

Week 4 physics

IN THE LAB

Task 1. In pairs, write the transcribed name of the physicists.

[,ɑ:kɪ'mi:di:z]	['aɪzək 'nju:t(ə)n]
['arɪstət(ə)l]	[dʒeɪmz 'mækswel]
[,gæli 'leɪəʊ 'gæli:leɪ]	['maɪk(ə)l 'fərədeɪ]
[dʒəu'hæni:s 'keplə]	['ælbət 'lɪnstəɪn]
['sti:vən 'hɔ:kɪŋ]	[mæks plə:ŋk]
['nɪk(ə)ləs kə'pɜ:nɪkəs]	

Task 2. Name the authors of the **phenomena** given below.

- introduced the heliocentric system.
- designed practical mechanical devices.
- challenged Newton's physics.
- introduced electromagnetic field theory.
- proposed the special theory of relativity.
- originated quantum theory.
- measured the density of solid bodies.
- divided the theoretical sciences into physics, mathematics, and theology.
- proposed the law of falling bodies.
- investigated the motions of Saturn's rings
- challenged Aristotle's view on falling bodies.
- designed his own geometric and military compass.
- invented the first electric motor.
- proved the heliocentric model of Copernicus.

Task 3. Write the transcribed word in letters and make sentences with these words.

e.g. ['prɒpəti] – property. *Physical matter properties include colour, odour, density, melting point, boiling point and hardness.*

- [,relə'tɪvəti]
- ['den(t)sɪti]
- [,su:pəflu:'ɪdɪti]
- [æk ,selə'reɪf(ə)n]
- [vɪs'kɒsəti]
- ['frɪkfən]
- ['endʒɪn]

Task 4. Underline the correct type of the Participle in the sentences below.

- Kepler's breakthrough overturned a millennium of dogma basing/based on Ptolemy's idea of 'perfect' circular orbits for the 'perfect' heavenly bodies.
- In 1821, Michael Faraday discovered that a wire carried/carrying a current could rotate in a magnetic field.
- Thomas Edison found that light produced/producing by carbon fiber lasted a long time without burning up.
- Two centuries of experimental discoveries in electricity and magnetism expressed/expressing in Maxwell's four famous equations made it possible to unify two phenomena into one – electromagnetism successfully.
- Einstein's development of the special and general theories of relativity described/describing space and time in a new way changed physics forever.
- According to the archives, the top three physicists admired/admiring most by Einstein were all British: Newton, Faraday and Maxwell.

Task 5. In pairs, discuss:

- ✚ Have you ever heard of the “A-ha” music band?
- ✚ Does the info in a passage *have anything in common* with the work of physicists?
- ✚ Can you **highlight** words that you may relate to the work of physicists?

"A-ha" is one of the most famous groups on the planet. At the beginning of the 90s, the team had a colossal success; tickets for their concerts were sold quickly, especially abroad. The musicians were even mentioned in the Guinness Book of Records since they sold about 200 thousand tickets at the festival show "Rock in Rio II" held at a stadium in Maracana, Brazil. In 1998, the group perfectly performed at the Nobel Prize Concert with the single "Summer Moved On". The track was famous in Europe, with more than two million copies.



A-ha - Summer Moved On (Nobel Peace Prize Concert 1998)

Task 6. Study the first lines of the song to guess what the song is about.

*Summer moved on
And the way it goes
You can't tag along (follow).*

Everyone perceives the song in their way. The musicians themselves did not give accurate answers to questions about sense track, but there is an assumption that passed summer is the symbol of outdated relationships or life generally.

Task 7. Listen to the single to complete its lyric with missing words.

*Summer moved on
And the way it goes
You can't tag along.*

*Friendships move on
Until the day
You can't get along.*

*Reasons can't last
And there's just one thing.
Left to ask.*

*Honey moved out
And the way it went
Leaves no doubt.*

*Handshakes unfold
And the _____
No one knows.*

*Stay, don't just _____
And leave me another day.
A day just like today
With nobody else around.*

*Moments will pass
In the _____
I found out.*

*Moments will pass
In the morning light
I found out.*

*Seasons can't last
And there's _____
Left to ask.*

*Reasons _____
So there's just one thing.
Left to ask.*

*Stay, don't just walk away.
And leave me _____
A day just like today
_____ else around.*

*Stay, don't just walk away.
And leave me another day.
A day just like today
_____ else around.*