

## Curriculum at CMR National Public School

CMR National Public School is proud of a host of features that make it different, and a foundational feature which sets us apart, is our curriculum. With the world shrinking into a global village, we felt an increasing need to set pace with standards of learning which facilitate a universal understanding of each subject.

After two years of extensive research, development, and training led under the prudential supervision of the Vice President of the CMR Group of Institutions, Ms. Tristha Ramamurthy, we are pleased to see our efforts being translated into classrooms in real time, this year onwards.

In the teaching methodology adopted at the school, we have adjusted our curriculum to ensure that:-

- ★ Our children arrive at an understanding of a concept/idea by themselves, instead of offering a said understanding to them, and evaluating them on how well they remember it.
- ★ We do this by including a number of activities (group/individual), book readings, video screenings etc.

**Our aim is to induce them to 'think' and arrive at an understanding of the world around them, through this creative process of 'doing.'**

This not only **generates interest**, thereby resulting in a **greater engagement** on their part; but also allows them to explore their world, outside of what would otherwise be considered 'non-essential' in terms of assessment. For instance, reading novels, books, stories, watching movies - are all activities that have been included within the scope of their learning. Hence, they don't need time separate from their regular school work to **develop a taste for recreational activities**. It helps create a **culture of curiosity** and relate these activities to what they are being taught in school.

### Structure

In an attempt to shift focus from rote learning, and a mere supply of information to the children, we have revised the standards of learning followed. For this, several international standards or benchmarks were researched to understand the metrics that are followed by schools abroad. A combination of the best practices have been studied and applied to our lesson plans – not to alter the content being taught entirely, but rather the *way the content is delivered*.

The elimination of textbooks is a consequence of adopting international standards of learning and teaching, and integrating the best practices from those, with our central board standard.

#### WHAT ARE EDUCATION STANDARDS?

Education standards are the benchmarks – which broadly specifies the topics with which a child must be fluent with, by a particular age. Keeping standards high ensures a stronger grasp of the subject. **CBSE** – is one such standard followed by India. The CBSE curriculum outlines local standards that must be met by CBSE schools. Similarly, there are international standards (Such as Akara, Singaporean, NGSS, Cambridge, Ontario) that provide a global curriculum which pitches certain topics at a higher level (or with higher standards of learning).

Our lesson plans are structured to ensure that at any given point, the teacher knows exactly **WHERE** her students are, and where they are going.

W	How will you help your students to know <b>WHERE</b> they are headed, <b>WHY</b> they are going there, and <b>WHAT WAYS</b> they will be evaluated along the way?
H	How will you <b>HOOK</b> and engage student interest through a thought provoking experience at the beginning?
E1	How will you <b>EQUIP</b> students, help them <b>EXPERIENCE</b> the key ideas and <b>EXPLORE</b> the issue?
R	How will you provide opportunities for students to <b>REFLECT</b> , <b>RETHINK</b> and <b>REVISE</b> their understandings and work?
E2	How will you help your students <b>EXPRESS</b> their understandings and <b>ENGAGE</b> in meaningful self-EVALUATION?

## Sample Unit

Let's take a look at Grade 1 - Unit 1 Science.

This unit is divided into three parts or lessons;-

1.0 - Same and Different - This lesson teaches students how to observe and differentiate the properties of an object, they learn to classify these based on their properties, working out the similarities and differences. 'Same & Different' becomes the underlying theme to every lesson activity the students participate in.

1.1 - Let's Find Me! - In this part, students question who they are to the world around them and what is it about them that makes them unique.

1.2 - Oh my! What a Sky! - has the students explore what makes the night sky and the reason behind sunrise and sunset. And find similarities and differences between the day sky and night sky.

Units are named, in reference to the concept or the theme, which brings learnings from the lesson to a full circle for the children after they are finished with it.

Each Lesson in turn, constitutes three parts -

- Key questions in focus: As the name suggests, these are essential questions that will be addressed as a student advances in each lesson.
- Key content area: Key content area summarizes in specific what is being learnt. The focus of the subunit is captured by what is defined here.
- Vocabulary: A sub-unit's vocabulary includes all the terminologies, words and expressions that are touched upon across all activities.

Most lessons typically begin with the 'H' or 'Hook' sequence, wherein teachers narrate a story or ask a question to Hook children's interest, followed by 'E1' or 'Experience.' Where students are engaged in an activity, which ultimately helps them discover or understand the theme.

For instance, in Lesson 1 'Same & Different,' the students began with a small activity where students were given 12 items at random, along with cards with the words SAME SIZE; SAME SHAPE/ SAME COLOUR/ SAME TYPE or PATTERN.



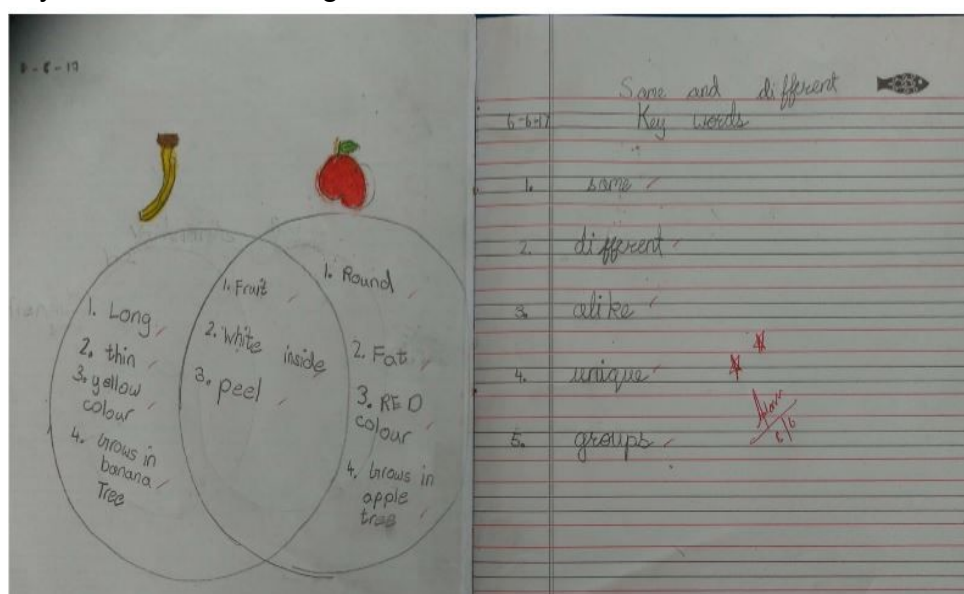
Each part of the activity is followed by 'R' or 'Reflect' - which can be a group or individual discussion session where they discuss how and why they did the activity.

**Thus, students arrive at the understanding of 'same & different' by themselves.**

The activities, are then taken forward from the previous discussion session.

In the course of teaching lessons, there are several TOOLS, taught to children for their reflection submissions, in order to help them organise and structure their thoughts. Such as - Venn Diagrams, T charts, Flow charts, Web organisers etc.

Based on their understanding from the activity showed above, they move on to further categorize the differences of the objects which they placed within the same category. For this, they used the Venn diagram.



At the end of certain important topics covered in lesson/unit, there is 'E2' - which constitutes the assessment part of the learning. The students' understanding can be assessed in a variety of ways, depending on the best suited method. This could include a written assignment, group work, model-making activity, performance etc.

The understandings from the first lesson are then taken to move on, to delve deeper in the theme. Thus, from 'same and different' the students explore the concept of appearance of living and nonliving things and inheritance and variation of traits in Lesson 2 - Let's Find Me. Students learn to relate to their appearance and physical traits with their parents and understand that there are similarities and differences in every family that makes them unique individuals.

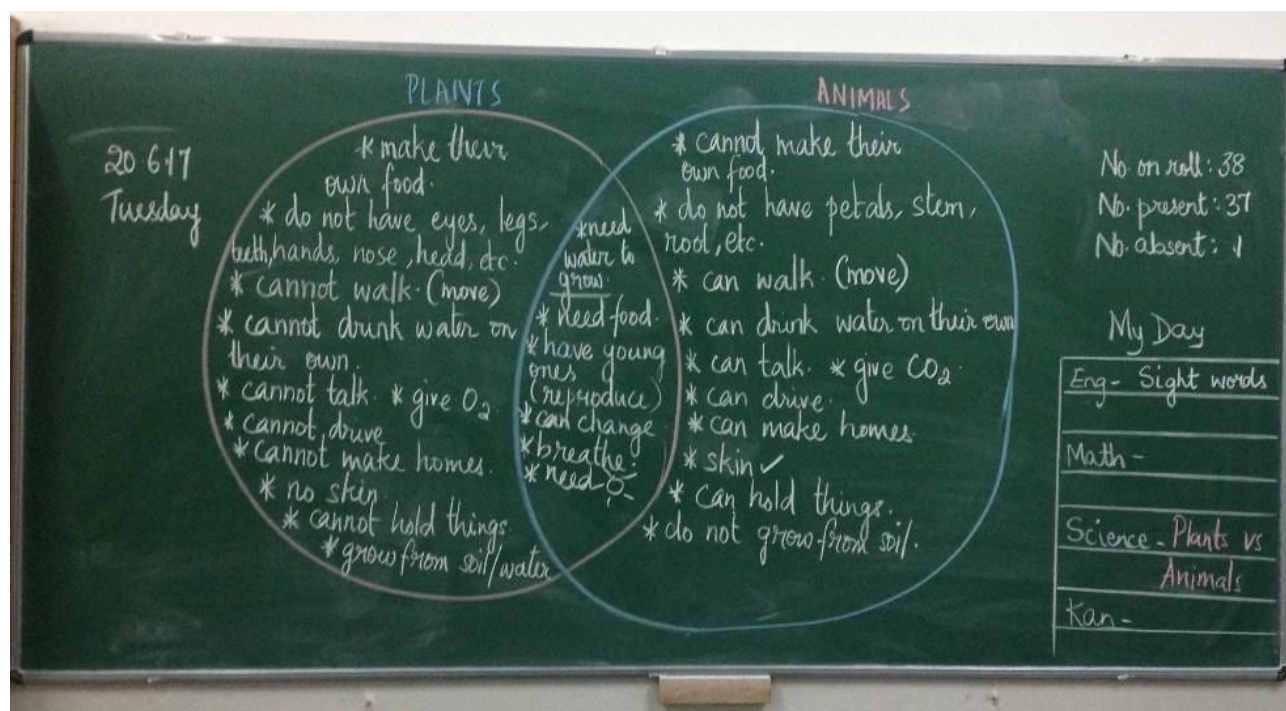
LET'S FIND ME!	
<b>KEY QUESTIONS IN FOCUS:</b> <ul style="list-style-type: none"> <li>- Who am I in the world around ME?</li> <li>- What about ME tells people who I am?</li> <li>- How are adults similar to their children?</li> <li>- How are adults different from their children?</li> </ul>	<b>VOCABULARY</b> <p>Living, non-living, features, senses, eat, needs, water, food, air, depend, similar, different, birth, young, babies, limbs, legs, roots, life cycle, waste, adults, appearance, eye colour, hair, skin, breathe, move, grow, drink, feel, shelter, traits, same, different, parent, offspring.</p>
<b>KEY CONTENT AREA:</b> <ul style="list-style-type: none"> <li>- Living things and nonliving things</li> <li>- Plants and Animals</li> <li>- Parents and Offspring- Plants and Animals</li> <li>- Variation in Traits</li> </ul>	

They begin with a Hook where, the students take a walk around the school and closely observe everything they see. From this, they classify the living from the non-living. They move on to study the functions of living and nonliving things.

Over the course of the lesson, through the sequence of activities planned for them, they go on to learn;-

- Functions of living things: Students explore the different functions of plants and animals – how they survive, grow and meet their needs. They examine the stages of growth in plants and animals closely. They also learn to differentiate between an adult and an offspring.



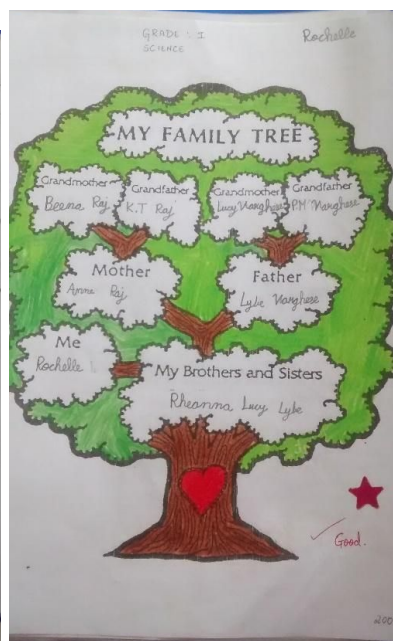
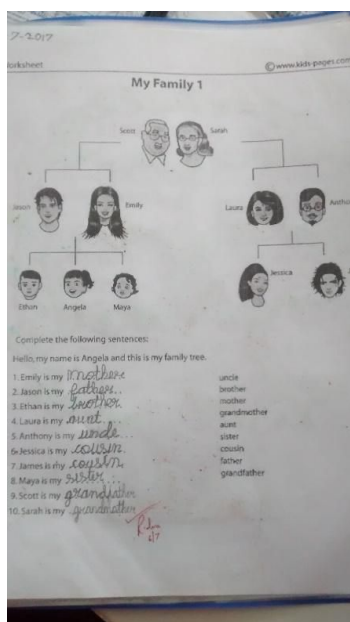


Students sort out images into a sequence of stages of growth in living things. Teachers explain that every living thing is characterized by different stages of growth.



Students mark their personal growth by comparing photos from their infancy, as a baby, a toddler and their present age.

- In my own family – Students compare personal appearance with that of their parents and close family members. The essential questions they tackle here are 'Who am I in the world around ME?' and 'What about ME tells people who I am', thereby exploring the role they play in their family and environment.



- Inheritance of traits: Students discover that a trait is a characteristic that is passed down from a parent to a child, such as having the same eye colour or

hair colour. In plants, the structure of leaves, petals, and stems are similar in both parent and offspring. External appearance in baby animals is similar or nearly identical to their adult parents.

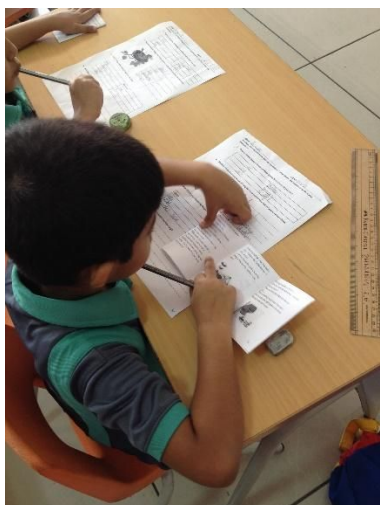


### How do we know they know?

To make sure that the intended learning has been translated in the classroom, there are **evaluated assessments and assignments** which are conducted along the way - this constitutes the '**E2**' part of the learning plan. At the end of every topic, there is a wrap-up where the teacher and students revisit the respective essential questions and answer them with all the observations made. This session helps students recollect every concept covered in the topic.


Aside being assessed from the activities that take place in the classroom, students also participate in a culminating performance called "Let's Be Scientists!" In this sub-unit, students read Dr. Seuss' "Are You My Mother?" and use their knowledge on traits, living and nonliving things, families and relationships to complete a worksheet.





1. Find and name three animals and their babies from the book you read.


2. Mention 3 features that you see in baby bird and mother bird that tell you they are related.



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NAME: Ujjwal DATE: 23-6-17

You have read the mini book 'Are you my mother?'. Now answer the questions to show you understand.

1. Find and name three animals and their babies from the book you read.

dog	puppy
cat	kitten
cow	calf

2. Mention 3 features that you see in baby bird and mother bird that tell you they are related.



wings	beak
size	colour
feathers	feathers
size	size

3. Name 3 living and 3 nonliving things from the story.

Living	Nonliving
tree	stone
egg	nest
bird	home

4. What did you learn from this story?

Baby bird's mother is a bird  
just like the baby bird.

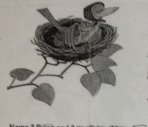
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cat	kitten
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2. Mention 3 features that you see in baby bird and mother bird that tell you they are related.



beak	wings
size	size
feathers	feathers

3. Name 3 living and 3 nonliving things from the story.

Living	Nonliving
egg	stone
bird	food
mother bird	nest

4. What did you learn from this story?

The story that I learn from the  
story is animals are different  
from human, birds and animals.  
All are different things we have  
in the earth and their animals.


NAME: Ujjwal DATE: 23-6-17

You have read the mini book 'Are you my mother?'. Now answer the questions to show you understand.

1. Find and name three animals and their babies from the book you read.

dog	puppy
cat	kitten
cow	calf

2. Mention 3 features that you see in baby bird and mother bird that tell you they are related.



beak	beak
size	size
feathers	feathers

3. Name 3 living and 3 nonliving things from the story.

Living	Nonliving
egg	stone
bird	food
cat	nest

4. What did you learn from this story?

Birds are different from  
other animals.

This was a brief summary of our Grade 1 Science Unit which highlights how our lessons are planned. This structure is maintained for other units and subjects as well.