

# Lesson Plan Framework

## UNIT J Sub Unit J4

#### Electromagnets

Group: 2C Location: Physics Lab Date/Time: 14h30 to 15h40 / 29<sup>th</sup> November

#### 1. Learning Objectives:

- Know that a current flowing in a wire makes a magnetic field.
- Describe the shape of the magnetic field around a coil of wire.
- Describe some uses of electromagnets.

## 2. Learning Outcomes:

- Describe the shape of the magnetic field around a current-carrying straight coil solenoid
- Make an electromagnet
- Give examples of the use of electromagnets to include sorting scrap, trains, electric locks, etc.
- Identify factors affecting the strength of electromagnets.

#### 3. National Curriculum References:

- KS3, Unit J(Magnets and Electromagnets)/J4(Electromagnets) of the 2<sup>nd</sup> catalyst text book.

#### 4. Links to other areas:

- Children with be able to learn the lesson topic using some hands on groups of work, visual aids and different learning styles.



## 5. Previous Assessment details informing this lesson:

- Review some misconceptions that children may have about the topic.
- Use of activities to capture interest (e.g. Pupils will watch a short video about how can electricity make an electromagnet).

#### 6. Differentiation:

- Particular attention to dyslexic and difficulties learning pupils, during the lesson. Verify at the end of lesson the work developed and complete if necessary.
- If necessary repeat all the lesson process to pupils with difficulties as a way to follow their progress in the classroom.

## 7. Health and Safety:

- Practical Activity safety for pupils, but check risk assessment attached.