The Nobel Prize in Chemistry

All Year 11 students are now studying hard for their examinations and the Haber process is a topic which always seems to crop up in the IGCSE chemistry exam, but how many students know that Fritz Haber was awarded the Nobel Prize in 1918? Does anyone else know who first developed the catalyst used in the catalytic cracking of petroleum, without which we couldn't start up our cars? Well, the 1963 Nobel Prize winners, Ziegler and Natta were responsible for that question too. We all study the Periodic Table and puzzle over why the elements after uranium are not natural. We can also thank the 1951 winners, McMillan and Seaborg, for their efforts in discovering such important elements.

The foundations for the prize were laid in 1895 when Alfred Nobel wrote his last will, leaving most of his wealth to the establishment of the Nobel Prize. Each year on the anniversary of Nobel's death, Nobel Laureates are presented their prizes for their achievements in chemistry, economics, literature, medicine (or physiology), peace and physics in Stockholm, Sweden. Last year the Nobel Prize winners were given an amount of ten million Swedish coronas, which is an equivalent of 1.4 million US dollars, and their individual diploma and medal.

Alfred Bernhard Nobel (1833-1896) was descended from Olof Rudbeck, a well-known Swedish inventor in the 17th century. Nobel was fluent in several languages, and wrote poetry and drama. He was also very influenced by social and peace-related issues, and was said to hold views that were considered radical at the time. He even invented dynamite during his exploits (1867 patent).

He signed his last will in Paris, but his family opposed the establishment of the prize he named and refused to do what he had requested in his will! However, since 1901 the prize has been awarded to outstanding men and women and it's surprising to note how the research performed by Nobel Laureates still reflects the type of chemistry being performed in school laboratories. Last year's prize, for example, was awarded for work on proteins. Year 11 were testing for proteins only a month ago.

Maybe one day some of our graduates will become budding scientists and become very involved in science. The transition from school to college or university and finally into the employment market is swift, to say the least. There are limited choices along this path and those who wish to become famous scientists generally take a path via prestigious universities and then embark upon sophisticated research programs. Building upon others' innovations and then carrying out something scientifically new is the only way to establish yourself in your field. The trend seems to be that you publish your work in world-renowned journals over several decades before a Nobel Prize nomination can be considered. Other leading scientists must, in addition, commend your work and there might be applications of your endeavours which will hopefully affect the daily lives of all of us. Sounds like a tall order? Well, there are shortcuts i.e. working in a group and accepting only part of the prize. It's a bit like accepting half a gold medal at the Olympics or half a Rego diamond award. I guess you won't feel that you are such a fantastic student, or famous, right?

Science is tough for foreign students because it requires a lot of understanding of the English language firstly and then there is the body of knowledge concerning science itself. You must study a long list of topics, many seemingly unrelated, to reach IGCSE or A Level standard; which includes completely new concepts and their applications as well as the mathematics essential in calculating moles or other physical constants. However, in spite of the drawbacks, the rewards can be substantial. Maybe one day some of our graduates will turn out to be budding scientists and become very involved in the technological developments that are constantly changing the face of our world. I am sure we all look forward to hearing from Rego graduates once they are firmly established in their lifelong careers. We are most likely to find that there have been a lot of exciting surprises!

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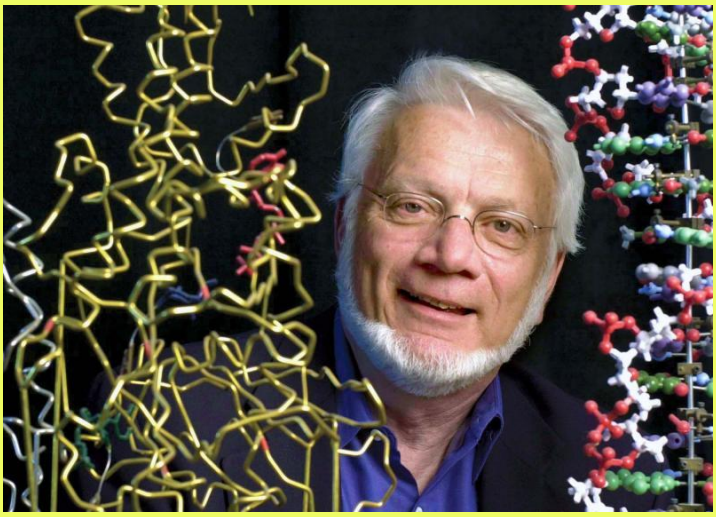
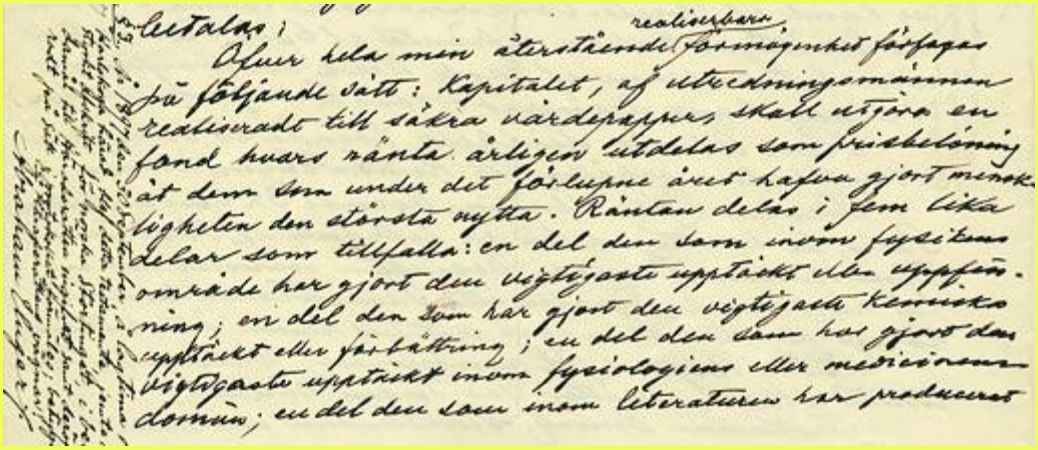
Pictures



Thomas Steitz, professor of chemistry at Yale University, is one of three winners of the 2009 Nobel Prize in Chemistry for his work describing the structure and function of the ribosome.



Uppläses i ... realiserbara ...
Öfver hela min återstående förmögenhet förfogar
jag på följande sätt: Kapitalet, af utdelningsmännen
realiserade till säkra värdepappers skall utgöra en
fond hvars ränta årligen utdelas som prisbelöning
åt dem som under det förflutne året hafva gjort mensk-
ligheten den största nytta. Räntan delas i fem lika
delar som tillfalla: en del den som inom fysikens
område har gjort den viktigaste upptäckt eller uppfin-
ning; en del den som har gjort den viktigaste kemiska
upptäckt eller förbättring; en del den som har gjort den
viktigaste upptäckt inom fysiologiens eller medicinens
domän; en del den som inom litteraturen har producerat

An excerpt from Nobel's last will.

Receiving the Nobel Prize is an honour of a lifetime.

President Obama receives the Nobel Peace Prize.

Queen Silvia of Sweden talks to Princess Lilian during the awarding ceremony of the Nobel Prizes at the City Hall, Stockholm, Sweden.

诺贝尔奖

prêmio nobel

노벨상

جائزة نوبل

Нобелевская премия

諾貝爾獎

Nobelpriset

ノーベル賞を受賞

A Nobel Gold Medal is universally renowned.

References:

http://en.wikipedia.org/wiki/Nobel_Prize
http://nobelprize.org/index.html