**Science**

At St. Joseph’s, our philosophy is to run engaging and hands-on science lessons. The activities are teacher-led; there are plenty of opportunities for the students to suggest different experimental methods. This terms’ Science focus is on the Physical Sciences. Our science programme is designed around the Australian National Curriculum. with activities closely aligned to science understandings as outlined in the Australian Curriculum for each year level.

**Physical Sciences**

**Year Kindy Per-primary**

* Investigate the way objects move depending on a variety of factors, including their size and shape.
* Explore and make observations by using their senses.

**Year 1**

* Understand that light and sound are produced by a range of sources and can be sensed.
* Use a range of methods to sort information, including drawings and provide tables.

**Year 2**

* Understand how a push or a pull affects how an object moves or changes shape.
* Respond to and pose questions and make predictions.

**Year 3**

Heat can be produced in many ways and can move from one object to another

* describing how heat can be produced such as through friction or motion, electricity or

chemically (burning)

* identifying changes that occur in everyday situations due to heating and cooling
* exploring how heat can be transferred through conduction
* recognising that we can feel heat and measure its effects using a thermometer.

**Year 4**

Forces can be exerted by one object on another through direct contact or from a distance

* observing qualitatively how speed is affected by the size of a force
* exploring how non-contact forces are similar to contact forces in terms of objects pushing
* and pulling another object
* comparing and contrasting the effect of friction on different surfaces, such as tyres and
* shoes on a range of surfaces
* investigating the effect of forces on the behaviour of an object through actions such as
* throwing, dropping, bouncing and rolling
* exploring the forces of attraction and repulsion between magnets

**Year 5**

Light from a source forms shadows can be absorbed, reflected and refracted

* Drawing simple labelled ray diagrams to show the paths of light from a source to our eyes
* Comparing shadows from point and extended light sources such as torches and fluorescent
* tubes
* Classifying materials as transparent, opaque or translucent based on whether light passes
* through them or is absorbed
* Recognising that the colour of an object depends on the properties of the object and the
* colour of the light source
* Exploring the use of mirrors to demonstrate the reflection of light

**Year 6**

Electrical circuits provide a means of transferring and transforming electricity

* Recognising the need for a complete circuit to allow the flow of electricity
* Investigating different electrical conductors and insulators
* Exploring the features of electrical devices such as switches and light globes
* Energy from a variety of sources can be used to generate electricity
* Investigating how moving air and water can turn turbines to generate electricity
* Investigating the use of solar panels