bilimger.kz
Республикалық білім және ғылым порталы
https://bilimger.kz
ҚР Мәдениет және Ақпарат министрлігі тіркелген — Куәлік нөмірі:
KZ45VPY00102718
2018

БӨЛІМ: ХИМИЯ

Ашық сабақ "Acides"

ЖАРИЯЛАНДЫ	СІЛТЕМЕ
24.10.2018	https://bilimger.kz/53422/

АННОТАЦИЯ / АҢДАТПА

Ayazbaeva Gulbarshyn

Short term plan

Theme of the Lesson:	**Review : Acids**	
Subject : chemistry	**Teacher name: Ayazbaeva Gulbarshyn**	
Date: 28.03.18	**Class:**	
Lesson objectives	Give the concepts of acids and their classification, about properties	
Criteria assessment	**Learners achieve the aim if:** can write classification acids can write chemical properties	
Values	**Group work- collective, responsibility for command work result;** Individual work- learn forever, honesty while doing self work	
Connection with other subjects	**Science: physics, biology**	
Org moment Warm — up	Good moorning! who is absent? who’s on duty? The mossay method is divided into groups . I. «Brain Attack» 1. Types of oxides? 2. The general formul of oxides? 3. What is oxide? 4. With what do oxides react? Division into the group by the Mosaic method Let is watch video	

Prezentations	What is an Acid? □ An acid is a substance that produces hydrogen ions, H+ in water. □ An acid therefore can conduct electricity. □ pH < 7 □ It has a sour taste. □ It has a stinging feeling. □ It is corrosive. Examples of Acids Names of acids Chemical formula Hydrochloric acid — HCl In gastric juice in the stomach Sulphuric acid -H2SO4 In car battery Nitric acid- HNO3 In the preparation of fertilizers and explosives Carbonic acid H2CO3 In fizzy drinks Citric acid C6H8O7 In oranges and lemons Acids Strong- H2SO4 HNO3 HCl Strong weak Weak — H2CO3 HNO2 CHEMICAL PROPERTIES OF ACIDS NEUTRALIZATION An acid when reacts with a base, salt & water are produced. This reaction is called neutralization HCl + NaOH →NaCl + H2O HNO3 + NaOH → NaNO3 + H2O HCl + KOH → KCl + H2O REACTION WITH CARBONATES Acid and carbonates are combined to produce salt, water and carbon dioxide MgCO3 + 2HCl → MgCl2 + CO2 + H2O CaCO3 + 2HCl → CaCl2 + CO2 + H2O Na2CO3 + H2SO4 → Na2SO4 + CO2 + H2O CaCO3 + H2SO4 → CaSO4 + CO2 + H2O REACTION WITH BICARBONATES Acid and bicarbonates are combined to produce salt, water and carbon dioxide NaHCO3 + HCl →NaCl + CO2 + H2O REACTION WITH METAL With Zinc: Zn + 2HCl → ZnCl2 + H2 With Aluminum: 2Al + 6HCl → 2AlCl3 + 3H2 Reaction with iron oxide: 6HCl + Fe2O3 → 2FeCl3 + 3H2O

Practice	grop work Lab works. 7 properties of acids Introduction Acids change the colours of indicators. The are corrosive.They react with metals,bases and some of the salts. Materials Sulfuric acid solution ,methylorang indicator ,piece of chalk, aluminium pieces. Procedure 1. Pour 20ml of Sulfuric acid solution into the beaker,check whith methylorang indicator . 2. Add 3-4 pieces of aluminium pieces to the sulfuric acid solution . 3.Repeat procedure with adding 5 g of chalk into solution of Sulfuric acid . Observation and guestions 1. Write eguation of chemical reaction 2. Try to explain colour change of litmus paper indicator after the reaction.

Oxide	Types acides	end equation and equation
H_2PO_4		$P_2O_5+H_2O\rightarrow$
H_2CO_3		$H_2O+CO_2\rightarrow$
H_2SO_3		$SO_3+Na_2O\rightarrow$
H_2SO_4		$N_2O+H_2O\rightarrow$
HNO_3		$HCl+NaOH\rightarrow$
HCl		$N_2O_5+H_2O\rightarrow$
HCOOH		

Assessment criteria	Descriptors fully describes acids
end of lesson	will respond to questions on a new topic by using the pen medium
home work	Acids
End of the lesson reflection	**writes the effect on the lessons to the smileys**