Grade 5 Science Standards and Benchmarks

Standard 3: Students will understand the composition and structure of the universe and the Earth's place in it

Level II 3-5
Benchmarks:

3.1 Knows that night and day are caused by the Earth's rotation on its axis

3.2 Knows that the Earth is one of several planets that orbit the Sun and that the Moon orbits the Earth

3.3 Knows that the patterns of stars in the sky stay the same, although they appear to slowly move from east to west across the sky nightly and different stars can be seen in different seasons

3.4 Knows that planets look like stars, but over time they appear to wander among the constellations

3.5 Knows that astronomical objects in space are massive in size and are separated from one another by vast distances (e.g., many stars are more massive than our Sun but so distant they look like points of light)

3.6 Knows that telescopes magnify distant objects in the sky (e.g., the Moon, planets) and dramatically increase the number of stars we can see

Standard 6: Students will understand relationships among organisms and their physical

Benchmarks:

6.5 Knows that all organisms (including humans) cause changes in their environments, and these changes can be beneficial or detrimental**

** cross-curricular with Social Studies

Standard 9: Students will understand the sources and properties of energy

Benchmarks:

9.1 Knows that electricity in circuits can produce light, heat, sound, and magnetic effects

9.2 Knows that heat can move from one object to another by conduction and that some materials conduct heat better than others

9.3 Knows the organization of a simple electrical circuit (e.g., battery or generator, wire, a complete loop through which the electrical current can pass)

Standard 10: Students will understand forces and motion
Benchmarks:

10.2 Knows that the Earth's gravity pulls any object toward it without touching it

10.4 Knows that an object's motion can be described by tracing and measuring its position over time

10.6 Knows the relationship between the strength of a force and its effect on an object (e.g., the greater the force, the greater the change in motion; the more massive the object, the smaller the effect of a given force)

Standard 11: Students will understand the nature of scientific knowledge
Benchmarks:

11.3 Knows that scientists make the results of their investigations public; they describe the investigations in ways that enable others to repeat the investigations

11.4 Knows that scientists review and ask questions about the results of other scientists' work

Standard 12: Students will understand the nature of scientific inquiry
Benchmarks:

12.1 Knows that scientific investigations involve asking and answering a question and comparing the answer to what scientists already know about the world

Standard 13: Students will understand the scientific enterprise
Benchmarks:

13.1 Knows that people of all ages, backgrounds, and groups have made contributions to science and technology throughout history

Grade 5 Science Standards and Benchmarks

13.2 Knows that although people using scientific inquiry have learned much about the objects, events, and phenomena in nature, science is an ongoing process and will never be finished

Science Units in ISKL Melawati

Grade	Earth and Space Sciences	Life Sciences	Physical Sciences	
Prep R & J				**SENSES**
Prep S		Characteristics and needs of Living Things	Water	
Grade 1	Weather	Organisms	Solids and liquids	
Grade 2	SOILS	Life cycle of the butterfly	Changes	
Grade 3	Land and water	Plant growth		
Grade 4	Earth Structure		Motion and design	
Grade 5	Earth in Space		Electrical Circuits	