nickelodeon

USER MANUAL

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.

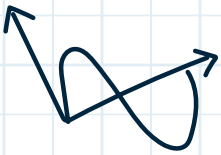
FUN FACTS INSIDE

SWEET SCENTS AND PERFUME

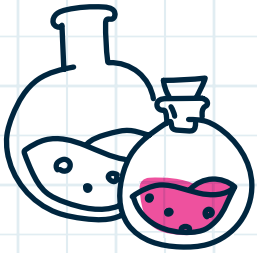
Addo Play Ltd. Bucks, HP10 8EG, UK. Tel: +44 (0) 1494 917250

Addo

Index



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.
- Store this experimental set out of reach of children under 8 years.
- 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 replace foodstuffs in original container. Dispose of immediately.
- Contains fragrances that may cause allergies, Apple Fragrance **(benzyl salicylate, hexyl cinnamaldehyde, d-limonene, citral and lilial)**.
- The finished products should not be used if they change their appearance, colour or scent.
- Always conduct a PATCH TEST with your finished cosmetic product before applying to make sure you will not have an allergic reaction.
- Do not allow raw chemicals to come into contact with the eyes or mouth.

Contents

Protective gloves
Sea salt (100g)
Liquid glycerine (15ml)
Vanilla fragrance (3ml)
Apple fragrance (3ml)
Pink cosmetic colouring (3ml)
Berry tea bag
Spray bottle
Heart-shaped flask
3 filter paper sheets
Large measuring cup
Small measuring cup
3 pipettes
5 wooden sticks
3 wooden spatulas
3 straws
3 plastic test tubes with lids
Funnel
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 containters tightly closed. Store in a cool, dry place.

Substance/ID	Ingredients	Hazard and Precautionary Statements
Apple Fragrance	Contains: **Alpha-Hexylcinnamaldehyde, Benzyl Salicylate, (4R)-1-Methyl-4-1-(1-methylethenyl) - cyclohexene,3,7-Dimethyl-2,6-octadienal, 2-(4-tert-Butylbenzyl)-propionaldehyde, Delta-1-)2,6,6-Trimethly-3-cyclohexen-1-yl)-2-buten-1-one and 2,4-Dimethly-3-cyclohexen-1-carboxaldehyde)**. May produce an allergic reaction.	**Warning**  May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects. Avoid release to the environment.
Vanilla Fragrance	Contains: **3-(4-tert-Butylphenyl)-propanal**. May produce an allergic reaction.	May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects. Avoid release to the environment.
Liquid Glycerine (80%) $C_3H_8O_3$ CAS # 56-81-5	Glycerine, Aqua	Do not ingest. Avoid contact with eyes and mouth. Use only according to directions.
Pink Cosmetic Colouring (CI 45100) CAS # 3520-42-1	Contains: Sulforrodamina, Phenoxyethanol, Methylparaben, Thylparaben, Ethylhexylglycerin, Propylene Glycol.	Do not ingest. Avoid contact with eyes and mouth. Use only according to directions.
Sea Salt (NaCl) CAS # 7647-14-5	Sodium Chloride	Do not ingest. Avoid contact with eyes and mouth. Use only according to directions.

Disposal of Used Chemicals and Packaging

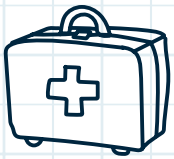
When you need to dispose of chemical substances, it is necessary to refer to the national and/or local regulations. Never throw chemicals into sewers and garbage. For more details please refer to a competent authority. For disposal of packaging make use of the specific collection points.
Please recycle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

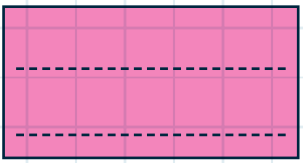
In case of emergency dial:

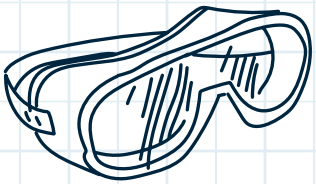
UK 999 • **Europe** 112
USA 911 • **Australia** 000

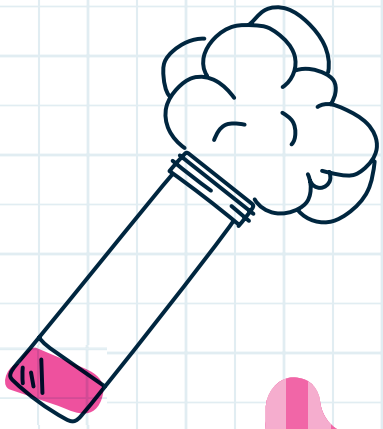


Write the telephone number of the national poison information centre or local hospital below.

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.

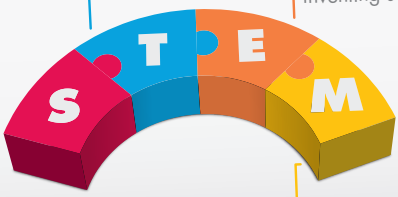
EXPERIMAKE sets are **educational toys** that combine **science** and **creativity** by fostering curiosity and experimentation.

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

Inventive, creative and imaginative, STEM toys are educational, teaching new skills and knowledge and are (most importantly) lots of fun!

Technology
Encouraging problem solving and methodology skills.

Engineering
Encouraging design, building, and inventing skills.



Science
Encouraging a curiosity for the world around us.

Maths
Exploring different ways of getting children to think about numbers.

Why not share your results with us?

@AddoPlay AddoPlay hello@addoplay.com

EXPERIMAKE
CREATED BY SCIENTISTS. FUN FOR KIDS!

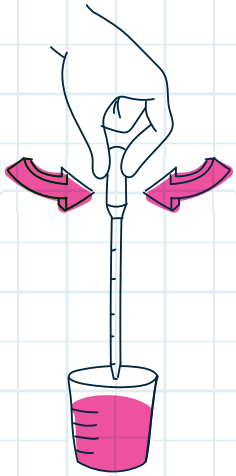
Before You Start...

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.



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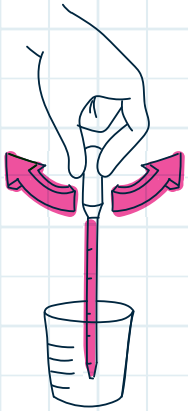

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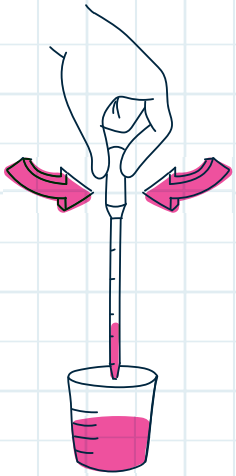
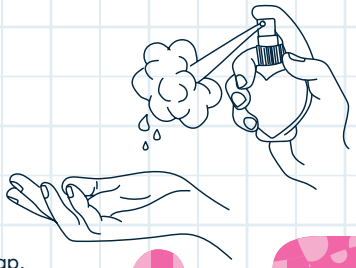


Tip: To avoid contamination, always use the same pipette for the same solution.

Patch Test

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



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

1. My First Perfume

You will need

Protective gloves, apple fragrance, vanilla fragrance, pipettes, test tube with lid, small measuring cup, funnel, spray bottle, labels, water (not included).

Ingredients of finished product: Aqua, Benzyl Salicylate, Hexyl Cinnamal, Limonene, Citral, Butylphenyl, Methylpropional and Parfum.

Explanation

One of the methods of making perfume is to combine fragrances of different raw materials. In this experiment, you have combined apple and vanilla fragrances with water.

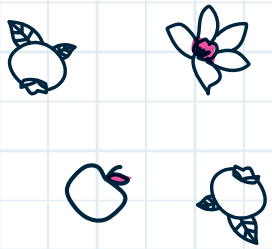
Steps

1. Put on your protective gloves.
2. Using a pipette, put 6 drops of vanilla fragrance into a test tube.
3. Using a different pipette, add 4 drops of apple fragrance into the same test tube.
4. Add 5ml of water into the test tube using the funnel.
5. Place the lid on the test tube and shake well.
6. Your perfume is made! You can either store it in the test tube or for convenience, pour your perfume into the spray bottle and apply as required (after patch test).

   Don't forget to apply your decorative labels.

Suggestion

Try varying the quantity of vanilla and apple fragrance to create a personalised scent.



Ideal Formulation

My First Perfume (5.5g)

Water (5g), fragrances (0.5g)

2. Natural Perfume

You will need

Protective gloves, liquid glycerine, tea bag, pipette, small measuring cup, large measuring cup, funnel, filter paper, test tubes with lid, labels, water (not included).

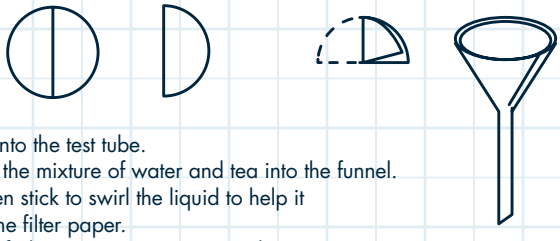
⚠ Attention! Tea has colour and can stain. Please keep away from clothes and delicate fabrics.

Explanation

In this experiment, you have created a perfume through an infusion. An infusion consists of a liquid saturated with the soluble compounds of a substance. In this infusion, the liquid (water) absorbs soluble compounds of the tea.

Steps

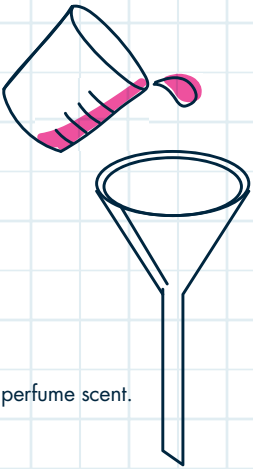
1. Put on your protective gloves.
2. With help, open the tea bag and pour half the content into the large measuring cup.
3. Add 10ml of water into the large measuring cup and mix well.
4. Set it aside for 10 minutes to make sure the water is well infused.
5. Fold the filter paper as shown in the diagram and place it in the funnel.



6. Put the funnel into the test tube.
7. Carefully pour the mixture of water and tea into the funnel.
8. Use the wooden stick to swirl the liquid to help it pass through the filter paper.
9. Measure 5ml of glycerine into a new test tube.
10. Using the pipette, transfer 10 drops of tea solution into the glycerine.
11. Put the lid on the test tube and shake so the glycerine and tea solution mix together.
12. Your perfume is made! You can either store it in the test tube or for convenience, pour your perfume into the spray bottle and apply as required (after patch test).

⚠ Attention! This perfume is very sensitive. Store it in a cool, dry place, away from direct sunlight. Use within one week.

Don't forget to apply your decorative labels.



Suggestion

Try mixing your natural perfume with vanilla and apple fragrance to create a mixed perfume scent.

Ideal Formulation

Natural Perfume (7.3g)

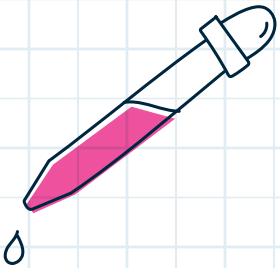
Liquid glycerine (6.8g),

Tea infused water (0.5g)

3. Scented Bath Salts

You will need

Protective gloves, sea salt, fragrance, 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, Phenoxyethanol, Methylparaben, Ethylparaben, Ethylhexylglycerin and Propylene Glycol CI 45100.

Steps

1. Put on your protective gloves.
2. Add 30ml of sea salt to the large cup.
3. Add 8 drops of a fragrance using the pipette.
4. Add drops of pink cosmetic colouring until you reach your desired colour.
5. Mix well with the wooden spatula and carefully pour into the heart-shaped flask.

Don't forget to apply your decorative labels.

Suggestion

If you want to intensify the smell, you can add some more drops of fragrance.

6. Pour them into your bath and relax whilst you observe the results.

Explanation

The fragrance and colour is absorbed by the salt. When the salt dissolves in the bath water it forms a coloured, fragranced solution.

For hundreds of years, salt water has been suggested as a method for treating skin and blood circulation problems, as salt activates blood flow.

Bath salts are made by mixing sea salt with fragrances and colouring. They are marketed and used as calming and relaxing remedies.

Ideal Formulation

Scented Bath Salts (17.95g)

Sodium chloride (17.3g), fragrance (0.4g), cosmetic colouring (0.25g).

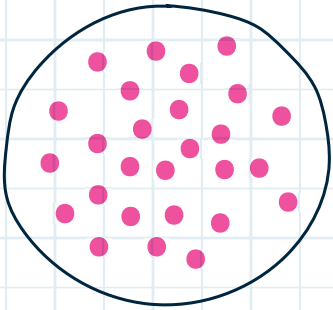
4. Perfumed Flowers

You will need

Protective gloves, fragrance, filter paper, pipette, straw, coloured felt tip pens (not included), water (not included), stapler (not included).

Steps

1. Put on your protective gloves.
2. Make sure your surfaces are protected.
3. Draw multi coloured dots all over the filter paper.
4. Using the pipette, carefully apply water droplets allowing each drop to disperse before applying more. Be careful not to overwet the paper as you could wash the colour out.
5. Allow the paper to dry.
6. Spray your fragrance on the filter paper.
7. When it is dry, shape you filter paper into a flower and staple it to a straw (with the help of an adult).



Suggestion

Once you have used the filter papers supplied in this set, you could use coffee filter paper to create even more scented flowers.
Your scented flowers would make a lovely gift.

Explanation

This process is called chromatography. Chromatography is a physical-chemical method used to separate homogeneous mixtures. This separation is possible because the components have different weight, mass and density.

Complex colours (secondary) are broken down into primary colours. This happens because the primary colours have different weights and therefore remain in different positions on the paper. The water can move the lightest colours the furthest distance.

Your perfume is a liquid so is absorbed by the filter paper.

Get to know the primary and secondary colours!

Primary colours Secondary colours

5. Perfume Your Room

You will need

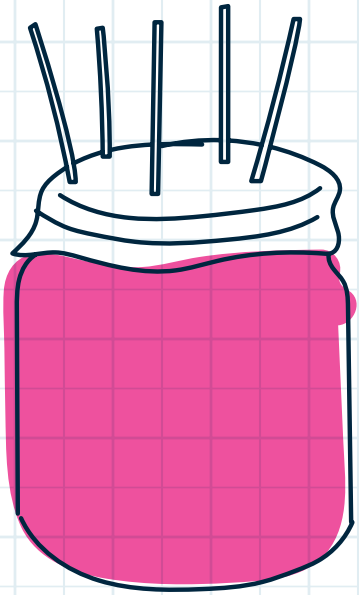
Protective gloves, large measuring cup, wooden spatula, wooden sticks, 2 jars (not included), strainer (not included), olive oil (not included), aluminium foil (not included), rosemary, lavender or another fragrant plant (not included).

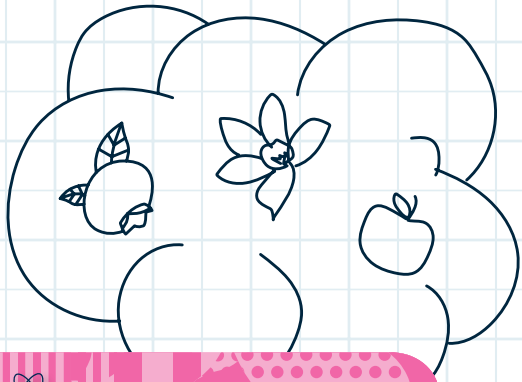
Steps

1. Put on your protective gloves.
2. Wash the plant with plenty of water and let it dry completely. This could take a few days.
3. Fill the jar with the plant.
4. Pour olive oil into the jar until it completely covers the plant and cover with aluminium foil.
5. Set the jar aside for at least two weeks.
6. Remove the foil and strain the oil with the plant infusion into another jar. Cover with the aluminium foil.
7. Push the wooden sticks through the foil as shown, and leave them to soak in the oil.

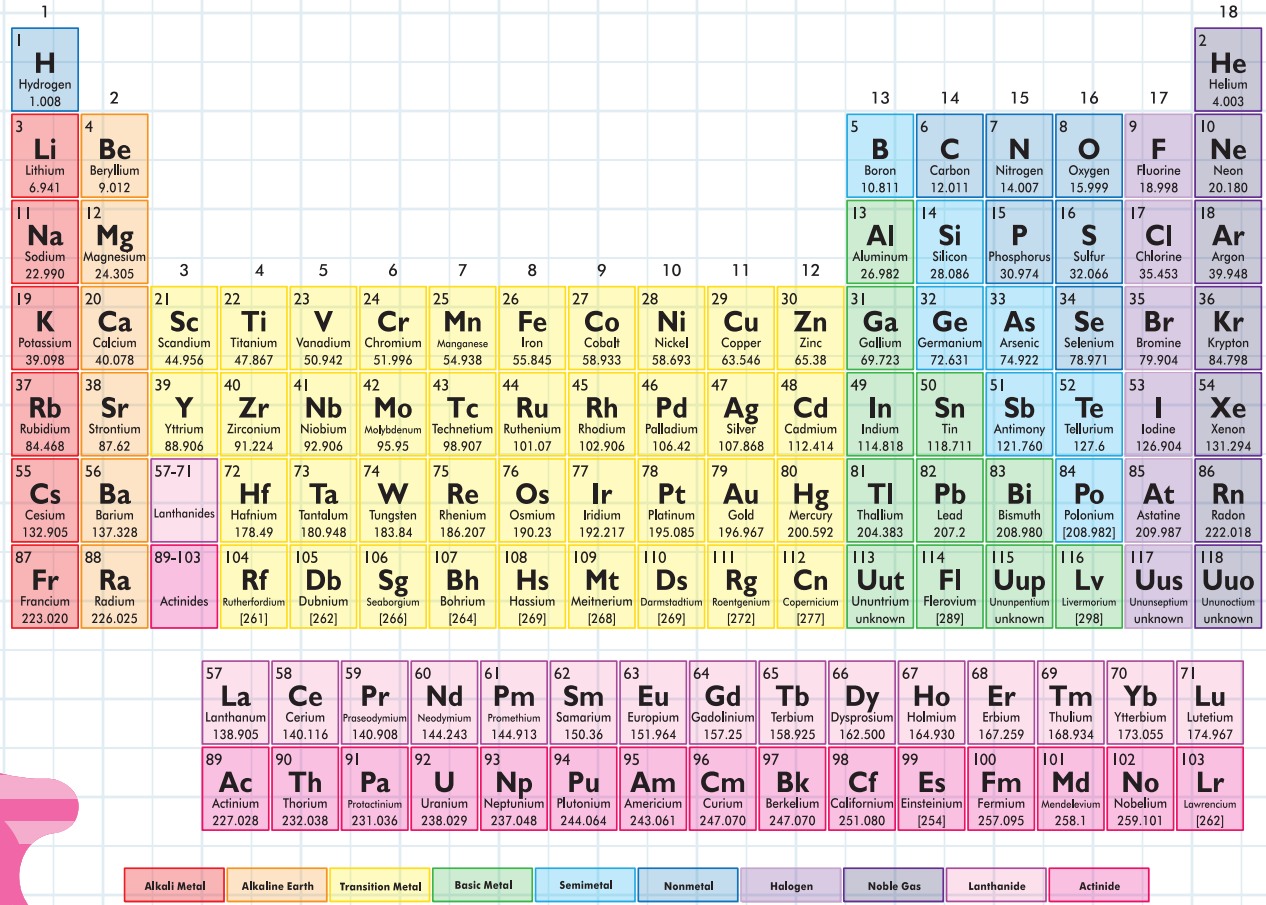
Explanation

This will work as a natural air freshener as the sticks absorb the fragranced oil and the scent is then naturally dispersed into the air through evaporation.





Periodic Table



FUN FACTS

Perfumes are a complex mixture of organic compounds, alcohol and water. The organic compounds are called fragrances. Fragrances are combined to create perfumes which are used to provide long-lasting scents.

It is almost certain that the origin of perfume is connected to religion. It was used as a purification of the soul and an offering to the gods as a sign of devotion. The first references to perfume were found on alabaster vases from ancient Egyptian times, which date back to the 3000 BCE.

The culture of perfume in ancient Egypt was so deeply rooted that there were perfume laboratories in the temples, just for the preparation of fragrances used during rituals.

The **egyptians** had a very profound knowledge about trees and plants, so they could use various plants as ingredients for their perfumes. E.g. cinnamon, cedar oil, myrrh and resins of different plants. They used them to perfume their clothes or as scented bath oils to moisturise their skin.

Romans were the first civilisation truly concerned about personal hygiene, producing perfumes for every social class. They were so devoted to the art of perfumes that many body oils, incenses and colognes were produced during that period.

During the 14th century, growing **flowers** for perfume essences grew into a major industry especially in France. Consequently, France became the centre of perfume research and perfume trade.

The first perfume with its own formula was created in 1370 and was made for the Hungarian Queen Elizabeth. It was known as l'eau de "la reine de Hongrie" and it was a concentration of oils and essences.

EXPERIMAKE TOKEN

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.

Rose and Jasmine are considered the most used fragrances in perfumes. A perfume can stay on our skin for four hours maximum.

The smell of a perfume can vary on different people because the pH, greasiness and sweat of our skin can influence the smell.

Perfumes are made up of different notes. There are three types of notes: top notes (head notes), middle notes (heart notes) and base notes (deep notes). The time of evaporation increases with every note.

The top notes are the first ones we smell when we apply the perfume. Top notes evaporate very quickly and that's why we can smell them only for a few minutes. When the top notes have evaporated, we start to smell the middle notes of the perfume. The middle notes define the perfumes' character as the "soul" of the fragrance.

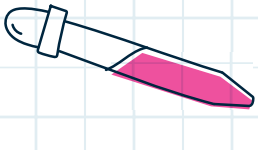
FUN FACTS

The base notes are the ones which last the longest. Their smell sticks to our skin allowing people around us to smell these notes. The most commonly used essences for base notes are musk, oakmoss, sandalwood or vanilla.

Perfumes are classified based on the concentration levels of essences.

parfum - when the essence concentration is between 20% and 40%
eau de parfum - when the essence concentration is between 12% and 18%
eau de toilette - when the essence concentration is between 8% and 14%
eau de cologne - this contains the least amount of essence, with a concentration between 3% and 7%

Tip: Why don't you check the class of perfumes you have at home?



Please ask your parent or guardian to complete:

Name _____ **Age** _____

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

319-10108-N

Also Available...

*Subject to Availability

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