Science Learning Journey

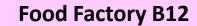


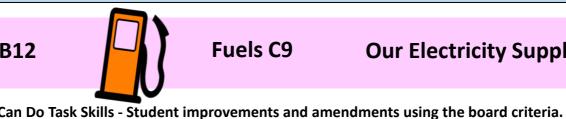
Problem Solving; Decision Making; Safety; Planning; Communication; Interpretation; Questioning; Confidence; Curiosity

Intent: At CRS, our aim is to provide a curriculum which is challenging, engaging and enjoyable, fostering a desire to learn. Our rigorous safety procedures and scientific methods provide an environment where the students feel comfortable to challenge themselves and stretch their skills, knowledge and confidence. Our science units of work match the National Curriculum students' key stage as far as possible and are taught in ways appropriate to the students' abilities. Where areas of knowledge and skills are identified as being weaker, material has been selected from earlier key stages to enable students to progress and demonstrate achievement.

Implementation: In KS3, students study Biology, Chemistry and Physics. They improve their scientific enquiry through investigation. From Y9, our students study OCR topics-biology topics include the human body, plants and the environment. In chemistry, topics include chemical reactions, elements mixtures and compounds and the Earth and atmosphere. In Physics topics include forces, electricity, magnetism and light. Students improve their scientific enquiry through investigation and exploration.

Impact: At CRS, students participate in all science lessons with excitement, wonder and awe. Students know how to work safely in the lab and are able to transfer these skills to other areas of the curriculum and to life beyond school. Students' progression, knowledge and skills in science are assessed using the school's CREATE system and Go4schools.





Fuels C9

Our Electricity Supply P7

My Genes B11

Year

11

Year

10

Coursework Draft 3 – Final student improvements if required.

Nuclear Power P6

Gasping for Breath B5

Driving Along P10

Cooking and Chemistry C7

Heavy Metals C8



Casualty B6 Are you overreacting C10 Fly me to the Moon P11

Extinction B10

CSI Plus C12 **Final Frontiers P12**

Coursework Draft 2 - Student improvements and amendments using the board marking criteria.



Coursework Draft 1 - Students complete the coursework using the board

criteria.
Fooling your Senses B4 **Novel Materials C5 Alternative Energy P5**

Control Systems B3

A Place for Everything and Everything in its place C3 Hot stuff P4



Creepy Crawlies B9

You only have one life-look after it B7 Clean Air and Water C4 **Medical rays P3**

Body Wars B8 Sorting Out C6 Attractive Forces P8

How fast, how slow C1 **Pushes and Pulls P9**



Explaining Chemical

Changes C4

At YEAR 9, some students will begin an OCR qualification which is run over three years. Students can achieve a Level 1,2 or 3. (Bronze, Silver or Gold) The course will Include short topic tests, practical skills and coursework.



Dead or Alive (Cells) B1 **Physical or Chemical Change C1 Getting the message P1**



Acids/Alkalis Indicators

Neutralisation

Combustion

Babies (Reproduction) B2

Acids and Alkalis C2

Full Spectrum P2

Statics/Electrostatics

Exploring Contact and Non-Contact Forces P3 Magnetic Fields

Magnetism and **Electricity P4**

Magnetic **Fields**





Circuits

Year

ight energy.

Transfer

Particles

Photosynthesis

Getting the Energy

Explaining Physical Changes C3

Looking at Plants and **Ecosystems B4**

your Body Needs B3 **Body Systems**

Aerobic/Anaerobic Echolocation, Ultrasound

States of Matter Diffusion

Water Cycle

Elements and

Reactions C2

Magnetism

Ecology Movement

Medical rays

Materials

PH Scale

Forces and their

Affects P1

Energy Transfers

Lab safety

Pollution

Cells

Balanced/unbalanced

and Sounds P2 Codes

Morse code

Materials

Gas Exchange

States of mat

forces

Body Parts Grouping



Eating, Drinking and Breathing B2

Exercise

Reproduction Energy Requirements Systems **Food Groups**

Ecosystems Food chains

Living Things B1

Classification Processes Adaptions **Functions**

Year Living/non-

living Beginning our

Science Journey

Every Child, Every Chance, Every Day