

SCIENTISTS
KIDS = FUN!



EXPERImake

CREATED BY SCIENTISTS. FUN FOR KIDS!



WARNING

Not suitable for children under 8 years. For use under adult supervision. Contains some chemicals which present a hazard to health. Read the instructions before use, follow them and keep them for reference. Do not allow chemicals to come into contact with any part of the body, particularly the mouth and eyes. Keep small children and animals away from experiments. Keep the set out of reach of children under 8 years.

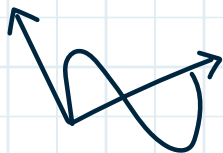
Warning. Contains ingredients that may cause allergies. Gloves are made of natural rubber latex.

SCENT-SATIONAL SPA

FUN FACTS INSIDE

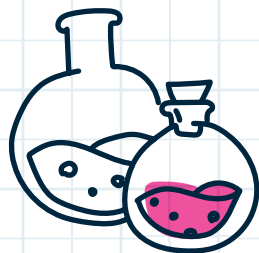
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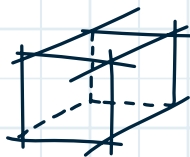
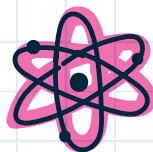
Advice for Supervising Adults

- Read and follow these instructions, the safety rules and the first aid information, and keep them for reference.
- The incorrect use of chemicals can cause injury and damage to health. Only carry out those experiments which are listed in the instructions.
- This experimental set is for use by children over 8 years.
- Because children's abilities vary so much, even within age groups, supervising adults should exercise discretion as to which experiments are suitable and safe for them. The instructions should enable supervisors to assess any experiment to establish its suitability for a particular child.
- The supervising adult should discuss the warnings and safety information with the child or children before commencing the experiments. Particular attention should be paid to the safe handling of acids, alkalis and flammable liquids.
- The area surrounding the experiment should be kept clear of any obstructions and away from the storage of food. It should be well lit and ventilated and close to a water supply. A solid table with a heat resistant top should be provided.
- Substances in non-reclosable packaging should be used up (completely) during the course of one experiment i.e. after opening the package.
- This set contains colourings which can stain. Keep away from objects and delicate fabrics.



Safety Rules

- Read these instructions before use, follow them and keep them for reference.
- Keep young children and animals away from the experimental area.
- Keep the game/kit out of reach of children under 8 years old.
- Clean all equipment and surfaces before and after use.
- Make sure that all containers are fully closed and properly stored after use.
- Ensure that all empty containers are disposed of properly.
- Wash hands before and after carrying out experiments.
- Do not use any equipment which has not been supplied with the set or recommended in the instructions for use.
- Do not eat or drink in the experimental area.
- Do not allow raw chemicals to come into contact with the eyes or mouth.
- Always conduct a PATCH TEST with your finished cosmetic product before applying to make sure you will not have an allergic reaction.
- **Warning.** Contains fragrances that may cause allergies. (Apple Fragrance: **Benzyl Salicylate, Hexyl Cinnamaldehyde, D-Limonene, Citral, Lilial**).
- Do not replace foodstuffs in original container. Dispose of immediately.
- The finished products should not be used if they change their appearance, colour or scent.



Contents


Protective gloves
Sea salt (100g)
Cleansing base (20ml)
Sodium Hydrogen Carbonate (15g)
Thickener (10g)
Citric acid (10g)
Yellow cosmetic colouring (3ml)
Apple fragrance (3ml)
Softening agent (5ml)
Foam booster (5ml)
Small measuring cup with lid
Large measuring cup
2 wooden spatulas
Plastic spatula
4 pipettes

Heart shaped flask
Flask
1 sheet of labels



Chemicals Supplied and Warnings

The below warnings relate to the pure chemicals and not to the finished cosmetic product you will be creating. Keep all containers tightly closed. Store in a cool, dry place.

Substance/ID	Ingredients	Hazard and Precautionary Statements
Apple Fragrance	Contains: <u>Alpha-Hexylcinnamaldehyde</u> , <u>Benzyl Salicylate</u> , (4R)-1-Methyl-4-1-(1-methylethenyl)-cyclohexene,3,7-Dimethyl-2,6-octadienal, 2-(4-tert-Butylbenzyl)-propionaldehyde, Delta-1-(2,6,6-Trimethyl-3-cyclohexen-1-yl)-2-buten-1-one and 2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde). May produce an allergic reaction.	Warning May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects. Collect spillage.  
Sea Salt (Sodium Chloride NaCl) CAS # 7647-14-5		Do not ingest. Avoid contact with eyes. Use only in accordance with instructions.
Citric Acid $C_6H_8O_7$ CAS # 77-92-9		Warning Causes serious eye irritation. Avoid contact with eyes. If in eyes: Rinse with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. 
Sodium Hydrogen Carbonate ($NaHCO_3$) CAS # 144-55-8		Do not ingest. Avoid contact with eyes. Use only in accordance with instructions.
Yellow cosmetic colouring (CI19140) CAS # 1934-21-0		Do not ingest. Avoid contact with eyes and mouth. Use only in accordance with instructions.
Softening Agent EC # 931-291-0		Danger Causes serious eye damage. Do not get in eyes. 

Foam Booster

CAS # 90170-45-9

Cleansing Base

CAS # 68891-38-3

Thickener

Xanthum Gum, Phenoxyethanol,
Methylparaben, Thylparaben,
Ethylhexylglycerin, Propylene Glycol

Warning

Causes serious eye irritation.

Do not get in eyes.

Warning

Causes skin irritation.

Causes serious eye damage.

Wear protective gloves. Do not get in eyes.

Do not ingest. Avoid contact with eyes.

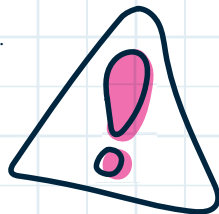
Use only in accordance with instructions.



Disposal of Used Chemicals and Packaging

When you need to dispose of chemical substances, it is necessary to refer to the national and/or local regulations. Never throw chemicals into sewers and garbage. For more details please refer to a competent authority. For disposal of packaging make use of the specific collection points.

Please recycle all packaging where possible.



General First Aid Information

• In case of eye contact:

Wash out eye with plenty of water, holding eye open if necessary. Seek immediate medical advice.

• If swallowed:

Wash out mouth with water, drink some fresh water. Do not induce vomiting. Seek immediate medical advice.

• In case of inhalation:

Remove person to fresh air.

• In case of skin contact and burns:

Wash affected area with plenty of water for at least 10 minutes.

• In case of doubt, seek medical advice without delay. Take the chemical and its container with you.

• In case of injury always seek medical advice.

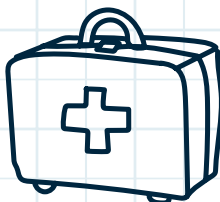
In case of emergency dial:

UK 999 • Europe 112

USA 911 • Australia 000

Write the telephone number of the national poison information centre or local hospital below.

They may provide you with information about measures to take in case of intoxication.



Welcome to the Wonderful World of Science!

EXPERIMAKE science sets have been designed by scientists to encourage **learning** through **play**.

Science, Technology, Engineering & Maths (STEM) education is important and each set will enable the development of at least two of these skills.

The **skills** and **knowledge** gained are essential for children's learning.

EXPERIMAKE sets not only support education but are fun and enjoyable for parents too.

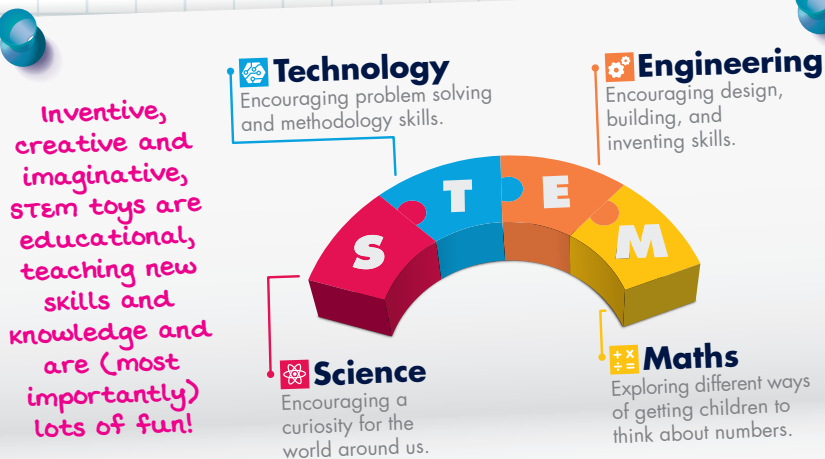
When having fun, or making discoveries, a neurotransmitter called **dopamine** is released. Dopamine helps control the brain's **reward centre**.

When we have a positive experience and dopamine is released, we are more likely to remember it.

So, if learning is a positive experience it will stimulate the brain to help develop various skills.

EXPERIMAKE sets are **educational toys** that combine **science** and **creativity** by fostering curiosity and experimentation.

We hope you enjoy exploring the wonderful world of science through our **EXPERIMAKE** range.



Why not share your results with us?

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[t AddoPlay](#)

hello@addoplay.com

EXPERIMAKE
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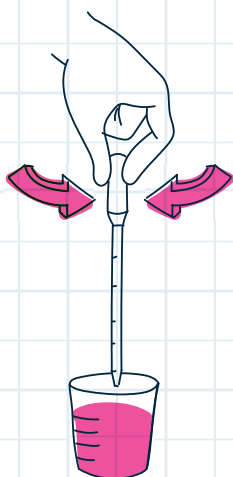
Before You Start...

How to Use Your Pipette

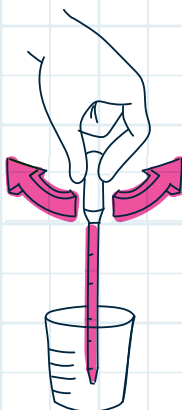
A pipette is used to collect liquid in small amounts and move from one container into another. It lets you control the amount of liquid you are adding by releasing a drop at a time. Before you begin with the experiments, you should practise using a pipette. The soft and squidgy end is called the **bulb** and the other end is called the **tip**.

1. Fill a small container with water, squeeze the bulb and place the tip into the water.
2. Slowly release the bulb until you see water filling up the tube.
3. Now that you have collected the liquid you can release it again in small drops. To do this, remove the pipette tip from the liquid and press the bulb lightly. You will see the drops come out one by one.

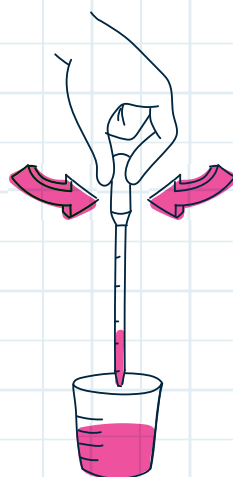
1.



2.



3.

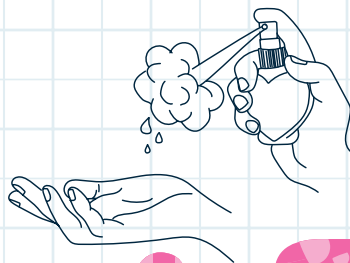


Tip: To avoid contamination, always use the same pipette for the same solution.

Patch Test

Before using your product, you should do a patch test to make sure you will not have an allergic reaction.

1. After making your product and before using it, put some drops on the inside of your wrist.
2. Wait 5 minutes.
3. Remove the product, washing the area with plenty of water and soap.
4. If there isn't any skin irritation you may use your product.



EXPERIMENTS

1. Fizzy Bath Bombs

You will need

Protective gloves, apple fragrance, yellow cosmetic colouring, sodium hydrogen carbonate, citric acid, sea salt, small measuring cup, large measuring cup, wooden spatula, pipettes, plate (not included).

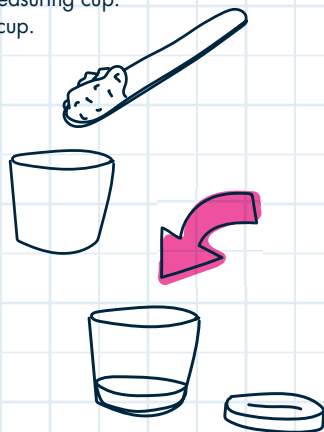
Ingredients of finished product: Sodium Hydrogen Carbonate, Citric Acid, Sodium Chloride, Benzyl Salicylate, Hexyl Cinnamal, Limonene, Citral, Butylphenyl Methylpropional, Parfum, Food Yellow 4, Phenoxyethanol, Methylparaben, Ethylparaben, Ethylhexylglycerin and Propylene Glycol.

Steps

1. Put on your protective gloves and pour 5ml of citric acid into the large measuring cup.
2. With a pipette add 10 drops of apple fragrance to the large measuring cup.
3. With another pipette, add drops of yellow cosmetic colouring until you have your desired colour.
4. Add 5ml of sea salt and stir well with the wooden spatula.
5. Add 5ml of sodium hydrogen carbonate to the large measuring cup. Stir with the wooden spatula.
6. The mixture should be dry, but slightly sticky.
7. Pour 5ml of the mixture back into the small measuring cup. Firmly press the mixture into the bottom of the measuring cup, using your thumb to compress. Turn the measuring cup upside down onto a plate and tap to release the fizzy bomb.
8. For best results set your fizzy bombs aside to dry during the night. If you really cannot wait, carefully place your fizzy bomb into water.
9. Observe the results.

Explanation

When in contact with the water, a chemical reaction occurs between the sodium hydrogen carbonate and the citric acid, releasing carbon dioxide. The release of this gas can be seen by the development of small bubbles in the liquid, creating effervescence!



Ideal Formulation

Fizzy Bath Bombs (6.55g)

Sodium Hydrogen Carbonate (2.4g),
Citric Acid (2.4g), Sodium Chloride (1g),
Fragrance (0.5g), Colouring (0.25g)

2. Bath Salts

You will need

Protective gloves, sea salt, apple fragrance, yellow cosmetic colouring, large measuring cup, small measuring cup, pipette, wooden spatula, heart shaped flask, labels.

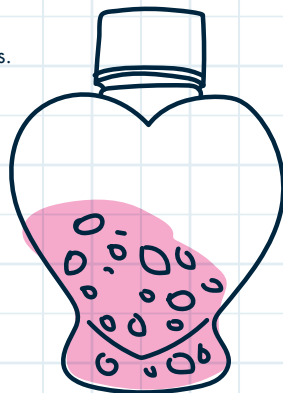
Ingredients of finished product: Sodium Chloride, Benzyl Salicylate, Hexyl Cinnamal, Limonene, Citral, Butylphenyl Methylpropional, Parfum, Food Yellow 4, Phenoxyethanol, Methylparaben, Ethylparaben, Ethylhexylglycerin and Propylene Glycol.

Steps

1. Put on your protective gloves and add 30ml of sea salt into the large measuring cup.
2. Add 4 drops of apple fragrance using the pipette.
3. With another clean pipette add some drops of yellow cosmetic colouring until you have the desired colour.
4. Stir well with the wooden spatula and carefully pour into the heart shaped flask.
Don't forget to apply your decorative labels.
5. Pour them into your bath and relax whilst you observe the results.

Explanation

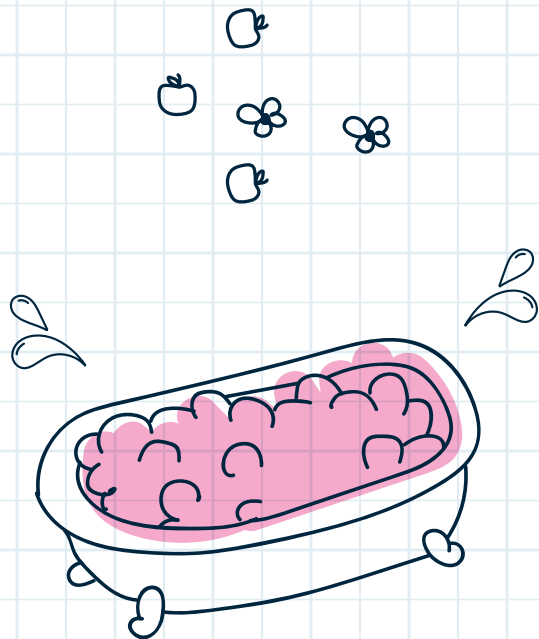
The colour and fragrance mixes with the sea salt to create your scented bath salts.



Ideal Formulation

Bath Salts (17.95g)

Sodium Chloride (17.3g),
Fragrance (0.4g), Colouring (0.25g)



3. Awesome Apple Hair and Body Wash

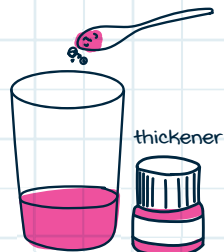
You will need

Protective gloves, thickener, cleansing base, softening agent, foam booster, yellow cosmetic colouring, apple fragrance, small measuring cup, large measuring cup, pipettes, wooden spatula, plastic spatula, flask, labels, teaspoon (not included), water (not included).

Ingredients of finished products: Aqua, Xanthan gum, Phenoxyethanol, Methylparaben, Thylparaben, Ethylhexylglycerin, Propylene Glycol, Alaninate Cocoyl, Sodium solution, Benzyl Salicylate, Hexyl Cinnamal, Limonene, Citral, Butylphenyl, Methylpropional, Parfum, Food Yellow 4.

Steps

1. Put on your protective gloves and pour 15ml of water into the large measuring cup. To speed up the production process you can use warm water from the tap.
2. Add 2 plastic spatula scoops of thickener to the water and stir with the wooden spatula until it has almost dissolved.
3. Add 8ml of cleansing base to the large measuring cup and stir well.
4. Cut off the tip of the pipette and add 2ml of the softener to the mixture and stir well.



5. Using another pipette, add 1ml of foam booster. Without shaking the mixture too much, carefully stir the mixture again. If the mixture is too thick you can add more water.
6. Add 3 drops of yellow cosmetic colouring and 15 drops of apple fragrance to the mixture and stir.
7. Observe the result.
8. Carefully pour the mixture into the flask.
Don't forget to apply your decorative labels.

Wait 1 day before using your Awesome Apple Hair and Body Wash.

Explanation

Shampoo + body washes are colloidal dispersions of various surfactants in water. The chemical nature of a surfactant, or detergent, allows it to surround and trap oily materials from surfaces so that they can be washed away with water.

Ideal Formulation

Hair and Body Wash (30.71 ml)

Water (15ml), Cleansing base (8ml),
Thickener (3.81g), Softening agent (2ml),
Foam booster (1ml), Fragrance (0.75ml),
Colouring (0.15ml)

4. Exfoliating Salt Scrub

You will need

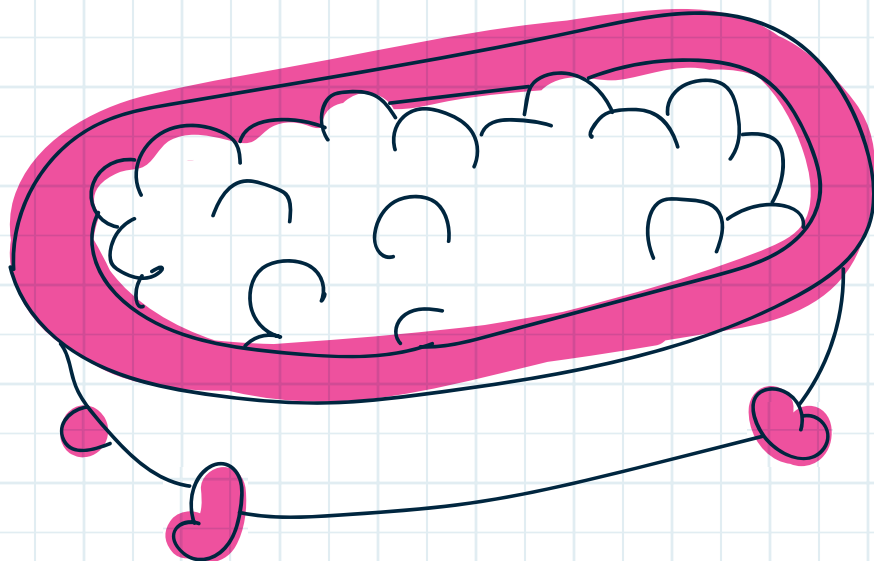
Protective gloves, sea salt, wooden spatula, large measuring cup, olive oil / baby oil (not included), table spoon (not included).

Steps

1. Put on your protective gloves and add 2 tablespoons of sea salt to the large measuring cup.
2. Add 1 tablespoon of olive oil or baby oil to the measuring cup and stir well with the wooden spatula.
3. Your exfoliating salt scrub is ready!
Try putting some salt scrub on your hands and rub it in.
4. Observe the result.

Explanation

The salt you added will remove the older skin revealing the softer newer skin. After using your salt scrub, always use a moisturiser.



5. Honey and Yoghurt Face Mask

You will need

Small measuring cup, large measuring cup, wooden spatula, natural yoghurt (not included), honey (not included).

Steps

1. Pour 25ml of natural yoghurt into the large measuring cup.
2. Add 25ml of honey into the large measuring cup.
3. Stir well using the wooden spatula.

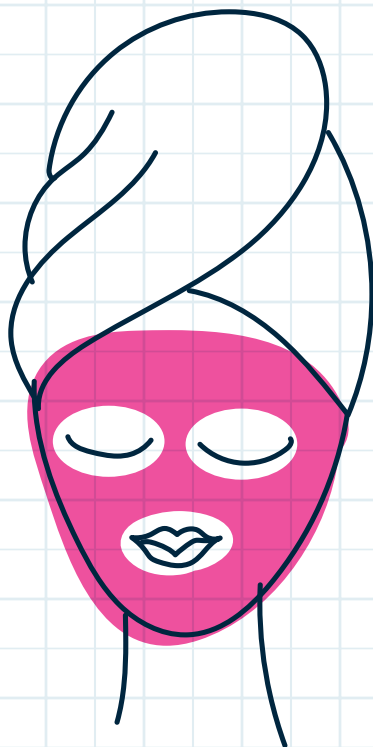
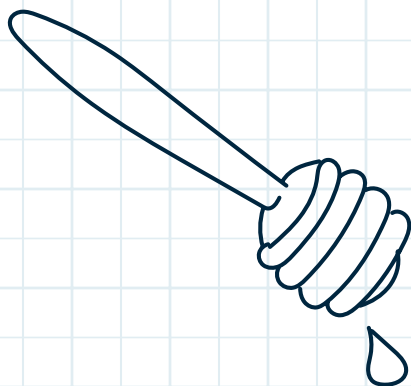
Note: Your face is very sensitive. Before applying any type of product on your face, apply a little bit to the back of your hand and wait a few minutes. If there is no reaction you may use it on your face, avoiding contact with eyes.

4. Apply the mixture on clean, dry skin. Leave it on for 10-15 minutes. Wash your face thoroughly and then apply a face moisturiser.
5. Observe the results.

! Attention! When you have finished the experiment, throw away all used food.

Explanation

The mixture will moisturise and soften your skin.



Periodic Table

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 H Hydrogen 1.008	2 He Helium 4.003																
3 Li Lithium 6.941	4 Be Beryllium 9.012																10 Ne Neon 20.180
11 Na Sodium 22.990	12 Mg Magnesium 24.305																18 Ar Argon 39.948
19 K Potassium 39.098	20 Ca Calcium 40.078	21 Sc Scandium 44.956	22 Ti Titanium 47.867	23 V Vanadium 50.942	24 Cr Chromium 51.996	25 Mn Manganese 54.938	26 Fe Iron 55.845	27 Co Cobalt 58.933	28 Ni Nickel 58.693	29 Cu Copper 63.546	30 Zn Zinc 65.38	31 Ga Gallium 69.723	32 Ge Germanium 72.631	33 As Arsenic 74.922	34 Se Selenium 78.971	35 Br Bromine 79.904	36 Kr Krypton 84.798
37 Rb Rubidium 84.468	38 Sr Strontium 87.62	39 Y Yttrium 88.906	40 Zr Zirconium 91.224	41 Nb Niobium 92.906	42 Mo Molybdenum 95.95	43 Tc Technetium 98.907	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.906	46 Pd Palladium 106.42	47 Ag Silver 107.868	48 Cd Cadmium 112.414	49 In Indium 114.818	50 Sn Tin 118.711	51 Sb Antimony 121.760	52 Te Tellurium 127.6	53 I Iodine 126.904	54 Xe Xenon 131.294
55 Cs Cesium 132.905	56 Ba Barium 137.328	57-71 Lanthanides	72 Hf Hafnium 178.49	73 Ta Tantalum 180.948	74 W Tungsten 183.84	75 Re Rhenium 186.207	76 Os Osmium 190.23	77 Ir Iridium 192.217	78 Pt Platinum 195.085	79 Au Gold 196.967	80 Hg Mercury 200.592	81 Tl Thallium 204.383	82 Pb Lead 207.2	83 Bi Bismuth 208.980	84 Po Polonium [209]	85 At Astatine 209	86 Rn Radon 222.018
87 Fr Francium 223.020	88 Ra Radium 226.025	89-103 Actinides	104 Rf Rutherfordium [261]	105 Db Dubnium [262]	106 Sg Seaborgium [266]	107 Bh Bohrium [264]	108 Hs Hassium [269]	109 Mt Meitnerium [268]	110 Ds Darmstadtium [269]	111 Rg Roentgenium [272]	112 Cn Copernicium [277]	113 Uut Ununtrium unknown	114 Fl Flerovium [289]	115 Uup Ununpentium unknown	116 Lv Livermorium [293]	117 Uus Ununseptium unknown	118 Uuo Ununoctium unknown

57 La Lanthanum 138.905	58 Ce Cerium 140.116	59 Pr Praseodymium 140.908	60 Nd Neodymium 144.243	61 Pm Promethium [145]	62 Sm Samarium 150.36	63 Eu Europium 151.964	64 Gd Gadolinium 157.25	65 Tb Terbium 158.925	66 Dy Dysprosium 162.500	67 Ho Holmium 164.930	68 Er Erbium 167.259	69 Tm Thulium 168.934	70 Yb Ytterbium 173.055	71 Lu Lutetium 174.967
89 Ac Actinium 227.028	90 Th Thorium 232.038	91 Pa Protactinium 231.036	92 U Uranium 238.029	93 Np Neptunium 237.048	94 Pu Plutonium 244.064	95 Am Americium 243.061	96 Cm Curium 247.070	97 Bk Berkelium 247.070	98 Cf Californium 251.080	99 Es Einsteinium [254]	100 Fm Fermium 257.095	101 Md Mendelevium 258.1	102 No Nobelium [259]	103 Lr Lawrencium [262]

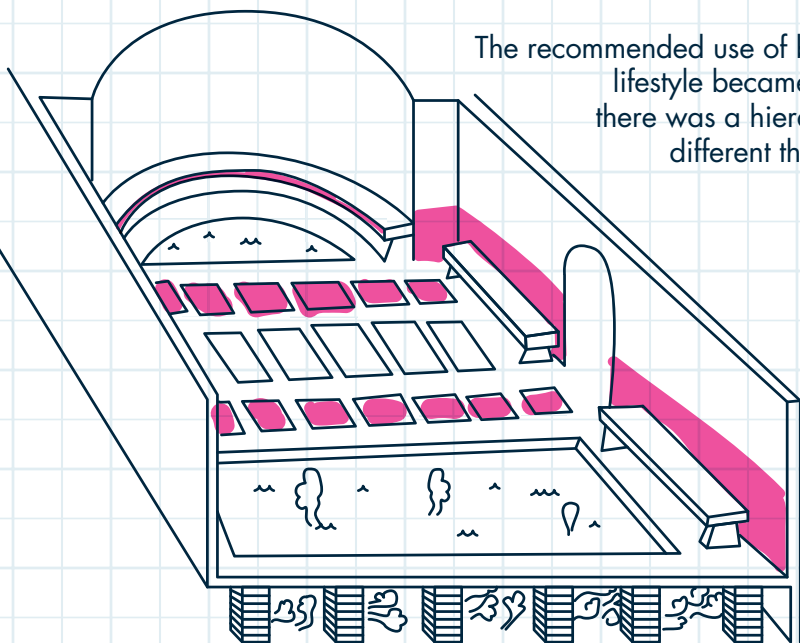
Alkali Metal	Alkaline Earth	Transition Metal	Basic Metal	Semimetal	Nonmetal	Halogen	Noble Gas	Lanthanide	Actinide
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FUN FACTS

The Romans were the first people to turn bathing into an event. They built public thermal baths where any citizen could enjoy the pleasure of bathing.

The first thermal baths appeared in places where it was possible to enjoy natural hot water springs or water with healing properties.

People took advantage of the hot water's properties to improve their health and relieve pain. They were also used for social interactions.



The recommended use of baths for a healthy lifestyle became so important that there was a hierarchy for using the different thermal bath rooms.

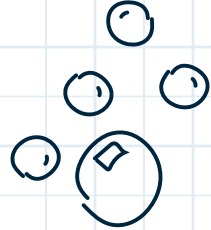


Congratulations! You are on your way to achieving your **experimake certificate**.

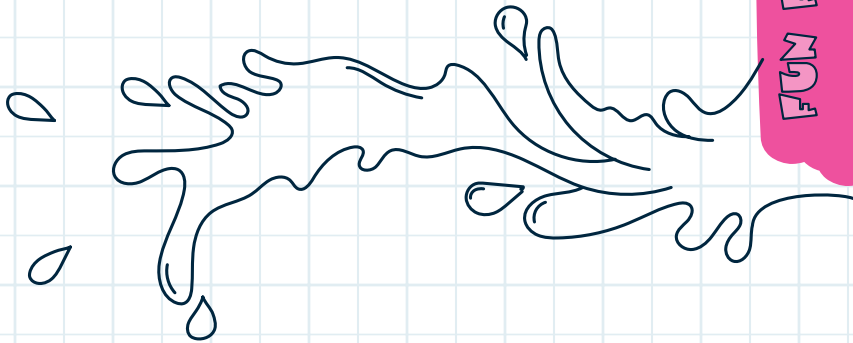
To claim your certificate collect **3** of these tokens and send them to us.



The word Spa became popular at the end of the 20th century. Modern day spas are places of relaxation, treatments, well-being and health.

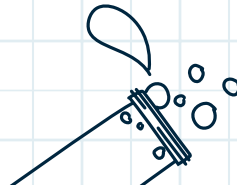


Water therapy is one of many treatments provided at a spa. Hot or cold water changes the nervous system which acts on the circulatory system, producing effects on the regulation of the body's temperature. This type of treatment is called hydrotherapy.



FUN FACTS

Aromatherapy is another therapy provided by Spas that uses the different effects of scents.



Please ask your parent or guardian to complete:

Name _____

Age _____

EXPERImake

Home Address _____

Email Address _____

Please send **3** tokens to Addo to receive your **experimake** certificate

Send to: Addo Play Ltd. Bucks, HP10 8EG, UK

We confirm that information disclosed to Addo Play will be held in accordance with our privacy policy, a copy of which is available on our website www.addoplay.com

319101101



Also Available...



*Subject to Availability

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