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ўқув-методик кенгаш 5-сонли
йиғилишининг баённомасидан
КЎЧИРМАСИ**

26.02.2020

Бухоро шаҳри

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Табиий йўналишларда чет тили кафедраси ўқитувчиси Р.Очилованинг “English for ESP (physics) ” деб номланган методик қўлланмасини нашрга тавсия этиш.

ЭШИТИЛДИ:

Г.Тоирова (кенгаш котибаси) - Табиий йўналишларда чет тили кафедраси ўқитувчиси Р.Очилованинг “English for ESP (physics) ” деб номланган методик қўлланмасини нашрга тайёрлаганлигини маълум қилди. Ушбу қўлланмага: ф.ф.ф.д.,доцент Д.Ходжаева ва БухМТИ доценти С.Наимовлар томонидан ижобий баҳо берилганлигини таъкидлади. Методик қўлланма муҳокамаси ҳақидаги Хорижий тиллар факультети (2020 йил 4 январь) ва Табиий йўналишларда чет тили кафедраси (2019 йил 17 декабрь) йиғилиш қарори билан таништирди.

Юқоридагиларни инобатга олиб ўқув-методик кенгаш

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1. Табиий йўналишларда чет тили кафедраси ўқитувчиси Р.Очилованинг “English for ESP (physics) ” деб номланган методик қўлланмасини нашрга тавсия этилсин.

Ўқув-методик кенгаш раиси
Ўқув-методик кенгаш котибаси



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ENGLISH FOR ESP (physics)

BUKHARA 2020

Mazkur **“ENGLISH FOR ESP (physics)”** nomli o'quv-metodik qo'llanma O'zbekiston Respublikasi Prezidentining 2012 yil 10 dekabrda "Chet tillarni o'rganish tizimini yanada takomillashtirish chora-tadbirlari to'g'risida"gi PQ-1875-sonli qarori, Vazirlar Mahkamasining 2017 yil 11 avgustdagi "Ta'lim muassasalarida chet tillarni o'qitishning sifatini yanada takomillashtirish chora-tadbirlari to'g'risida"gi 610 – sonli qarori ijrosini, O'zbekiston Respublikasi Bosh vazirining o'rinbosari A.Abdurahimov tomonidan (04.11.2019y. №14/1-2768) tasdiqlangan .Oliy ta'lim o'qituvchilari va talabalari uchun qo'shimcha metodik qo'llanmalar yaratish vazifasi ijrosini ta'minlash maqsadida tayyorlangan bo'lib, u oliy ta'limning asosan Fizika ta'lim yo'nalishida tahsil oluvchi talabalar va ingliz tili o'qituvchilari uchun qo'shimcha manba sifatida xizmat qiladi.

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Ushbu o'quv-metodik qo'llanma Buxoro davlat universiteti o'quv-metodlik kengashining 2020 yil 02 fevral 5- sonli bayoni bilan nashrga tavsiya qilingan.

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Text 1 What is physics?

1. Read the following words:

Phenomena, nucleus, molecular, electron, solid, liquid, plasma, theory, theoretical, atom, atomic, mechanics, mechanical, magnetism, experiment, experimental, concept, accurate, behavior, nature, natural.

2. Define the part of speech of the following words and translate them into Uzbek:

- a) Physics-physicist-physical, nature-natural, experiment-experimental, theory-theoretical;
- b) definite-definitely, accurate –accurately, primary-primarily, central-centrally, positive-positively, negative-negatively;
- c) to observe-observation, to describe-description, to relate-relation, to transform- transformation , to investigate-investigation.

3. Read the text:

What is physics?

Physics is one of the most ancient sciences about nature. The word “physics” takes its origin from the Greek word “phewsis” meaning nature.

Physics is the science studying various phenomena in nature: mechanical motion, heat, sound, electricity, magnetism and light.

Physics is one of the main sciences about nature. The development of other sciences depends in many respects on the knowledge of physical phenomena.

Physics divides itself very naturally into two great branches, experimental physics and theoretical physics .The former is the science of making observations and devising experiments which give us accurate knowledge of the actual behavior of natural phenomena .On the basis of experimental facts theoretical physics formulates laws and predicts the behavior of natural phenomena. Every physical law is based on experiments and is devised to correlate and to describe accurately

these experiments .The wider the range of experience covered by such a law, the more important it is. Physics is divided into half a dozen or more different fields- mechanics, sound, heat, electricity, magnetism and light, molecular, atomic and nuclear physics. These different fields are not distinct but merge into each other.

In all cases physics deals primarily with phenomena that can be accurately described in terms of matter and energy. Hence, the basic concepts in all physical phenomena are the concepts of matter and energy.

3. Words and expressions to be remembered:

Ancient	qadimiy
Nature	tabiat
Meaning	ma'no, mazmun
science	fan, ilm
mechanical motion	mexanik harakat
heat	issiqlik
sound	tovush
electricity	elektr quvvati
magnetism	magnetism
light	yorug'lik
depend on	bog'liq
physical phenomena	fizikhodisa
to divide	bo'lmoq, ajratmoq
naturally	tabiiy
branch	bo'lim
experimental physics	amaliy fizika
theoretical physics	nazariy fizika
observation	kuzatish, nazorat

accurate	aniq, to'g'ri
to formulate	ifodalamoq
range	soha, doira
to deal with	taqsimplamoq, shug'ullanmoq
to describe	tasvirlamoq
concept	tushuncha, g'oya

5. Answer the questions:

1. What is physics?
2. What phenomena does physics study?
3. From what language does the word "physics" take its origin?
4. Does the development of other sciences depend on the knowledge of physical phenomena?
5. What is experimental physics?
6. On what are all physical laws based?
7. What are the bases concepts in all physical phenomena?
8. What are molecules composed of?

Text 2. History of physics

Physics (from the Ancient Greek *physis* meaning "nature") is the fundamental branch of science that developed out of the study of nature and philosophy known, until around the end of the 19th century, as "natural philosophy". Today, physics is ultimately defined as the study of matter, energy and the relationships between them. Physics is, in some senses, the oldest and most basic pure science; its discoveries find applications throughout the natural sciences, since matter and energy are the basic constituents of the natural world. The other sciences are generally more limited in their scope and may be considered branches that have split off from physics to become sciences in their own right.

Physics today may be divided loosely into classical physics and modern physics. Elements of what became physics were drawn primarily from the fields of astronomy, optics, and mechanics, which were methodologically united through the study of geometry. These mathematical disciplines began in antiquity with the Babylonians and with Hellenistic writers such as Archimedes and Ptolemy. Ancient philosophy, meanwhile – including what was called "physics" – focused on explaining nature through ideas such as Aristotle's four types of "cause".

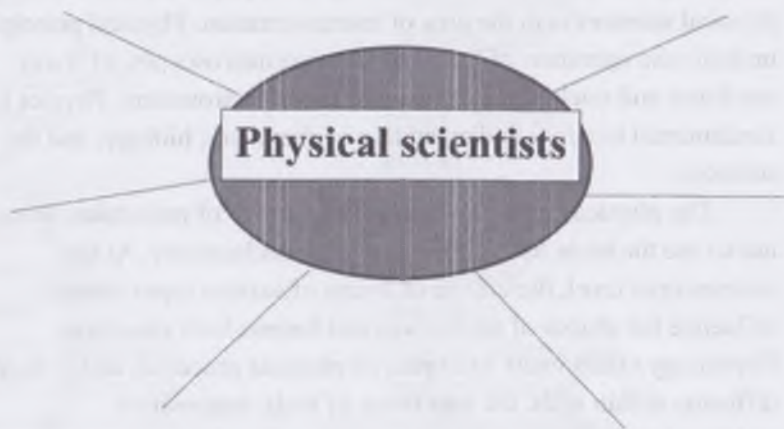
Answer the following questions.

1. What did the Greeks discover?
2. What do physicists attempt to understand?
3. What is the impact of physics on life?
4. What is the relation of physics to other sciences?
5. What discoveries did Galileo?
6. What contribution did Newton make to the law of gravity?
7. Why are people with varied interests attracted to studying physics?
8. How many other physical scientists do you know?
9. Why is physics a natural science?
10. What does physics learn?

New words of the text:

Matter	modda
Energy	energiya
Pure science	asl, toza fan
Branches	sohalar
Loosely	erkinlik bilan
Classical physics	klassik fizika
Modern physics	zamonaviy fizika
Promoted	martabasini ko'tarmoq
Fluid mechanics	suyuq mexanika
Buoyancy	boylik
Gravity	yerning tortishish kuchi
Hydrostatics	gidro statika
Statics	statika
Natural sciences	tabiiy fanlar
Mathematical disciplines	matematik fanlar
Solar systems	quyosh tizimlari
Occupy	egallamoq
Laws about gravity	tortishish qonunlari
Ultimately	oxirida
Scientist	olim
Scope	qamrov

Complete the cluster.



Text 3. Overview in physics

A typical short dictionary definition says that physics is a branch of science that deals with matter, energy, and their interactions. Longer dictionary entries usually expand the definition by noting that physics includes subfields such as mechanics, heat, electricity, and so forth. They give no clues as to why some subfields of science are included and others are not. A better approach to defining physics is to ask what physicists are concerned about. Physicists attempt to understand the basic rules or laws that govern the operation of the natural world in which we live. Since their activities and interests evolve with time, the basic science called physics also changes with time. Many of the most active contemporary subfields of physics were undreamed of a generation or two ago. On the other hand, some parts of what are now considered to be chemistry or engineering were once