



*M*a*T*c*H*e*S*.

Make the chemistry sexy
Knowledge card game



Erasmus+



1st Primary School of Pefka
5/3/2018

Instructions

We created a board game that includes a board and 20 questions about Chemistry that match the knowledge of sixth grade children. The game can be played by 2 to 4 players.

Instructions:

- At the beginning, each player throws the dice and whoever bears the highest number plays first.
- Then each player rolls the dice when he comes in and moves as many blocks as the dice shows.
- If he falls into a block with a ladder and a snake (eg No3), he must pull a card. If he answers properly, he climbs up the ladder. If not, the snake swallows him.
- If he falls in a square with a star (eg No 5), he must pull a card again. If he replies correctly he re-throws the dice. If he answers wrong, he loses his turn (does not play in the next round).
- The winner is the first to reach No100.

What substances are called acids?

Acids is one of the major classes of chemical compounds. One of their features is that they taste sour (acid).

What are basis?

Bases is an important class of chemical compounds. Their taste is flaming (bitter) and their texture is soap like (greasy). They should not be tasted because they may cause burns.

What are indicators? Give some examples

Indicators are substances that change colour when we add acid or base to them or even mixtures containing acid or base. They are pigments found in some herbal products, such as tea, cabbage, beet roots.

How do we call a chemical reaction that is created when we mix acid and base?

When we mix acid with base, the chemical reaction created is called neutralization.

How salts are created?

During the chemical reaction of neutralization, salts and water are produced.

Why vinegar should not fall into marbles?

The marbles are salts. When we pour acid on salts, the surface gets eroded because acids dissolve salts.

When is the water hard and when soft?

The water is hard when it contains many salts and soft when it contains less.

Why do we put ammonia on the spot when pinched by a bee, while we put vinegar when pinched by a wasp?

The bee venom contains acid, that is why we put ammonia or baking soda to cause neutralization. The wasp venom contains base, so we put vinegar, which is acid, and we neutralise the base.

Our stomach fluids contain hydrochloric acid, which helps in the digestion of food. When do we take anti-acid and what does it contain?

We take anti-acid pill that contains base to create neutralization to the stomach acid.

What are acids and bases useful for?

Acids and bases are useful in our daily lives. We use acids for the manufacture of detergents to clean surfaces with salts, and bases in detergents and soaps to dissolve fats.

What are the dangers of improper use of cleaners and detergents?

We should be very careful in the use of detergents. Contact with skin may cause irritation or burns. Yet, we should not taste them because they can cause internal burns. We should not even inhale them because they may cause problems in the respiratory system.

What is acid rain? What is it due to?

The rain is called acid rain when it contains acids dissolved in increased amounts. It is due to atmospheric pollutants.

What are the affects of acid rain?

It affects human health. It also affects the waters of lakes and rivers, the plants and the soil.

Mention a fer uses of acids and bases in our daily life.

In our daily life we use acids and bases in home care, in our personal cleanliness but also in industry.

What does the cleanser that releases the drains contain, acid or base?

The cleanser that releases the drains contains basis to dissolve fats.

What acid do aspirins contain?

The aspirins contain acetylosalicolico acid

What is yoghurt, acid or base?

The yoghurt is acid.

What do we daily drink and has salts?

Every day we drink water that contains salts.

What do glass cleaners contain?

The glass cleaners contain basis

What do carbonated soft drinks contain?

Carbonated soft drinks contain acids

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This project has been funded with support from the European Commission.

This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be