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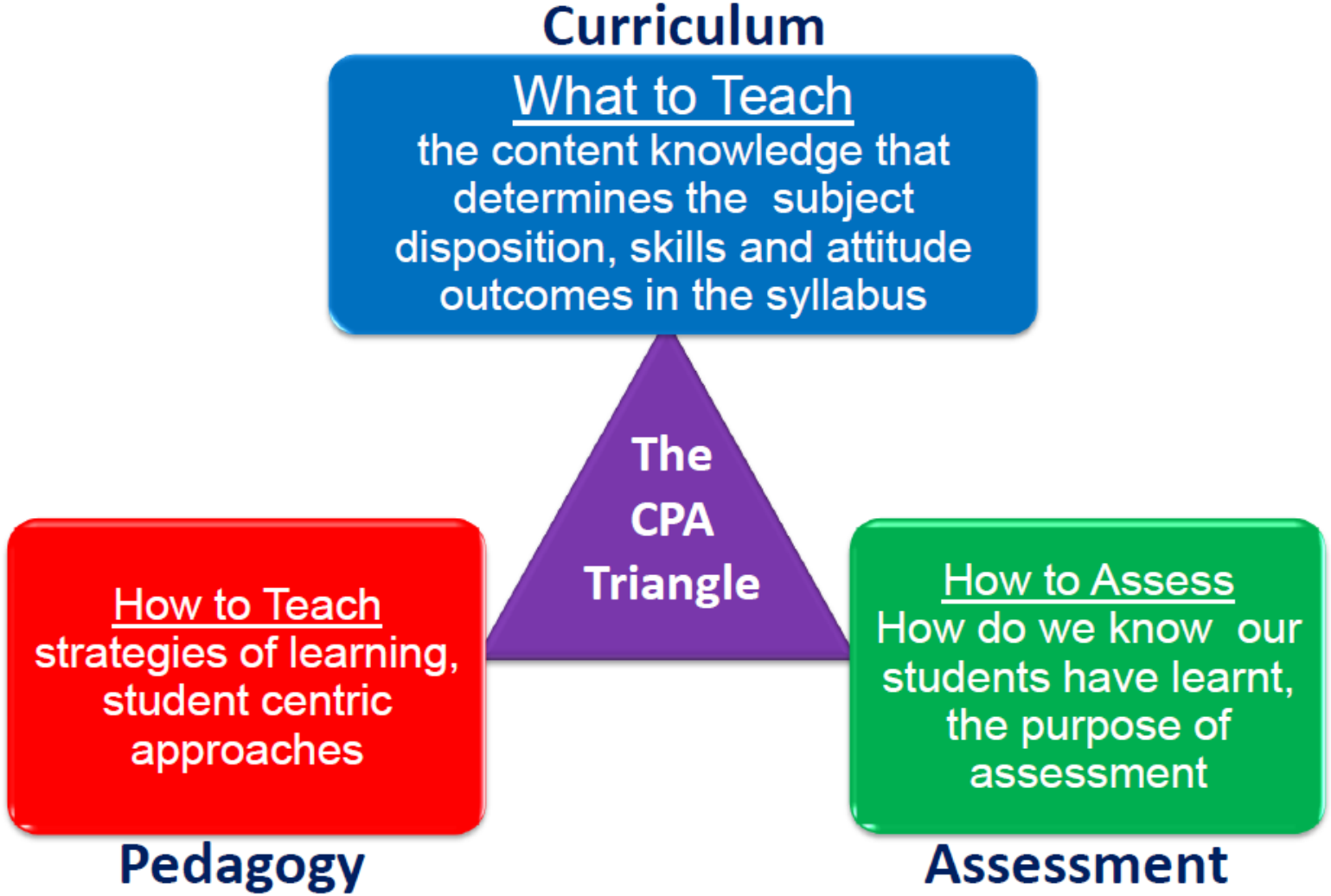
Boosting your child's confidence in Science

Key take-away from today session

- Understanding Singapore's Science Curriculum
- Using the *7 Habits of Happy Kids* to help your child in self-management
- TGE's Explore · Discover · Create



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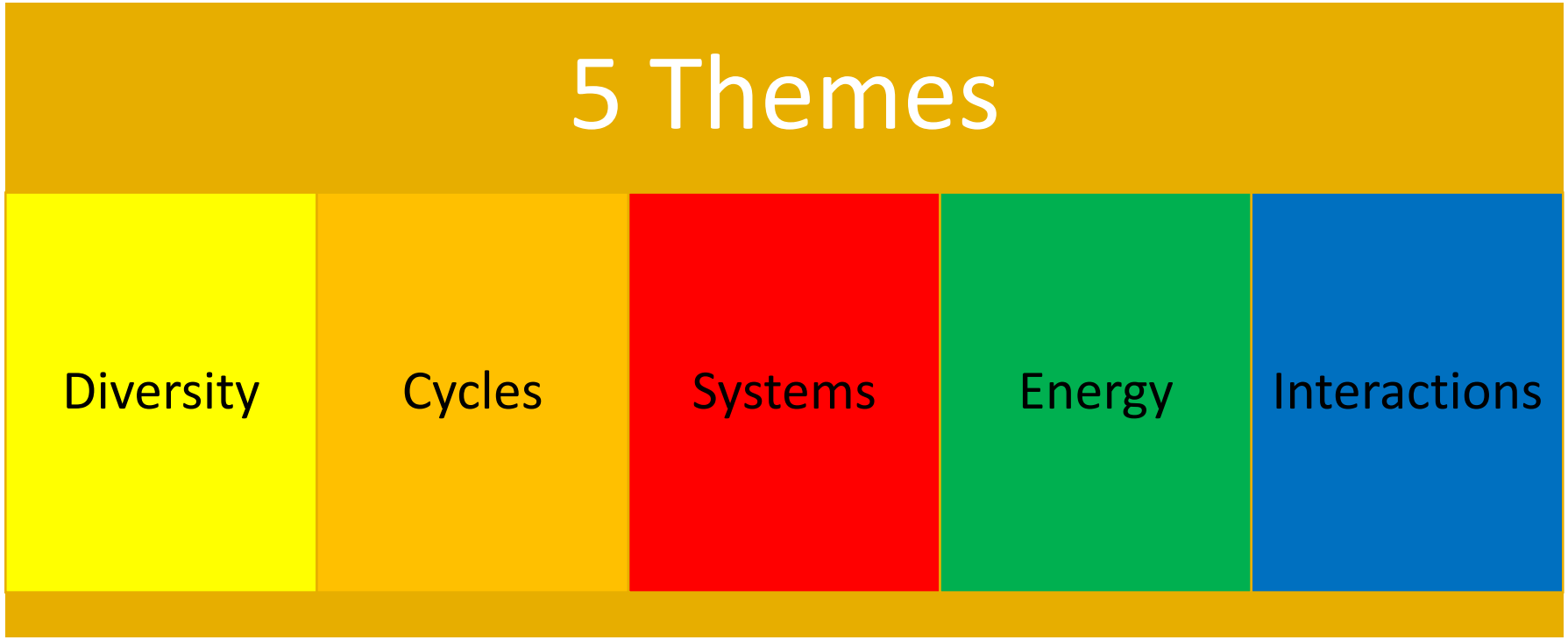
2014 Science Syllabus



Covered over 4 years

*Lower Bock (P3 – P4)

**Upper Block (P5 – P6)

Process Skills

Observing	This is the skill of using our senses to gather information about objects or events (includes use of instruments)
Comparing	Identifying similarities and differences between two or more objects, concepts or processes
Classifying	Grouping objects or events based on common characteristics

Process Skills

Inferring	Interpret and explain observations or pieces of data or information
Analysing	Identify the parts of objects, information or processes, patterns and relationships between these parts
Communicating	Transmitting and receiving information presented in various forms – verbal, pictorial, tabular or graphical

Process Skills

Predicting	Assess the likelihood of an outcome based on prior knowledge of how things usually turn out
Generating Possibilities	Exploring all the alternatives, possibilities and choices beyond the obvious or preferred
Evaluating	Assessing the reasonableness, accuracy and quality of information, processes and ideas. Includes assessing quality and feasibility of objects

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Process Skills

Using apparatus and equipment	Knowing the functions and limitations of various apparatus and developing the ability to select and handle them appropriately for various tasks
Formulating Hypothesis	Making a general explanation for a related set of observations or events (extension of inferring)

Syllabus Requirement		
Themes	**Lower Block (Primary 3 & 4)**	**Upper Block (Primary 5 & 6)**
Diversity	• Diversity of living / non-living things (General characteristics and classification) • Diversity of materials	
Cycles	• Cycles in plants and animals (Life cycles) • Cycles in matter and water (Matter)	• Cycles in plants and animals (Reproduction) • Cycles in matter and water (Water)
Systems	• Plant system (Plant parts and functions) • Human system (Digestive system)	• Plant system (Respiratory and circulatory systems) • Human system (Respiratory and circulatory system)s • Cell system • Electrical system
Interactions	• Interaction of forces (Magnets)	• Interaction o f forces (Frictional force, gravitational force, force in springs) • Interaction within the environment
Energy	• Energy forms and uses (Light and heat)	• Energy forms and uses (Photosynthesis) • Energy conversion

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Relating *scientific skills and processes* to *essential features of inquiry*

	Engaging with an event, phenomenon or problem through:	Collecting and presenting evidence through:	Reasoning; Making meaning of information and evidence through:
Skills	• Formulating hypothesis • Generating possibilities • Predicting	• Observing • Using apparatus and equipment	• Comparing • Classifying • Inferring • Analysing • Evaluating
	Communicating		
Processes	Creative problem-solving, Investigation and Decision-making		
Essential Features of Inquiry	Question	Evidence	Explain Connect
	Communication		

2014 Science Syllabus

Syllabus	Year of Implementation			
	2014	2015	2016	2017
Primary Science Standard	P3	P4	P5	P6
Primary Science Foundation	-	-	P5	P6

Changes to the 2014 Syllabus

Themes / Topics	Updated / Removed Learning Outcomes
Diversity of Living and Non-living Things	Recognise some broad groups of living things – animals (**amphibians**, birds, fish, insects, mammals, **reptiles**)
Diversity of Materials	Compare physical properties of materials based on: ~~hardness~~ strength, flexibility, ability to float/sink in water, **waterproof**, **transparency**
Cycle of Plants and Animals	Observe and compare the life cycles of animals over a period of time (beetle, butterfly, chicken, cockroach, frog, grasshopper, **mosquito**)
Electrical System	~~Recognise that good conductors of electricity are generally conductors of heat~~
Energy Forms and Uses	~~Recognise that energy is required to make things work or move~~ ~~Show an understanding that food produced by plants becomes the source of energy for animals~~

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ASSESSMENT OBJECTIVES

The assessment objectives are as follows:

I. Knowledge with Understanding

Students should be able to demonstrate knowledge and understanding of scientific facts, concepts and principles.

II. Application of Knowledge and Process Skills

Students should be able to

a. apply scientific facts, concepts and principles to new situations.

b. interpret information (including pictorial, tabular and graphical) and investigate using one or a combination of the following process skills:

- Inferring
- Predicting
- Analysing
- Evaluating
- Generating possibilities
- Formulating hypothesis
- Communicating

How are our children assessed?

Source: http://www.seab.gov.sg/pages/nationalExaminations/PSLE/syllabus.asp

Some examples

The 7 Habit of Happy Children

Habit 1 — Be Proactive

I am a responsible person. I take initiative. I choose my actions, attitudes, and moods. I do not blame others for my wrong actions. I do the right thing without being asked, even when no one is looking.

Habit 2 — Begin with the End in Mind

I plan ahead and set goals. I do things that have meaning and make a difference. I am an important part of my team. I look for ways to be a good camper.

The 7 Habit of Happy Children

Habit 3 — Put First Things First

I spend my time on things that are most important. This means I say no to things I know I should not do. I set priorities, make a schedule, and follow my plan. I am disciplined and organized.

Habit 4 — Think Win-Win

I balance courage for getting what I want with consideration for what others want. I make deposits in others' Emotional Bank Accounts. When conflicts arise, I look for third alternatives.

The 7 Habit of Happy Children

Habit 5 — Seek First to Understand, then to Be Understood

I listen to other people's ideas and feelings. I try to see things from their viewpoints. I listen to others without interrupting. I am confident in voicing my ideas. I look people in the eyes when talking.

Habit 6 — Synergize

I value other people's strengths and learn from them. I get along well with others, even people who are different than me. I work well in teams. I seek out other people's ideas to solve problems because I know that by teaming with others we can create better solutions than anyone of us can alone. I am humble.

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The 7 Habit of Happy Children

Habit 7 — Sharpen The Saw

Balance feels Best!

I take care of my body by eating right, exercising and getting sleep. I spend time with family and friends. I learn in lots of ways and lots of places, not just in school. I find meaningful ways to help others.

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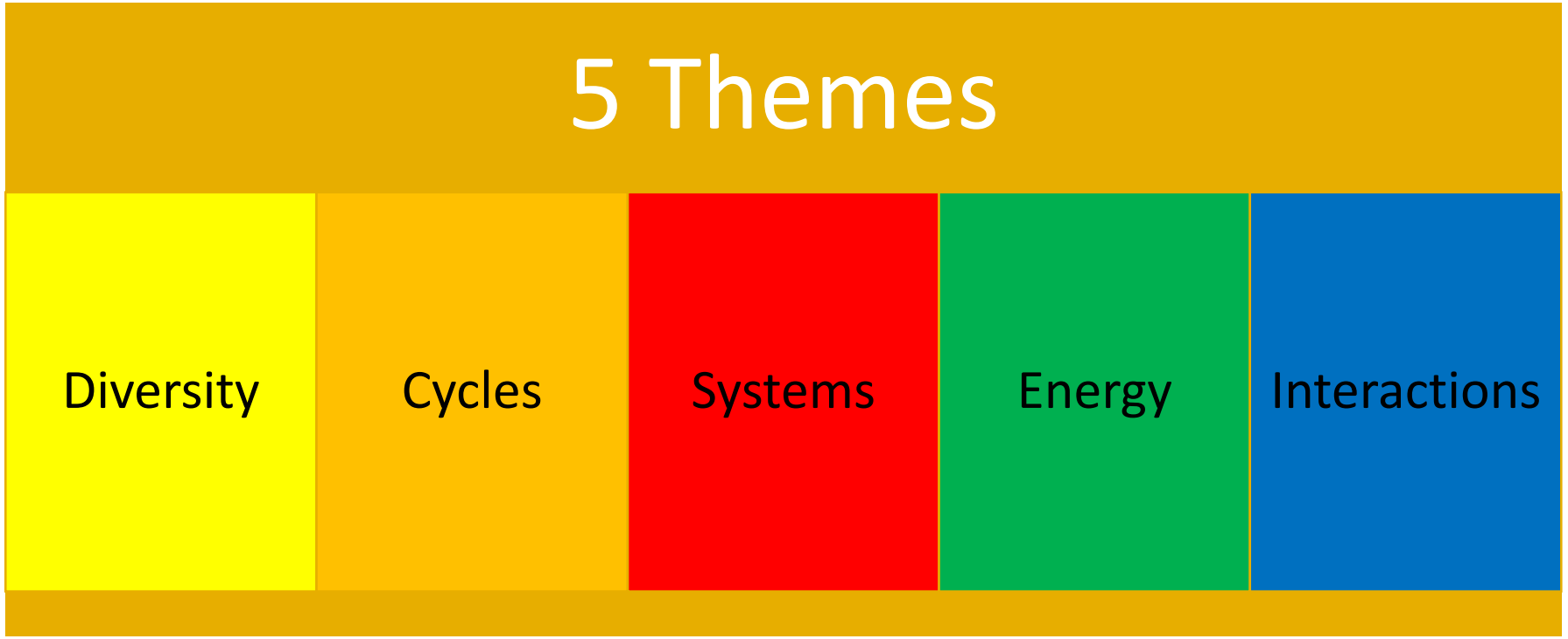
What do we do differently at TGE?



Cover over 6 years

Lower Block (P1 – P2)
Middle Block (P3 – P4)
Upper Block (P5 – P6)

http://thegreenexplorers.weebly.com/

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