



Co-funded by the
Erasmus+ Programme
of the European Union

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EXAMINE, OBSERVE, CONCLUDE!

EXPERIMENTS DIARY



13th June 2018

9. MAGICAL BALLOONS

Things you need:

• two balloons • wide dish • small candle • matches • dish with water.

The course of experiment:

1. Blow the first balloon and tie it on the knot.
2. Pour water into the second balloon and tie it to the knot.
3. Place the heater in the container and set it on fire.
4. Move the inflated balloon over the candle flame.

What are we observing?

5. Place a balloon with water over the candle flame.

What are we observing?

Observations:

Conclusion:

8. CRUSHED BOTTLE

Things you need:

- a dish with hot water • a plastic bottle • a bowl.

The course of the experiment:

1. Put some hot water in the plastic bottle.
2. Spin the bottle and turn it around in all directions.
3. Then pour the water out of it and screw the bottle down.
4. Shake the bottle up and down as soon as you can.

What are we observing?

5. Then unscrew the bottle and tilt it up over the bowl.

What are we observing this time?

Observations:

Conclusion:

1. LAKE OF THE NENUFARS

Things you need:

- a plate • paper flowers • dish with water.

The course of experiment:

1. Fold the petals of the flower to the inside. It has to be folded in way that flakes won't block each other.
2. Fill the plate with water.
3. Put the flowers on the surface of the water but don't let the petals be wet!

What can you see?

Observations:

Conclusion:

2. DENSITY TOWER

Things you need:

• liquid honey • dish with water • dye • oil • metal cap • grape • plastic cap • a piece of sponge • cup • table spoon • a high transparent vessel, eg a glass.

The course of experiment:

1. Add a few drops of the dye to the cup water and mix.
2. Pour the comparable amount of honey, oil and water with the dye into a high pot.
3. Wait for a while to let the liquids settle into the layers.
4. Insert liquids carefully: metal cap, grape, plastic cap, sponge.
5. Watch what is happening.

Observations:

Conclusion:

7. LAVA FLASH

Things you need:

• dish with water • oil • colourless container • effervescent tablet • dye • cup.

The course of experiment:

1. Add oil to the $\frac{3}{4}$ jar.
2. Add water to the $\frac{3}{4}$ cup and add a few drops of the dye.
3. Add the colored water to the dishes with oil.
4. Throw in the sparkling tablet.

What are we observing?

Observations:

Conclusion:

6. DANCING EGG

Things you need:

• egg • salt • spoon • funnel • glass with water • a litre jar half-filled with water.

The course of experiment – stage I:

1. Carefully place the egg in the water. What are we observing?

Observations – stage I:

The course of experiment – stage II:

2. Remove the egg from the water.
3. Put 4 spoons of salt into water and mix. If the salt entirely dissolves, still add more salt until you won't be able to dissolve it.
4. Put the egg into the water. What are we observing?

Observations – stage II:

The course of experiment – stage III:

5. Carefully use a funnel and add about 1 glass of clean water.
Observe the position of the egg.

Observations – stage III:

Conclusion:

3. DIVER IN A BOTTLE

Things you need:

• jar with water (quite high) • high plastic bottle with the cap full of water • paper clip • straw (best clear) • a piece of plasticine • scissors.

The course of experiment:

1. Prepare the diver:

- cut straw in the longer part, so that on either side of the fracture it has equal length;
- fold the paper clip so that a heart appears of such bellies, that will be able to enter in holes of the straw;
- put the bellies of the paper clip hearts in the holes of bent half straw;
- form a ball from plasticine and stick it to the paperclip in order not to cover up holes of the straw.

While holding the diver by the straw, put it into a jar filled with water. You should choose the plasticine load of the diver in such a way that only a small upper part stands above the surface;

2. Insert the diver into a water bottle (plasticine down) and screw the bottle tightly.
3. Alternately squeeze and release the walls of the bottle.
4. Observe the diver's movement and the water level in its interior.

Observations:

Conclusion:

4. JUMPING RAISINS

Things you need:

• raisins • sparkling water • high dish.

The course of experiment:

1. Put a handful of raisins into the dish.
2. Then, pour sparkling water until $\frac{3}{4}$ of the height of the dish.

Watch what is happening.

Observations:

Conclusion:

5. REVERSING WATER

Things you need:

• glass • jug with water • a sheet of construction paper • bowl.

The course of experiment:

1. Fill the glass to the brim with water.
2. Cover the glass with cardboard.
3. *Run the next stage of the experiment over the bowl.*

Holding the card with your open hand, turn the glass upside down with a quick movement.

4. Open the hand holding the card.

What are we observing?

Observations:

Conclusion:

