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**Предмет**: Химия
**Класс**: 7 класс
**Раздел**: Атомы. Молекулы. Вещества
**Тема**: Элементы и их соединения

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| Элементы и их соединения | -понимать элемент (простое вещество) как совокупность одинаковых атомов<br>-знать, что чистое вещество состоит из одинаковых атомов или молекул<br>-различать понятия: элемент (простое вещество), смесь и соединение<br>-The pupils use the terminology of previous lessons;<br>-The pupils know and apply new words and terms;<br>Чистое вещество Pure substance однородная смесь homogeneous mixture неоднородная смесь non-homogeneous mixture соединение compound атом atom молекула molecule<br>-The pupils can read the chemical formulas in English, use chemical symbols .<br>-All learners will be able to use the terminology of previous lessons using the dictionary<br>-Most learners will know and apply new words and terms. Students can read the chemical formula in English using chemical signs and symbols using a dictionary.<br>-Most learners will know and apply new words and terms themselves |

## Ход урока

| **Этапы урока** | **Запланированная деятельность на уроке** | **Ресурсы** |
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| Stages of the lesson | **Tasks and Exercises**<br>1.Greetings / warm-up: 1. Organization moment .<br>Creating a Collaborative Environment Hello!<br>Sit down.<br>First one let’s speak a little.<br>Please answer the questions:<br>-What day is it today?<br>-What is the date today?<br>-Do you have a notebook? Books?<br>-Do you have pens?<br>-Excellent! We study chemistry. Today we will have a very interesting work. But first we will do an activity<br>2. Activization of previous knowledge of students:<br>Задание: Встаем в круг. У учеников терминология на английском и русском языке. Один ученик читает на английском языке и ищет пару на русском языке.<br><br>Халат Lab jacketВнимательно слушатьListen carefully Пальцы Fingers Химикаты Chemicals ПерчаткиGloves Кидать ThrowОдевать Wear Защитные очки Safety goggles БегатьRunГорячееHeat Завязывать Tie Трогать Touch<br>-Excellent! Did you like it? Let’s applaud ourselves for the excellent work!<br>**3. Introduction of new material on the subject content**<br>**3.1.Today we have a new theme**: **Elements and compounds. Matter.**<br>-What do you think, what will we talk about today? That’s right.<br>Ученики работают в группе с текстом, читают и составляют кластер.<br>***1 группа***. All living organisms are made up of Matter, which is defined as anything that takes up space and has mass. Matter exist in all diverse forms. Rocks, metal, oils, gases and humans are just a few examples of what seems an endless assortment of matter.<br>There are three states of matter – solid , liquid and gas. And all these states of matter is made of elements. An Element is a substance that cannot be broken down to other substance by chemical reactions. Today chemists recognized 118 elements, of which 94 elements occurring naturally on earth; gold, copper, carbon and oxygen are examples, with the remaining 24 being synthetic elements.<br>5e0340d6c5919.png<br><br>Image not found or type unknown<br>***2 группа*** Of the 94 natural elements, about 20-25 % are essential elements that are required by an organism to live a healthy life and reproduce. Essential elements are similar among organisms, but there is some variation- forexample, humans need 25 elements, but plants need only 17. Just four elements– oxygen (O), carbon ( C) , Hydrogen (H) and nitrogen (N) – make up 96% ofliving matter. Calcium (Ca), phosphorus (P), Potassium (K), Sulphur (S) and fewother elements accounts for most of the remaining 4 % of an organisms mass.These Trace elements are required by an organism only in minute quantities(some trace element such as iron (Fe) are needed by all forms of life, others arerequired by only certain species).<br>***3 группа*** When these two or more elements combined in fixed ratio which associate via chemical bonds, chemists called that substance a Compound.Table salt, for an example is sodium chloride (NaCl) a compound consist of the elements Sodium (Na) and Chlorine (Cl) in a ratio 1:1. Pure Sodium is a metaland pure chlorine is poisonous gas. But when chemically combined, sodium and chlorine form an edible compound. Water (H2O), another compound, consist of the elements Hydrogen and Oxygen in a ratio 2:1 ratio. These are simple examples of organized matter having emergent properties. The above combinations shows that a compound always has characteristic properties that are different from those of its elements.<br>5e034134529eb.png<br><br>Image not found or type unknown<br>**4. Заполнить схему.**<br>Цель: читаем новые слова, записываем их в словарь.<br>5e0341901fea1.png | |
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