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ERASMUS+ KA229 2020-2022 PROJECT
SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING SOIL EXPERIMENT

COUNTRY:Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 1

NAME OF EXPERIMENT: Sand with magic

AIM OF EXPERIMENT :

***To** connect living beings and sand,to prove whether animals which live on sandy soils should have big or small feet

MATERIALS: several coins of different sizes and several different jar lids,a pancil,a container,sand(instead of sand you can use fine kitchen salt)

MAKING EXPERIMENT:

1- Put the coins and boxes in order.
2-Put half of the sand into the plastic container and smooth the top.
3. Put the pencil's dull end into the sand, then take it out and shake the container.Do the same thing with the coins.To begin, use the pencil to press the smallest coin into the sand. Then, move on to the biggest lid.

RESULT:

The pencil made the deepest and most rapid penetration of the sediment. The process of pressing the coins into the sand became increasingly arduous as their surface area expanded. This experiment demonstrated that animals that inhabit granular soil benefit from having larger feet, as exemplified by the camel.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING SOIL EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 2

NAME OF EXPERIMENT: Growing a plant without light

AIM OF EXPERIMENT : Observing a plant grow with or without light

MATERIALS: 2 smallcontainers,some dirt or cotton,lentils,a shoe box without holes,some water

MAKING EXPERIMENT:

First take the two containers and put dirt or absorbent cotton in them.

Put on the cotten or the dirt some lentils(in two containers).

Put a little water in the containers.

Place one of the containers in the box and the other containerin a place where there is light.

Wait a week and look at the results

RESULT:

After a week the container that was in the box will have grown white and the other one will be green.Why?

This happens because the container that was in the box has not photosynthesized,which is what gives plants their green color.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING SOIL EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 3

NAME OF EXPERIMENT: What is your soil like?

AIM OF EXPERIMENT : Finding out what type of soil you have:alkaline,neutral or asidic,and then choose which is best for each plant to grow better and healthier.

MATERIALS: Vinegar,baking soda,a container of water,a stick,soil

samples

MAKING EXPERIMENT:

First you put your sample of soil divided in two different containers.

Later you put water inside the containers

Later if you think that your soil is acid you put baking soda and if teh soil reacts the soil is acid

And if you think your soil is alkaline you put vinegar and if the soil reacts soil is alkaline.

If the soil doesn’t react,it is neutral and the soil doesn’t affect plants.

This experiment helps us if we need choose a special kind of soil for plant.

RESULT: This experiment easier selection of the correct soil.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING SOIL EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 4

NAME OF EXPERIMENT: Water absorption capacity of soils

AIM OF EXPERIMENT : The experimentation involves the assessment of the soil's water absorption capability

MATERIALS:

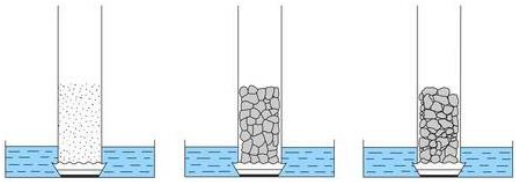
3 different types of soil,3 test tubes,filter paper

MAKING EXPERIMENT:

Check the soils' capacity to hold water. An place may not receive enough precipitation for an extended period of time during a drought. In this instance, water is absorbed by the soil from below, from the deeper layers, encouraging plant uptake of nutrients.

Three distinct dry soil types—sandy, loamy, and loess soil—should be used to assess the ability of various soil types to absorb water. Put each of these individually in a test tube and secure filter paper to the bottom. Place the glass tubes in water-filled containers and watch for water leaks.

Determine the level of moisture in each test tube's soil after ten minutes. Determine how high the water is seeping through the jars. Which soil allows water to seep up the quickest and which allows it to do so the



slowest? What factors affect the soil's ability to absorb water? Which type of soil is best suited for absorbing water?

Question 1: What does "water absorption capacity" mean?

How well the soil can take in water from the deeper layers of earth.

This refers to how much water the dirt can soak up from rain or snow that has fallen to the ground.

2. What kinds of dirt are good at absorbing water?

that let a lot of water through

those that are good at holding water

Third, what kind of dirt can soak up the most water?

Clay dirt that is bound

Field dirt that is loose and crumbly

4. In what kinds of weather is it very important that the earth can soak up a lot of water?

when there is a drought or too much rain

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING CHEMISTRY EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 1

NAME OF EXPERIMENT: The colours of light.

AIM OF EXPERIMENT : See the spectrum of light through a prism.

MATERIALS:

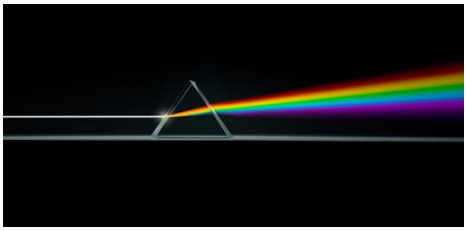
- A mirror.
- A tupperware.
- Water.

MAKING EXPERIMENT:

We put water in the mirror and lower it so that most of it is submerged vertically. Then we point the mirror at light rays and look at the colors that make up the light when it projects on a white surface.

RESULT: We can observe a rainbow.

PHOTO:



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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING CHEMISTRY EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 2

NAME OF EXPERIMENT: Discreet Writing

AIM OF EXPERIMENT : The purpose of this experiment is to demonstrate how certain substances behave when brought into touch with other substances or solutions.

MATERIALS:

Ingredients include paper, cotton swabs or little paintbrushes, baking soda, ethyl alcohol, and turmeric.

MAKING EXPERIMENT:

One-half glass of water is combined with a tablespoon of baking soda. Draw something or write a note on the paper using the sponge or paintbrush. While waiting for the paper to dry completely, combine the alcohol and turmeric. Combine one-half teaspoon of turmeric with half a glass of alcohol. Cover the paper with this mixture using the paintbrush and observe the change (the alcohol and turmeric mixture can also be sprayed into a sprinkler to reveal the message on the paper).

RESULT:

A different color is produced when the solution made of alcohol and turmeric is brought into close proximity with the solution made of water and baking soda. On the paper, the colorless liquid takes on a dark hue.

PHOTO:

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING CHEMISTRY EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 3

NAME OF EXPERIMENT: carbon dioxide bubbles

AIM OF EXPERIMENT : Obtaining carbon dioxide bubbles

MATERIALS:

- A plastic jar.
- Mothballs (Cherry tomatoes).
- Vinegar.
- Sodium bicarbonate

MAKING EXPERIMENT:

- We put the bicarbonate and mothballs in the jar.
- Half fill the jar with water.
- Add the vinegar.

RESULT:
A different color is produced when the solution made of alcohol and turmeric is brought into close proximity with the solution made of water and baking soda. On the paper, the colorless liquid takes on a dark hue.

PHOTO:

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING CHEMISTRY EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 4

NAME OF EXPERIMENT: carbon dioxide bubbles

AIM OF EXPERIMENT : Obtaining carbon dioxide bubbles

MATERIALS:

- A plastic jar
- Mothballs (Cherry tomatoes)
- Vinegar
- Sodium bicarbonate

MAKING EXPERIMENT:

We filled the jar with bicarbonate of soda as well as mothballs.
First, fill the jar up to the halfway point with water, then add the vinegar.

RESULT:
Mothballs (Cherry tomatoes) are made to float thanks to the chemical reaction between bicarbonate of soda and vinegar, which produces carbon dioxide bubbles that cling to the mothballs.

EXPERIMENT PLAN

MAKING GRAVITY and FORCE EXPERIMENT

COUNTRY: Turkey

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 1

NAME OF EXPERIMENT: Gravity and force relation

AIM OF EXPERIMENT :

To show by experiment that as the mass of the substance increases, the gravitational force acting on the mass increases in direct proportion.

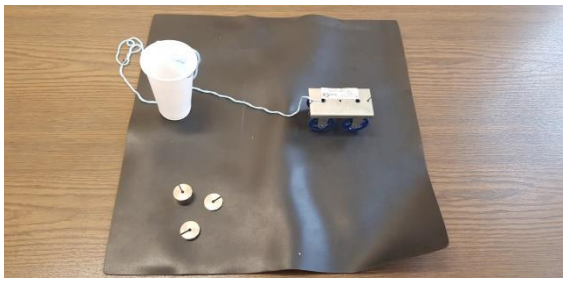
MATERIALS:

solid rope

Car

pet cup

10-20-50 grams



MAKING EXPERIMENT:

1- Let's connect the pet glass and the car with a rope as seen in the picture.

2-Let's release the pet glass so that it hangs from the end of the table.

3- After keeping the car and the glass in balance, let's put 10gr, 20gr and 50gr pet glasses in order.

4-Did the car accelerate as the masses in the pet glass increased? Why is that?

5-Discuss the results.

RESULT:

As we saw in our experiment, when we left 10 gr in the pet glass, our car moved slowly, faster at 20 gr and very fast at 50 gr.

Since the gravitational force is towards the center of the earth; As the mass increased, it pulled our car with more force. As a result, our car moved faster.

We observed that the gravitational force is directly proportional to the mass.

PHOTOS:

EXPERIMENT PLAN

MAKING GRAVITY and FORCE EXPERIMENT

COUNTRY: Turkey

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 2

NAME OF EXPERIMENT: Gravity direction

AIM OF EXPERIMENT : To have knowledge about the gravitational force by experimenting

MATERIALS: Three Legs,Support Bar,Connector With Hook, Nylon Rope, lighter

MAKING EXPERIMENT:

1-Install the device in the picture.

2- Hang the hooked coupling piece to the other hooked coupling piece with a rope and hang the 50gr mass.

3- Pay attention that the rope is taut and vertical. Consider the reason for this.

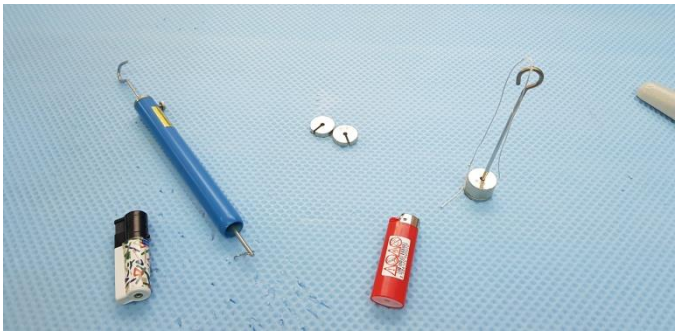
4- Light the rope with the flame of a match.

5- Has the hooked fastener fallen to the ground?

RESULT:

The reason why the rope in our experiment, with a weight hanging on the end, is taut and vertical is the force of gravity. The direction of the rope is the direction of the gravitational force. The gravitational force pulls all objects towards the center of the earth.

PHOTOS:



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SEE 2

SCIENCE THROUGH EXPERIMENT IN EUROPE 2

Science is the sound of the future!

EXPERIMENT PLAN

MAKING GRAVITY and FORCE EXPERIMENT

COUNTRY: Turkey

SCHOOL : Erzurumlu İbrahim Hakkı Oetaokulu

EXPERIMENT NUMBER: 3

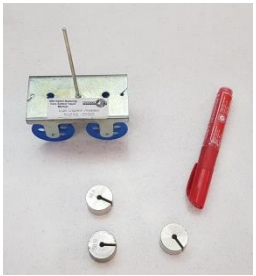
NAME OF EXPERIMENT: Frictional force

AIM OF EXPERIMENT : Experiment to see that the friction force depends on the weight of the object

MATERIALS:

1- Mass kit. (3 pieces of 50 gr)

2- Pen for marking



MAKING EXPERIMENT:

1-Do your experiment on a medium rough surface in the laboratory

2- Move the car by applying a pushing force without putting any mass first and mark the place where it stops

3- Mark the displacement distances by placing 50gr, 100gr, 150gr on the car in order and pushing it

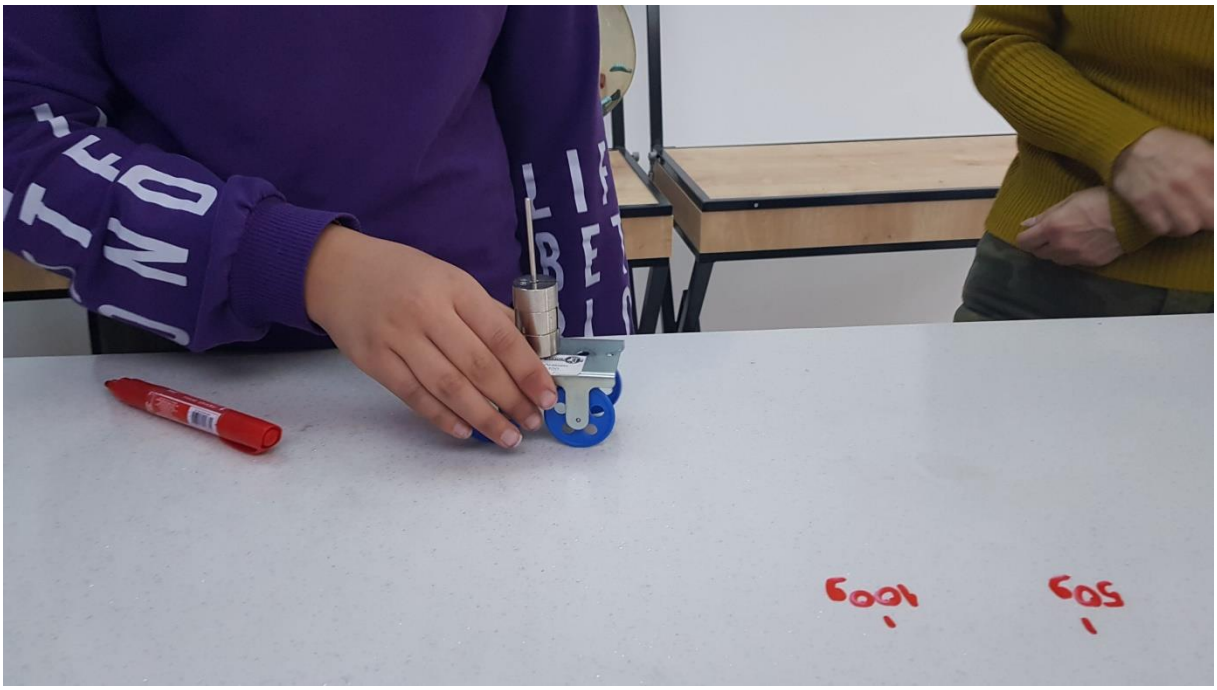
4-Compare the distances and discuss

RESULT:

Friction force is a type of force that occurs in the opposite direction of motion. When we put masses on our car, the weight of our car increased. As the weight increased, the amount of displacement of our car decreased.

Our experiment showed us that the friction force increases as the weight increases.

PHOTOS:



EXPERIMENT PLAN

MAKING GRAVITY and FORCE EXPERIMENT

COUNTRY: Turkey

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 4

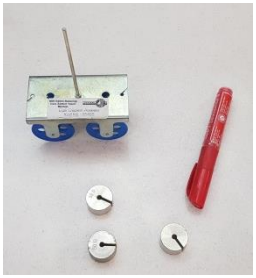
NAME OF EXPERIMENT: Frictional force

AIM OF EXPERIMENT : Observing by experiment that the friction force depends on the type of surface.

MATERIALS:

1- Mass kit. (3 pieces of 50 gr)

2- Pen for marking



MAKING EXPERIMENT:

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3- Mark the displacement distances by placing 50gr, 100gr, 150gr on the car in order and pushing it

4-Compare the distances and discuss

RESULT:

Friction force is a type of force that occurs in the opposite direction of motion. When we put masses on our car, the weight of our car increased. As the weight increased, the amount of displacement of our car decreased.

Our experiment showed us that the friction force increases as the weight increases.

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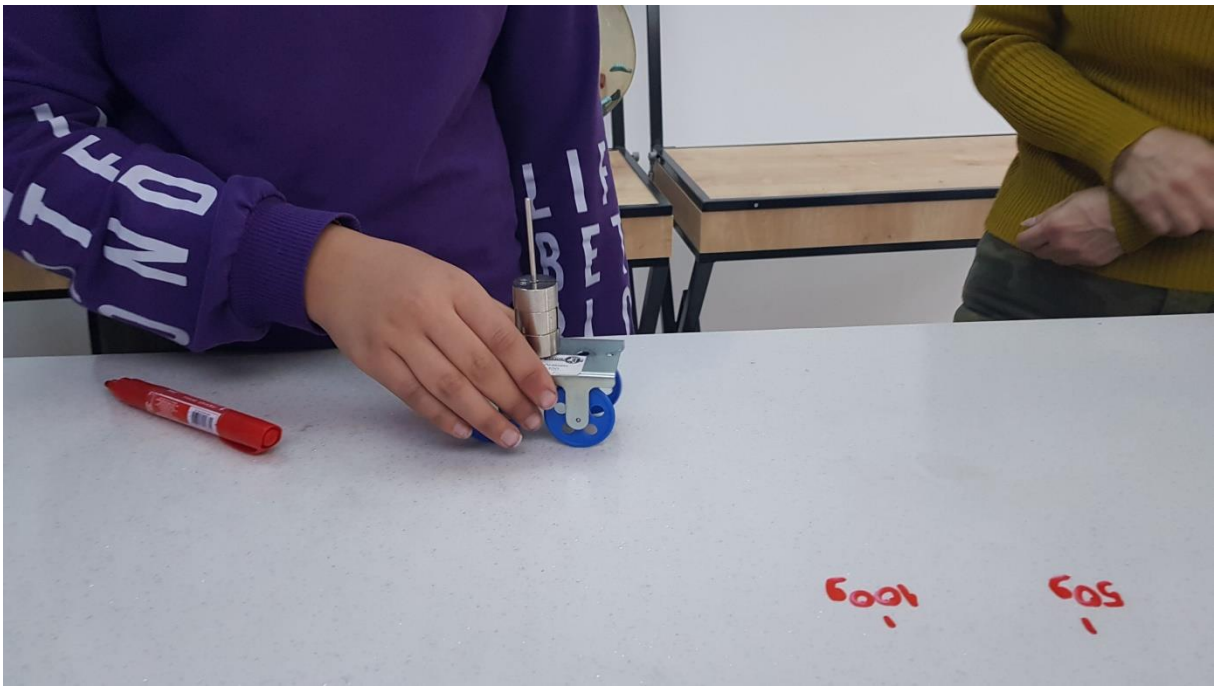

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING ENERGY AND POWER EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 1

NAME OF EXPERIMENT: How can fish conserve their vitality?

AIM OF EXPERIMENT :

Create a link between the energy and the living world. Demonstrate how organisms are able to reduce their energy consumption thanks to their adaptations.

MATERIALS:

The experimental setup consisted of two balloons, two smaller pebbles of approximately equal size, and a 2-liter container, such as a bowl, filled with water.

MAKING EXPERIMENT:

Fill the jar with water more than half of the way. Fill the balloons with the rocks. Fill up one balloon and tie it off. Then, empty the other balloon and tie it off. First put the balloon that isn't filled into the box, then the one that is.

RESULT:

The balloon that has been deflated is going to sink, but the one that has been inflated is going to float. This demonstrates that fish with a swim bladder require less movement from their fins and muscles than other types of fish. They do this in order to preserve their energy and feel less fatigued.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING ENERGY AND POWER EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 2

NAME OF EXPERIMENT: How can fish conserve their vitality?

AIM OF EXPERIMENT :

Create a link between the energy and the living world. Demonstrate how organisms are able to reduce their energy consumption thanks to their adaptations.

MATERIALS:

The experimental setup consisted of two balloons, two smaller pebbles of approximately equal size, and a 2-liter container, such as a bowl, filled with water.

MAKING EXPERIMENT:

Fill the jar with water more than half of the way. Fill the balloons with the rocks. Fill up one balloon and tie it off. Then, empty the other balloon and tie it off. First put the balloon that isn't filled into the box, then the one that is.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING ENERGY AND POWER EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 3

NAME OF EXPERIMENT: Instructions on how to construct an electric motor Instructions on how to construct an electric motor Instructions on how to construct an electric motor

AIM OF EXPERIMENT :

A simple electric motor-making tutorial.

MATERIALS:

The materials required for this experiment include a single AA battery, a length of copper wire, two neodymium magnets, and a wire cutter.

Needle-nose pliers are a type of tool characterized by its long, slender jaws that taper to a point.

A measuring instrument used to determine the length or distance of an object, typically marked with units of measurement such as inches or centimeters.

MAKING EXPERIMENT:

First, cut a piece of wire that is approximately 18 centimeters long and bend a small loop in the middle of the wire. Next, bend both sides down and attach your magnets to the negative end of the AA battery.
In the next step, bend each of the ends so that you have a rectangle. It is necessary for both ends of the copper wire to make a light contact with the magnet. Adjusting the copper wire so that it makes contact with the top of the battery and that both ends of the wire make contact with the

magnet will need some effort on the part of the user. When you get it just perfect, the copper wire will start to spin on its axis.

RESULT:

The copper wire can be made to spin with these simple instructions.

PHOTO:

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING ENERGY AND POWER EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 4

NAME OF EXPERIMENT: What the magic bubble is all about

AIM OF EXPERIMENT :

We're going to try to control a bubble without touching it and see what happens.

MATERIALS:

A balloon that has been filled with air or gas to increase its volume and create pressure within.

The topic of discussion is sugar.

Two items that are commonly found in households are a plate and a towel.

MAKING EXPERIMENT:

- Put the sugar in the plate or the surface that you have
- Rub the inflated balloon with the towel.
- Finally, approach the balloon (after rubbing it) to the surface with sugar and you will see how the sugar will stick to the balloon.

RESULT:

It was made to see how static electricity will stick sugar to a thing that has a negative charge because you have rubbed it with the towel.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING HEAT EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 1

NAME OF EXPERIMENT: Melting ice action

AIM OF EXPERIMENT : 1

The definitions of melting, melting point, and melting heat

MATERIALS:

small ice cubes, a glass dish, and a thermometer.

MAKING EXPERIMENT:

When heating ice (such smaller ice cubes) to a temperature of around 4 ° C, make sure to keep careful track on the temperature's progression.

The ice can be softened by just leaving it in a container at normal temperature; intense heating is not required.

It's puzzling because once the ice has warmed to 0 degrees Celsius, it stops getting any hotter even though it's still soaking up heat from its environment. The absorbed energy does not raise the ice's temperature, but rather causes the ice to melt and turn into water. Water at 0 ° C is found in the glass after some time has passed. The melting point of a solid is the temperature at which it begins to melt. Water's melting point is zero degrees Fahrenheit. Since ice absorbs energy from its surroundings during melting, we can conclude that water at 0 °C has greater internal energy than ice of the same mass at 0 °C. Accurate measurements show that

melting twice or thrice as much solids requires twice or thrice as much energy.

EXPERIMENT PLAN

MAKING HEAT EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 2

NAME OF EXPERIMENT: Expansion due to the application of heat; solid-state expansion

AIM OF EXPERIMENT :

The majority of substances expand in volume when their temperature is raised.

MATERIALS:

The objects mentioned include an iron ball, an iron ring, and a wine burner.

MAKING EXPERIMENT:

If you raise the temperature of most things, they will get bigger. This rise is known as heat expansion. Most of the time, growth is so small that you can't see it with the naked eye.
Try out the simple experiment below:
Look at how an iron ball that can just fit through an iron ring at room temperature changes as it warms up. The ball will no longer fit through the ring if it gets hot. This is because of thermal growth.
Then heat the ring too. Some people might be surprised that the hot ball can fit through the hot ring. Another way to look at it is that the hole in the ring grows like it's full of matter. This is true because the ring can be thought of as a smaller disc cutting a bigger disc in half around its center.
When heated, the diameter of both discs grows. Since the diameter of the inner disk grows, so does the diameter of the hole in the outer disk. This is also true if the hole is inside a body or if it is so big that the solid body around it is only a thin shell. So, a flask or glass bottle with thin walls

expands at the same rate as if it were made of solid glass the same size all the way through.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING HEAT EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 3

NAME OF EXPERIMENT: The phenomenon of thermal expansion in liquids

AIM OF EXPERIMENT :

To see that an increase in temperature results in a discernible expansion of a liquid's volume.

MATERIALS:

• wine heater • glass tube for holding urine

• a stopper for closing • water • alcohol

MAKING EXPERIMENT:

Take water in a glass jar and heat it up until it's warm enough to hold in your hand (36 °C).
To get a good look, fill the glass bottle all the way to the top and put a very thin glass tube into the stopper. This way, you can see how much liquid is in the tube as it expands.
For example, it is clear that heating makes the amount of the liquid grow significantly, while the thermal expansion of the glass container is almost invisible. Another fact is that if we heated alcohol along with the water, we would have seen that alcohol expands much more than ten times more than water does when the temperature changes by the same amount.
So, the quality of the material affects how much a liquid expands at high temperatures.
Of course, when it comes to liquids, the rule says that the amount of change in volume is equal to the original volume, just like the degree of temperature change.

Most of the time, when the temperature changes by the same amount, liquids expand more than solids. The volumetric coefficient of thermal expansion is used to classify liquids according to their thermal expansion characteristics. Its value reveals how much a 1 °C rise in temperature affects the volume of a liquid relative to its initial volume.
The coefficients of volumetric thermal expansion are typically tabulated for easy reference. Our table shows the milliliter-by-milliliter expansion or contraction of 1 liter of liquid due to temperature change.

RESULT: When heated, the volume of the liquid grew substantially.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING HEAT EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 4

NAME OF EXPERIMENT: Thermal expansion of objects

AIM OF EXPERIMENT :

A small iron ball on a stand, a burner

MATERIALS:

A small iron ball on a stand, a burner

MAKING EXPERIMENT:

Get the iron ball down into the ring on the base of the stand. Put the ball in front of the burner and see if you can get the same result. Take down your thoughts.

RESULT: When the metal ball is at normal temperature, it passes through the ring without any difficulty. Due to the ball's increased volume, it is now impossible for it to pass through the ring after being heated.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING SOUND EXPERIMENT

COUNTRY: Türkiye

SCHOOL : Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 1

NAME OF EXPERIMENT: How fast sound moves

AIM OF EXPERIMENT : The investigation of whether the perception of sounds is contingent upon the medium through which they propagate is undertaken.

MATERIALS:

A table with a metal or wooden top and a mechanical clock that is moving.

MAKING EXPERIMENT:

• At one end of the table, set a ticking clock and listen to its rhythmic chimes. Check your progress against the clock.
• Position the ear at the initial distance measurement using the glue.

RESULT: The auditory perception of the ticking sound produced by a clock is enhanced when it is listened to via the surface of a table. The velocity of sound transmission is greater in the wooden table top compared to the surrounding air medium.

The propagation of sound exhibits variations in speed across different settings, with the highest velocity observed in dense solids, followed by liquids, and ultimately gases.

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ERASMUS+ KA229 2020-2022 PROJECT
SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING SOUND EXPERIMENT

COUNTRY: Türkiye

SCHOOL: Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 2

NAME OF EXPERIMENT: Strange sound

AIM OF EXPERIMENT: Illustrate how the length of the tube of a wind instrument influences the production of distinct characteristic sounds.

MATERIALS: A wind instrument, namely a slide whistle

MAKING EXPERIMENT:

First, you'll need to blow air into the whistle in order to make the slide move.

Second, remember the high-tone producing position of the slide and the low-tone producing position.

Third, have fun improvising with various tonalities. Talk about the contexts (movies, jokes) in which you've heard these noises before.

RESULT: By manipulating the slide while blowing air into the instrument, one can discern the profound and high tones that the instrument is capable of producing, which are contingent upon the length of its tube.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING SOUND EXPERIMENT

COUNTRY: Türkiye

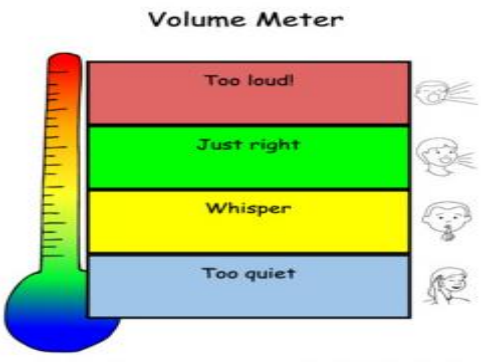
SCHOOL: Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 3

NAME OF EXPERIMENT: Relation between Sound and noise

AIM OF EXPERIMENT: The purpose of the activity is to demonstrate how certain noises persist at a constant volume even when the classroom is silent. We'll also show how and when it gets harder to concentrate based on the level of noise, as measured in decibels (dB) by a volume meter.

MATERIALS: A device used for measuring the loudness of sound



MAKING EXPERIMENT:

One, take a decibel reading in a full classroom to show that ambient noise exists even when everyone is silent. Our reading was 52 dB.

Second, we take a reading while the kids are carrying on a normal conversation, pulling out books, and shuffling them around. Our reading was 64.5 dB.

Finally, the kids talk loudly, shout, holler and ruffle. The class measures the volume and discusses the point of concentration. Our meter read 96.8 dB.

Feel free to re-measure if you so like.

RESULT: The noise kept getting louder from the very first measurement to the very last one that was taken. After conducting the experiment

once more, the students discussed the reasons why talking quietly or in a whisper is more productive than loud noise.

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SCIENCE THROUGH EXPERIMENT IN EUROPE 2

EXPERIMENT PLAN

MAKING SOUND EXPERIMENT

COUNTRY: Türkiye

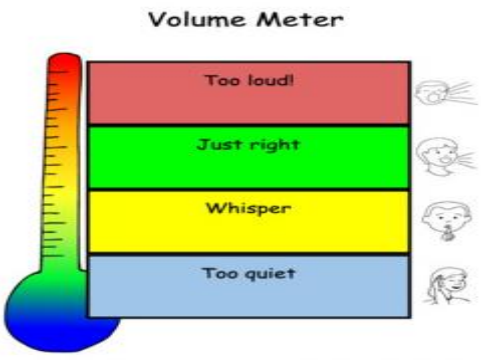
SCHOOL: Erzurumlu İbrahim Hakkı Ortaokulu

EXPERIMENT NUMBER: 4

NAME OF EXPERIMENT: Relation between Sound and noise

AIM OF EXPERIMENT: The purpose of the activity is to demonstrate how certain noises persist at a constant volume even when the classroom is silent. We'll also show how and when it gets harder to concentrate based on the level of noise, as measured in decibels (dB) by a volume meter.

MATERIALS: A device used for measuring the loudness of sound



MAKING EXPERIMENT:

One, take a decibel reading in a full classroom to show that ambient noise exists even when everyone is silent. Our reading was 52 dB.

Second, we take a reading while the kids are carrying on a normal conversation, pulling out books, and shuffling them around. Our reading was 64.5 dB.

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