

# SCIENCE – GRADE 10

## **CONSTEL: PHYSICS IN EVERYDAY LIFE**

The show facilitates the learning of Physics and the development of schemes by linking concepts and principles with daily life events and experiences. It features lectures, laboratory experiments, and demonstrations. The episodes are good supplementary materials for the study of Physics.

**Medium: English**

## **Learning Competency: Energy – Static Electricity ELECTRICITY**

*This episode discusses the motion of an atomic particle called electron. Discover the science concepts behind that form of energy which provides us with conveniences and comforts in our daily lives. This is called electrical energy.*

Nov 3(Thu)	3:00pm - 3:20pm
Nov 4(Fri)	10:40am - 11:00am
Nov 10(Thu)	3:00pm - 3:20pm
Nov 11(Fri)	10:40am - 11:00am

## **Learning Competency: Energy – Static Electricity PRACTICAL ELECTRICITY**

*This episode teaches concepts in electrical energy and ways in saving electrical energy.*

Nov 17(Thu)	3:00pm - 3:20pm
Nov 18(Fri)	10:40am - 11:00am
Nov 24(Thu)	3:00pm - 3:20pm
Nov 25(Fri)	10:40am - 11:00am

## **Learning Competency: Energy – Static Electricity ELECTRICITY HAZARDS AND SAFETY**

*This episode talks about electrical hazards and safety. Electricity brings countless benefits into our lives but it can also bring damages if we don't know how to use it properly.*

Dec 1(Thu)	3:00pm - 3:20pm
Dec 2(Fri)	10:40am - 11:00am
Dec 8(Thu)	3:00pm - 3:20pm
Dec 9(Fri)	10:40am - 11:00am

## **Learning Competency: Energy – Static Electricity, Magnetism CURRENT CARRYING WIRES**

*This episode focuses on magnetism and its relationship to electricity, including current carrying wires.*

Dec 15(Thu) 3:00pm - 3:20pm

Dec 16(Fri) 10:40am - 11:00am

**Learning Competency: Energy – Electromagnets**

**CURRENT FROM MAGNETS**

*This episode focuses on the current of magnets. Experiments and activities were done to demonstrate how magnets produce current. There are three factors which affect the amount of induced current in a conductor: velocity, strength of the magnetic field, and the number of loops of wire.*

Dec 22(Thu) 3:00pm - 3:20pm

Dec 23(Fri) 10:40am - 11:00am

Jan 5(Thu) 3:00pm - 3:20pm

Jan 6(Fri) 10:40am - 11:00am

**Learning Competency: Energy – Electromagnets**

**EM SWINGS AND MOTORS**

*This episode focuses on EM swings and motors. It will answer the question “Is current-carrying wires affected by an external magnetic field light that of a magnet?”*

Jan 12(Thu) 3:00pm - 3:20pm

Jan 13(Fri) 10:40am - 11:00am

**Learning Competency: Energy – Electromagnets**

**CURRENT FROM MAGNETS**

*This episode focuses on the current of magnets. Experiments and activities were done to demonstrate how magnets produce current. It will be observed that there are three factors which affect the amount of induced current in a conductor and these are velocity, strength of the magnetic field, and the number of loops of wire.*

Jan 19(Thu) 3:00pm - 3:20pm

Jan 20(Fri) 10:40am - 11:00am

Jan 26(Thu) 3:00pm - 3:20pm

Jan 27(Fri) 10:40am - 11:00am

**Learning Competency: Energy – Current Electricity**

**POWER GENERATION AND TRANSMISSION**

*The episode provides viewers a review of the existing power plants in the Philippines. It also provides alternative energy sources that can be developed in the future.*

Feb 2(Thu) 3:00pm - 3:20pm

Feb 3(Fri) 10:40am - 11:00am

Feb 9(Thu) 3:00pm - 3:20pm

Feb 10(Fri) 10:40am - 11:00am

**Learning Competency: Energy – Waves**

**WAVES: ENERGY CARRIERS**

*This episode talks about mechanical waves or waves which need a medium to propagate. It also includes introduction to waves, the carriers of energy.*

Feb 16(Thu) 3:00pm - 3:20pm

Feb 17(Fri) 10:40am - 11:00am

Feb 23(Thu) 3:00pm - 3:20pm

Feb 24(Fri) 10:40am - 11:00am

**Learning Competency: Energy – Waves**

**PROPERTIES OF WAVES**

*In this episode, experiments were done to understand how waves behave when they encounter a barrier. It also includes properties of waves, reflection, refraction, diffraction and interference.*

Mar 2(Thu) 3:00pm - 3:20pm

Mar 3(Fri) 10:40am - 11:00am

**Learning Competency: Energy – Light Waves and Color**

**MUSICAL SOUND**

*This episode will focus on the “pleasing” kind of sound. This is the kind of sound that we all want to hear, like the musical sounds.*

Mar 9(Thu) 3:00pm - 3:20pm

Mar 10(Fri) 10:40am - 11:00am

**Learning Competency: Energy – Light Waves and Color**

**LIGHT: AN EM WAVE**

*This episode discusses light in the form of a wave. This includes a discussion on light properties, and on what kind of wave is light.*

Mar 16(Thu) 3:00pm - 3:20pm

Mar 17(Fri) 10:40am - 11:00am

**Learning Competency: Energy – Light Waves and Color**

**LIGHT, SOUND, AND COLOR**

*This episode talks about light waves and some of its properties like reflection and dispersion. It will also focus on how light enables the human eye to see objects and images in mirrors, and how it allows us to distinguish colors.*

Mar 23(Thu) 3:00pm - 3:20pm

Mar 24(Fri) 10:40am - 11:00am

**Learning Competency: Energy – Light Waves and Color**

**TELECOMMUNICATIONS**

*This episode focuses on the transformation of energy seen in inventions and discoveries that revolutionized our means of communication.*

Mar 30(Thu)	3:00pm - 3:20pm
Mar 31(Fri)	10:40am - 11:00am
Apr 6(Thu)	3:00pm - 3:20pm
Apr 7(Fri)	10:40am - 11:00am