Salk (1914-1995) was an American research physician who formulated a vaccine against the devastating disease polio. Poliomyelitis, also called infantile paralysis, had crippled thousands of children during an epidemic that hit the world during the 1940's and 1950's. It is estimated that one of every 5,000 people (mostly children) fell victim to polio. Some victims were totally paralysed and needed to live in "iron lungs" (a large apparatus that helped the patient breathe). Salk developed his vaccine in 1947, while working at the University of Pittsburgh Medical School. The vaccine was made from killed polio virus. In 1955, after many trials of the new vaccine, the vaccine was made public, and put an end to the polio epidemic. When Salk died, he had been working on a vaccine for the AIDS virus.
- C.** Among the latest inventions, it is important to mention that scientists at the University of Chicago have found a way to allow magnetic sensors operate at the high temperatures, a really useful invention for ceramic engines in automobiles and aircraft of the future. To construct the sensors, the scientists required the material, named indium anti-monades, highly appreciated for its purity. The operation of the majority of magnetic sensors is based on detecting how a magnetic field changes an electron's path. Commonly used sensors are not able to operate at high temperatures, reaching hundreds of degrees. The indium antimonide magnetosensors are developed to function at such temperatures without any degradation.
- D.** Luther Burbank, a famous American (1849 - 1926), developed more than 800 varieties of plants over his 55-year career. Burbank's varied creations included fruits, flowers, grains, grasses, and vegetables. He developed a spineless cactus useful for cattle-feed. Burbank's most successful varieties include the Shasta daisy, the Fire poppy, the July Elberta peach, the Santa Rosa plum, the Flaming Gold nectarine, the Wickson plum, the Freestone peach, and the white blackberry. A natural genetic variant of the Burbank potato with russet-colored skin later became known as the Russet Burbank potato. This large, brown-skinned, white-fleshed potato has become the world's predominant potato in food processing. His over 800 varieties have been used around the world to increase the food supply.
- E.** Many products have been developed as a result of space exploration and space travel, for example thermal gloves and boots. These gloves and boots have heating elements that run on rechargeable batteries worn on the inside wrist of the gloves or embedded in the sole of the ski boot. This technology was adapted from a spacesuit design for the Apollo astronauts. Lunar gloves and boots were designed for the rigors (суровости) of exploring, and the gloves for adjusting sensitive instruments. They were constructed for thermal and abrasion protection. Silicone rubber was used to give a degree of sensitivity and "feel".

A	B	C	D	E