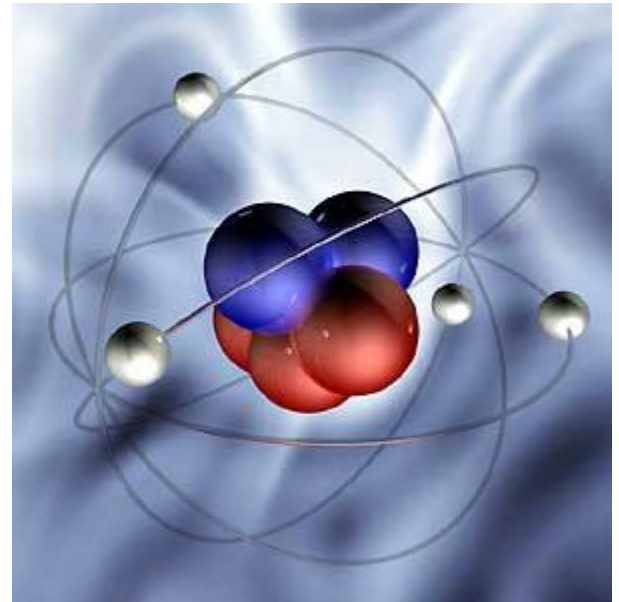


# **CHEMISTRY IN OUR LIFE**

**Done by 201-R group**

# The Chemical Universe

- Chemistry is the study of atoms
- Atoms are the building blocks of nature
- Chemical Science is shaping our future



# Chemistry of Flowers

## Smell a Flower

- The Fragrance is Chemistry

## See a Flower

- The Colours are Chemistry

## Touch a Flower

- The Structure is Chemistry



# **Chemistry in the Home**

- Everything in your home is Chemistry
- Shower Gel, Wallpaper, Baked Beans...
- Teflon<sup>TM</sup> was discovered by accident
- Energy efficient, colour changing buildings

# Paints



## Pigment

- Particles to add colour

## Matte Paints

- Particles to add texture

## Non-Drip Paints

- Polymers to change consistency

# **Improved Performance**

- Our leisure time has been changed by Chemical Science
- Computer parts, sports equipment
- Carbon fibre is 3 times stronger than steel
- Better flat screen displays

# Flat Screen Displays

## The past

- Cathode ray tubes

## The present

- Liquid Crystals
- Plasma displays

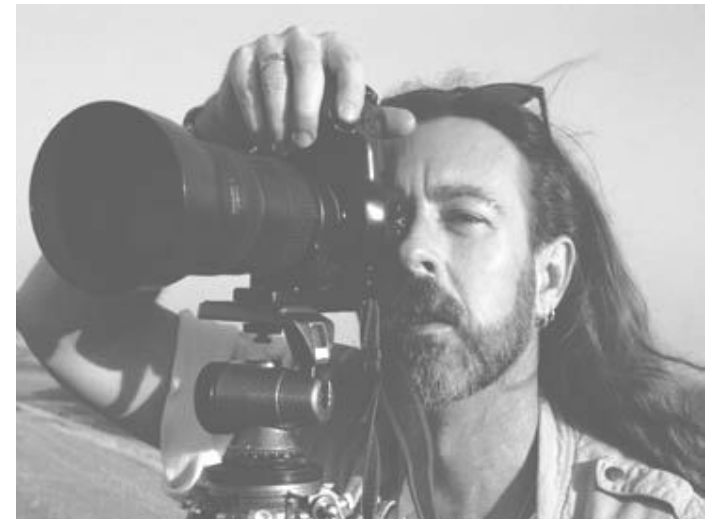
## The future

- Light emitting polymers
- Electronic Ink



# Photography

- Chemistry makes the film
- Chemistry develops the image
- Chemistry prints the picture





# Cooking is Chemistry

- Chemical changes are responsible for changes in flavour and texture
- Chemistry keeps food fresh
- Most E-numbers are naturally occurring
- Healthy Cream Cakes!

## Ice Cream

- Complex Structure
  - Ice
  - Fat
  - Air
  - Sugar
- Stability



# **Energy is Chemistry**

- Chemistry can be used to store energy
- Batteries are chemistry
- The Space Shuttle's solid rockets burn 10 tonnes of fuel per second
- Cleaner sources of energy



# Petrol

- Drilling Fluids
- Refining
- Fuel Additives
- Catalytic Converters



# **Green Chemistry**

- Chemical science that is environmentally friendly
- More efficient production of the chemicals we need
- 53% of people recycle paper - only 23% recycle plastic
- Cars powered by hydrogen

# Organic Farming

- Use of *natural* pesticides and fertilisers
- Chemists isolate, develop and make these
- Even organic pesticides are chemicals!



# **Fashion**

- Looking good is down to chemical science
- 2-in-1 shampoos, non-iron shirts
- Toothpaste and paint have many similar ingredients
- Self-cleaning clothes

# Synthetic Dyes

- Desired Colour
- Dye fastness
- Novel properties





# Healthier Lives

The background of the slide features a close-up photograph of several light pink, oval-shaped capsules scattered across a textured blue surface. The capsules are arranged in a way that creates a sense of depth, with some appearing closer and larger than others. The lighting is soft, highlighting the smooth texture of the capsules.

- All medicines use chemical science
- Clean water through chemical science
- We live twice as long now as 100 years ago
- Cures for Cancer, AIDS...



# Asthma Drugs

## Container

- Plastic shell

## Active Ingredient

- Pharmaceutical

## Spray Formation

- Aerosol



# Biochemistry

- Human body is made up of 100 trillion cells
- Adult body is 50-65% water
- Carbon is key element in the body
- 22 amino acid structures

# **Body chemistry**

- Proteins-digest foods, fight infections, build organs, move muscles
- Enzymes are proteins
- Blood and oxygen
- DNA-genetic molecule

**THANK YOU FOR YOUR ATTENTION!**