IN Focus

CURRICULUM DESIGN

Educators are always seeking out ways to bring energy into their classrooms and into their lessons. But regardless of grade level, creating engaging and relevant curricula that meets standards while also effectively teaching subject matter can feel like an impossible effort.

Curriculum Design is generally defined as *"the deliberate organization of curriculum within a course or classroom. When instructors design their curriculum, they identify **what** the objective of each course is, **who** will do it and **when.** It involves planning activities, readings, lessons, as well as how the assessments will ascertain the achievement of educational goals."*

Curriculum Design is **important** because it centers a *teacher's practice based on individual needs* in the classroom. Any curriculum development effort should focus on being an *effective educator*, as it involves *rethinking lessons* that already exist to *re-envision* what would better *prioritize the needs of students & society*. The process of design and creation of new or revised curriculum brings *fresh and up-to-date ideas* to the classroom. Educators are already asked to handle more than their fair share of tasks in their career, so if they're going to add anything to their workloads, it must *clearly improve things* for them and their students. It must be an *intentional process*, and it can be *guided by a teacher's own experience*, or perhaps by a *workshop*, or even part of a *course attended*. In a dynamically evolving world, **Curriculum Design** is a **MUST**!

> " *Curriculum should help children make deeper and fuller understanding of their own experience.* – *Lilian Katz*

WONDER WORDS

CURRICULUM: Curriculum is a standards-based sequence of planned experiences where students practice and achieve proficiency in content and applied learning skills. It is the central guide prescribed by the Boards of Education for all educators.

SYLLABUS : A document that outlines all the essential information about a aprticular subject. It lists the topics & subtopics, as well as the due dates of any coursework including tests, quizzes, or exams.

MODULE: An instructional unit within a larger course or curriculum, usually organized by chronology, topic, or theme. Most syllabii are set up with modules that correspond to the weeks or main topics of the school term / semester, & learners proceed through them in chronological order.learners proceed through them in chronological order.

COURSE : A set of classes or a plan of study (usually short-term), on a particular subject, usually leading to an exam or qualification. **Course of Study** is an integrated course prepared for academic studies; a series of courses to be completed before progressing to the next level of education.

"We have to stop delivering the curriculum to kids.
We have to start discovering it with them."
— Will Richardson

QED Talk

NEP 2020's focus on CURRICULUM

MS. MADHAVI AGRAWAL
Founder, Cygnus World School (CBSE & IB-DP), Vadodara
(Only school in Gujarat and third school in the country to achieve Green Building Standards under the Leadership in Energy and Environment Design (LEED UK) for India green building rating.)

■ *When you thought of setting up your school, what kind of curriculum had you dreamt about or planned that your school would be identified with?*

Our school, Cygnus was set up 12 years ago. The curriculums prevalent in India at that time were CBSE, ICSE, IGCSE and the IB. Similar to today. I always felt that no matter which board or curriculum our school chooses, what would actually matter the most, would be the **sum total of all experiences** that a student undergoes at our school. We decided on a CBSE ++ approach. That is taking the basis of CBSE, but building upon it by providing an enriching, engaging, holistic 360 development for our students.

■ *There is a written curriculum, then there is the taught curriculum, the assessed curriculum and the curriculum that is supposed to hone the youth for employability in relation to the industrial requirements and futuristic trends. In your opinion, to what extent do each of these components in the current education system in India meet these needs?*

Let's look at some realities. India is a vast nation. A very vast nation. The divide across states, language , culture, rural, urban, privileged and non privileged is real. Designing and implementing an educational policy, keeping in mind the above dynamics is a herculean task. It is easy to criticise, not so easy to do. I actually believe that all the components mentioned in the question are addressed to an *above acceptable level* by our current education system.

Assessment is probably the weakest area, but extensive work is being done on that too.

■ *After 3 education policies since the exit of the British, we now seem to see some progress in curriculum re-design with the NEP 2020. Please comment on the significance of the proposed changes.*

Most conversations on the NEP 2002 start with talking about the replacement of the 10 + 2 structure and multulinguism. But the three most significant changes proposed by the NEP 2020, according to me are:

a) **Introduction of Vocational Education:** The NEP 2020 emphasizes the integration of vocational education and skill development into the mainstream.

b) **Assessment and Examination Reforms**: The policy introduces a shift from high-stakes board exams to more formative, competency-based assessments that test higher-order skills such as analysis, critical thinking, and conceptual clarity.

c) **Higher Education Reforms:** The NEP proposes a holistic and multidisciplinary approach to higher education. It includes the establishment of large multidisciplinary universities and colleges.

The NEP 2020's focus is on flexibility, holistic development, and the incorporation of modern pedagogical practices.

■ **Cygnus is primarily affiliated to the CBSE and the school has recently also embraced the IB DP programme.**

a. What propelled you into offering both programmes of study for school students?
b. To what extent have the 2 different curriculum designs impacted learning for the students, as you see it?

(a) There are **two primary reasons behind offering the CBSE and the IBDP program** at Cygnus:

(i) We believe that that the **CBSE program offers a very sound foundation** to our students. At the grade 11 level we wanted to offer them a choice between an Indian and an International curriculum.

(ii) As a school, Cygnus is able to understand and learn from two excellent curriculums. We are able to **imbibe best practises from both** and create an even **more thriving environment** for our students.

(b) **Certain learning areas remain very similar** for students from both the curriculums. Examples of these are Community service, real world experience, focus on physical and mental health, presentation and public speaking, etc.

There are naturally some differences.

In the **Indian curriculum** there is a *heavy volume of content that is delivered* to the children. The students are expected to memorise key points (with understanding and concept clarity) . Therefore students from the CBSE background t*ypically are able to store and recall more content* in their heads.

Students from the **International curriculum** become *better at expressing & writing*. This includes essay writing, report writing , framing long answers etc. They are also taught how to *critically analyse in a more effective manner*.

■ ***Successful implementation of the best curriculum designs has remained challenging for Indian Schools even today, due to the following:***
(a) large teacher-student ratios in classrooms   (b) focus on rote memorisation
(c) assessments to mainly measure marks & pass   (d) no real focus on authentic, deep and meaningful learning   (e) absence of curriculum time and focus on developing soft skills, life skills, human skills   (f) myopic subject streams and the lack of integration of the arts

What, in your opinion, should curriculum designers & policy makers deliberate on and make systemic changes on, if these challenges are to be addressed?

In my opinion curriculum designers and policy makers have done an excellent job with the NEP 2020. In spirit, the NEP emphasises *holistic development, multi disciplinary education and skill development*. Each of these can be drivers of true change.

As mentioned earlier, the real problem lies elsewhere.

The reality of low income schools is high student:teacher ratio. Under qualified teachers with low motivation. The landscape of India being highly complex in terms of rural/ urban, rich/poor, inter state differences etc. Too many applicants and too few seats in top universities leading to undue importance given to competitive exams.

Designing a curriculum given the above challenges is a herculean task and I believe that the NEP 2020 is a real step in the correct direction.

■ ***India is supposed to have some of the best curricula in engineering and management colleges for higher education. Why then do you feel has the 'brain drain continued'?*** *(It was reported that during the period 1996-2015, more than half of the toppers of class 10th & 12th had migrated and were studying / employed overseas.)*

Undoubtedly India has some of the finest medical and engineering colleges. But we need to look at numbers. Let's try to find seats for the top 3 percent of students graduating from grade 12 in India. If you combine all the seats in the top medical and engineering colleges in India, you will still fall woefully short. **The competition is debilitating.** Hence students who have the financial capacity look for greener and often easier pastures abroad.

■ ***Your final words....***

The educational landscape in India is a blend of rapid growth and systemic challenges. Significant strides have been made in increasing access to education. Higher education has expanded, with numerous universities and institutes of national importance. However, disparities in quality, regional imbalances and infrastructural deficits persist. The integration of ICT in education is accelerating, with a focus on digital literacy and online learning platforms. The NEP 2020 aims to overhaul the system, emphasizing holistic, multidisciplinary education and skill development, poised to shape India's future. *******

READ TO SUCCEED

FOR TEACHERS

Ensuring High-Quality Curriculum:
How to Design, Revise, or Adopt Curriculum Aligned to Student Success

- by **Angela Di Michele Lalor**

We know that curriculum is the core of the classroom experience, but what makes a **quality** curriculum? How can educators be sure that what they teach is strongly aligned to the specific standards that their district or school has adopted? What kinds of lessons, learning experiences, and assessments are most effective, and how should they be embedded within the curriculum? In this book, *Angela Di Michele Lalor* offers targeted advice and real-life examples from elementary and secondary units of study across a variety of content areas and standards, as well as field-tested rubrics, protocols, and other tools.

FOR PARENTS
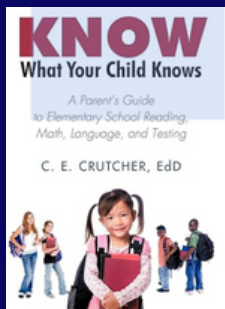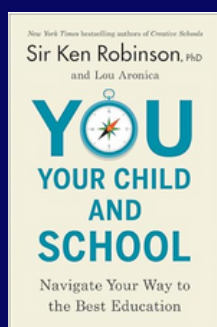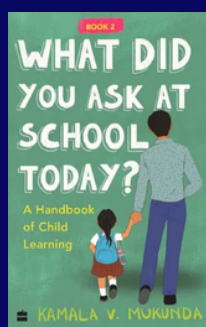
A TEACHERS GUIDE TO CURRICULUM DESIGN

Teachers' skills and knowledge are not only relevant as curriculum implementers, but also as *learning architects* who influence students' *learning experiences*. They master open material and have an important role in planning relevant and interesting learning activities.

As the *architects* of learning experiences, they create (or redesign) the overall course blueprint, mapping content to LOs, for each subject or for integrated units. Each desired learning objective is built around measured content, subject matter analysis, and interactive activities, alongwith with assessment strategies, exercises, and performances to assess learning. If you are wondering **WHY Curriculum Design** (or *Redesign*), here goes! It helps in :

- **Creating a goal-oriented curriculum** to improve participation, improve retention, foster collaborative learning and ultimately make learning more fun. When students & you know the where, why, how of a topic; you are both ready to meet the goals.

- **Ensuring that standards are being met,** since educators do have to ensure that their subject matter is meeting standards and that students are successfully reaching the benchmarks of their grade and age levels, as prescribed by the board.

- **Improving the teaching process** - we all know how curricula have been in circulation for years, they can get stale for both the students and the teacher. With a refreshed curriculum design, you can find new and exciting ways to teach the same subject matter, making your work more fun and students more engaged.

- **Improving student outcomes** —with a curriculum that is learner-centered or problem-centered, the teaching methodologies are more likely to align with student learning styles which, in theory, should improve their performance in the classroom.

If you are convinced about the importance of Curriulum Design / Re design, then **do plunge into it** keeping these tips in mind :

- Get familiar with the recommended **Curriculum proposed by the Board of Education** your school is affiliated with.

- Get familiar with the newness proposed by the **NEP 2020 & NCF-FNDL / NCF-SE**, depending on the grades you are dealing with.

- A student-centered curriculum originates with **identifying students' needs.** You should have a clear understanding of these needs and use them as a compass as you redesign the curriculum.

- **Choose a balanced Textbook:** Selecting the *best* coursebook can be challenging - in which publication can you get the maximum depth-breadth-examples and NEP compliance? A word of caution here, choose one that is India centric for sure, but not completely devoid of exposure to the world at large. Strike the right balance.

- **Acknowledge limitations**: In an *ideal* world, teachers would have endless resources and time to ensure that all components of their lesson plans and overall curriculum are taught to completion. But,

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in reality, there are limitations, in terms of bandwidth, student abilities, class time, sudden unplanned events and more. Acknowledge these limitations & ensure that *realistic expectations are set* when redesigning.

- **Select your instructional methods** — Choosing to redesign curriculum is an opportunity for you to *formulate lessons and strategies that play to your strengths*. In planning out a refreshed course plan, you should select instructional methods that *you are proficient in*, are *effective* with students and what they *enjoy*.

- **Plan for an effective, competency-based evaluation process.** While curriculum design is an opportunity to play to your strengths, it is also an opportunity to reflect and more clearly see the effectiveness of your teaching strategies. During this process, you should implement a solid **evaluation process** that gives you **high-quality feedback** on your lessons and helps *inform improvements* for the next time.

- **Upskill to stay updated.** Last but not the least, curriculum design is most effective and most creative, if you as the educator **remain updated with the latest trends in educational practices**. It is a good idea to pick up a few courses every year; focus on areas that you have not developed as strength areas as yet. Needless to say, the buzzwords these days are *Integration and Technology based education*! See where you are at with these skills.

> " *Instead of a national curriculum for education, what is really needed is an* **individual curriculum for every child.**
>
> *Charles Handy*

> " *All students should have a broad curriculum that includes the arts and enrichment. Students should have opportunities to work in teams and engage in project-based learning. And student and family well-being should be front and center.*
> **Randi Weingarten**

In essence, **curriculum design is an ongoing process**, much like *action research*. As a teacher, you can choose which **type of curriculum design** to use based on the size of your class and your student's educational needs. Here are the **three types** of curriculum design:

1. Subject-centered design - this is used when designing curriculum about a *specific subject material or educational topic*. This type of curriculum design focuses on the educational material, rather than a specific learning style. It includes information about the subject that a class studies and typically provides details on specific activities, coursework and exams a class can complete for each subject. E.g. a teacher may make a curriculum design that focuses only on math concepts, using generalized activities that cater to a variety of learning style. While subject-centered curriculum is easier to implement, it may be more challenging to use this to cater to each student's needs.

2. Learner-centered design - this is a student-centered design that involves creating a curriculum according to the needs of the student. A teacher may individualise a curriculum plan for each student, or create a curriculum design that involves the entire class based on the batch's level and abilities. It works best for small-sized classes - since learning-centered curriculum design involves allowing students to choose their assignments, activities and lessons according to their preferred learning style. This helps to motivate students to take control of their education. It is certainly more challenging to complete, since it requires more detailed instructions that are specific to each type of learning style - an assistant teacher can help.

3. Problem-centered design - this is *another form of student-centered design* that focuses on a student's specific educational *challenges / problems / concerns*. Teachers can use problem-centered design after identifying areas of improvement for a student's learning. For example, if a teacher notices a student struggling to understand a specific concept, they can use this curriculum design to help the student better understand the information. Teachers may also create problem-centered curriculum designs for common education challenges. So, if a teacher knows that students often have trouble with a specific science concept, they can make a curriculum design that covers the concept thoroughly.

Schools may combine *subject-centered curriculum* with *student-centered curriculum* to create a design that *covers the proper subjects and works with a variety of student learning styles*. It must also include the local and indigenous flavour along with world facts, the NEP recommended SDG4 & Citizenship aspects to address the requirements of the future. If you are **contemplating curriculum re-designing,** ask yourselves the **20 important Qs** mentioned in this link: **https://ascd.org/blogs/21-questions-to-ask-about-curriculum-development** ***

THE MAGIC OF CONCEPT – MAPS !
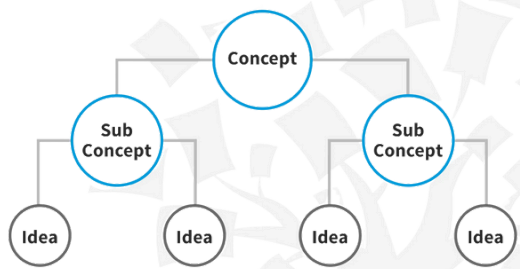
Graphical tools are majorly used in education as they can help explain even a complex topic in an easy, seamless manner. Students are encouraged to learn from various graphical tools to integrate visual memroy to work menemonics/key words and titles AND they can be included in almost every subject. **Concept Maps** have earned a special place in education. It is a diagrammatic / graphical tool that visually represents relationships between concepts and ideas. *It begins with a main idea (or concept) and then branches out to show how that main idea can be broken down into specific related sub-concepts.*

**Concept mapping in teaching** helps students and teachers alike in the following manner:

- Acts as a perfect visual aid and give teachers an edge while explaining something.
- Breaks down a complex topic into a simpler manner with little modules.
- Can be used in different subjects like English, Biology, History, Geography, Math, etc. Many examples of each are available, or can be made digitally.
- Helps to explore concepts that are already known and link them with a problem for better understanding.
- Also extensively used in brainstorming to boost self-learning and ideation, even build the flow for debates & speeches.
- Draws connections and relationships, making them less rigid and more dynamic to previously known & new knowledge.
- Connects a topic with different sub-topics, explore numerous domains, and resolve a complex issue with these diagrams.
- Aims at problem-solving and learning a topic rather than cramming textual information. In this way, students can retain the solution in the long run by actually understanding it.

Concept maps are *powerful extensions of our cognitive framework* that foster meaningful learning experiences. These digital tools leverage the principles of *Asubel's theory*, which proposes - " *understanding is deepened when new information is consciously connected with existing knowledge in a holistic way*." Also, *Visual Learning* allows learners to create mental images of the information presented in a format they can more easily *understand* and *remember*.

Now that you know **what** Concepts Maps are and **how important** they can be for *meaningful* learning, let's step it up a little and see some *examples*:
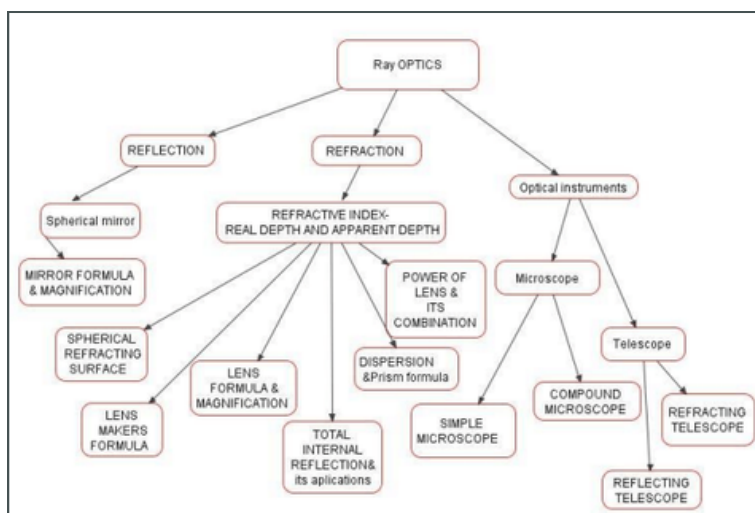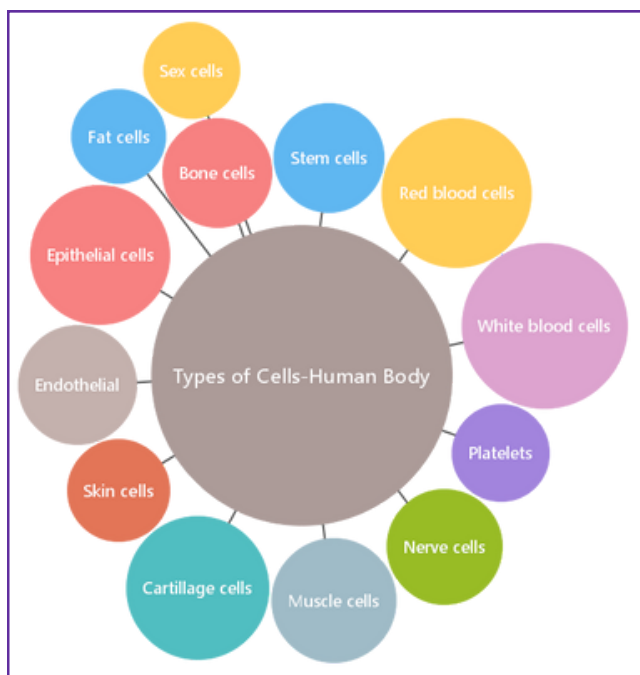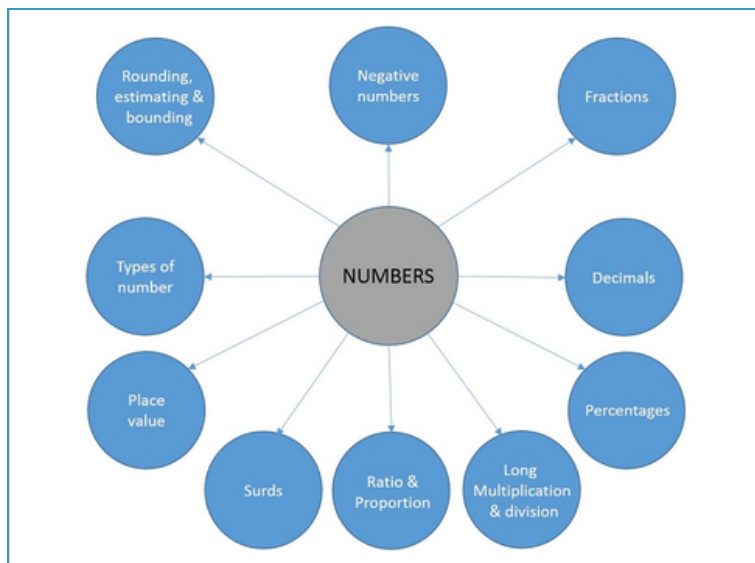
EXAMPLES OF CONCEPT - MAPS!
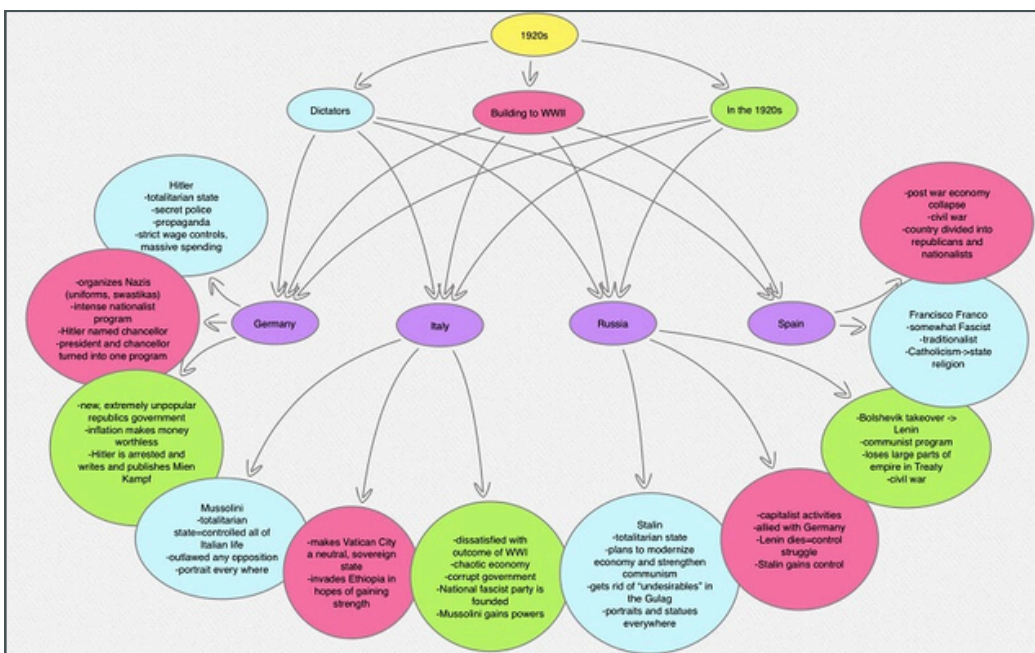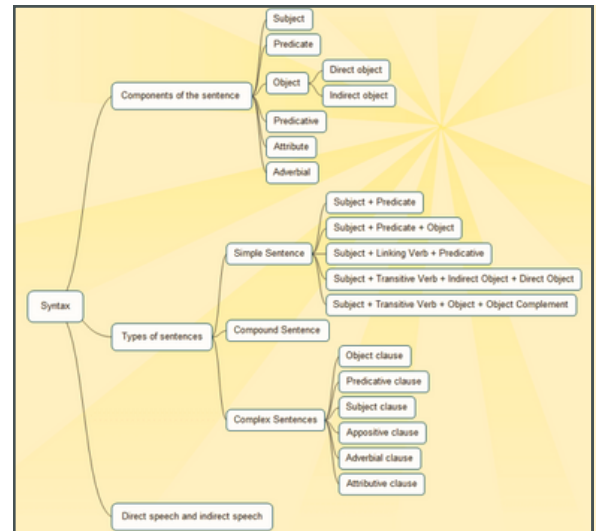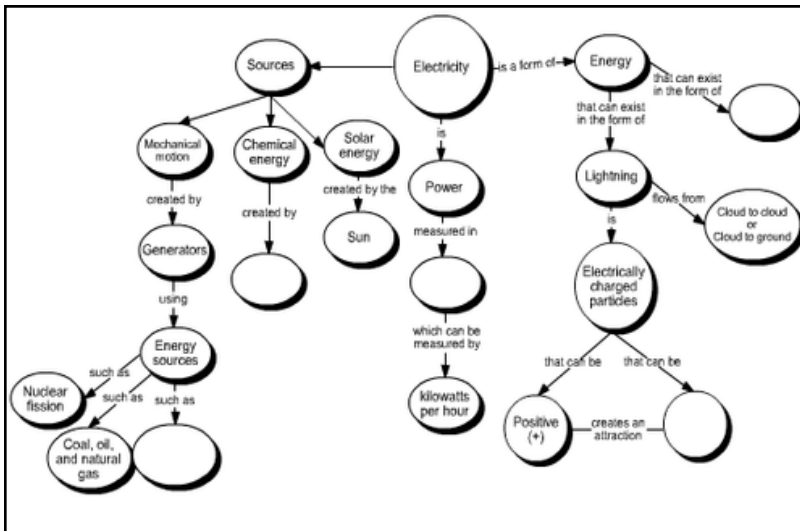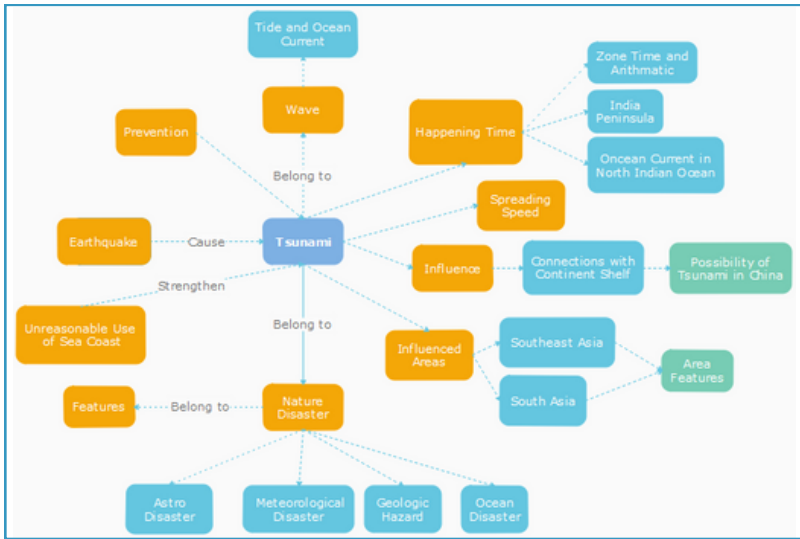
You can **create concept maps by using digital tools**!

Use this QR Code, scroll down through the article and choose the one that works best for you.

INTEGRATED CURRICULUM in action...

Team QEDRAK has been busy with not just training, but also with monitoring the efficacy and translation of the learning into classroom TL practices. This month we are delighted to share some **magical moments and testimonials** by the grade wise **Team Leaders** of the Integrated Thematic curriculum underway across grades 1- 4 , at JML School, Khar (W), Mumbai.

Grade 1

"At Grade 1 level, integrating NEP lessons into the curriculum has been a transformative experience. For our themes '**All About Me**, **People, Places and Safety, Food We Eat** and **The World of Animals** integration across subjects helped bring the concepts to life in the classrooms. The integration was meticulously planned by incorporating engaging activities that resonate with young minds. During planning, it was ensured that the teaching-learning experiences were interactive, incorporating storytelling, art, music, physical exercises, hands-on projects and so many other activities.

Execution involved a blend of classroom discussions and child led explorations, making learning holistic and enjoyable. The advantages were evident. Students became more curious and confident, developing a deeper understanding of their own selves, their surroundings and their role in the community. They learnt to appreciate diversity and the importance of safety, nutrition, and empathy towards animals. It highlighted the beauty of all the subjects seamlessly coming together to facilitate lifelong learning.

However, there were challenges. Adapting to NEP 2020's interdisciplinary approach required time and effort. Balancing various subjects while keeping the lessons engaging was demanding. Yet, with support and continuous improvement, these challenges eventually became manageable. Overall, the NEP framework has enriched our educational journey, fostering a love for learning and a well-rounded development in the students. It leads to a more dynamic and effective teaching-learning experience."

- Ms. Ruhi Shaikh

Grade 2

"Teaching through NEP guidelines provided a flexible and multidisciplinary approach in education aligned with the needs of the 21st century children. We - the Teachers at Jasudben M. L. School taught various themes like:
All About Me, which helped students in personal growth and self-awareness. The students delve into self-identity, exploring aspects such as individual talents, interests, and values.
People, Places and Safety, this theme highlighted the importance of community, relationships, and safety. It also helped students in understanding the significance of diverse places, from local neighbourhoods to global destinations, enhances cultural awareness and adaptability. Additionally, prioritizing safety, whether at home, school, or public spaces, ensures a secure environment where individuals can thrive. Awareness of safety measures and practicing caution is vital for preventing accidents and protecting oneself and others.
Food We Eat, understanding the sources, types, and benefits of different foods. Knowledge about food origins and sustainable practices fosters appreciation for natural resources and encourages mindful eating.
The World of Animals, significance of the animal kingdom. Learning about different animal species and their ecological roles in enhancing our understanding of nature's interdependence.

In conclusion, these themes highlight the connection between the self, community, nutrition and nature.

Embracing these elements fosters holistic development, improves the quality of teaching-learning and facilitates the development of students' full potential. It makes the learning enjoyable and interactive for students. However, there were some challenges faced initially in terms of time and effort, but it is indeed the most enriching experience for us."

- Kajal Sheth

Grade 3

"Implementing NEP 2020 with the theme of the **World of Animals** for grade 3 has been a fun and rewarding experience. From the start, we created lessons that connected real-life examples to spark students' curiosity and encourage them to think critically. By combining core subjects with creative activities, we aimed to give students a well-rounded understanding of the theme. The lessons have been very engaging. Students took part in various activities to learn about different animals, their habitat and habits and why biodiversity is important. Through role-playing, projects, and group discussions, they developed empathy and communication skills. Ultimately, students had a theme culmination through quizzes, skits, and roadmaps, completing their journey through the theme. Team QEDRAK provided valuable feedback that we could use in our future integrated units. Overall, these lessons have greatly increased students awareness of the animal world and inspired them to care more about the environment. They are now much more confident in using what they have learned and are eager to help protect nature."

- Ayushi Dani

"The theme of People, Places, and Safety for grade 4, through the NEP 2020 lens, has been a valuable experience. During the planning stage, we created a curriculum that utilized real-life examples to teach awareness and critical thinking. Collaborating together, we designed lessons that integrate our core subjects with aesthetic subjects to provide students with a holistic exploration of the theme. In practice, these lessons have proven to be very engaging. Students participated in a variety of activities that helped them gain a better understanding of their community and the importance of safety. Role-playing, activity-based learning, and group discussions aided students in developing empathy and communication skills. Ultimately, students had a theme culmination through quizzes, skits, and roadmaps, completing their journey through the theme. Team QEDRAK provided valuable feedback that we could use in our future integrated units. Overall, NEP lessons on this theme have increased students' awareness of their surroundings and fostered a greater sense of social responsibility in them. They are now better equipped to handle safety-related situations and demonstrate increased confidence in applying their knowledge."

- Dipti Puthran

"Humans are tuned to learn thematically. None of us are told at birth that when you count how many eyes you have, that's Math and when you can correctly frame a sentence, that's Language. Take cooking, for example. What a cook does in the kitchen is nothing short of complex mathematics and chemistry, peppered with a bit of geography, biology and physics, a dash of history and at the end, pure aesthetic art! Then why should school (at least the foundational and preparatory years) have us learn in silos?

With the NEP emphasising thematic integrated learning, every school must grab the opportunity and rethink their TL methods.

At JML School, we have tied up with QEDRAK to train our staff in the foundational and preparatory years to adopt integrated learning. Our teachers are now thinking beyond textbooks and creating even more fun and engaging lessons for the little learners. Keeping age-appropriate key skills and competencies in full view, the project-based, hands-on TL methods are transforming all areas of the school into learning zones – from playgrounds to science labs, corridor walls to auditoriums. Varied assessment formats are being used to address varying types of learners. We are witnessing a transformation in how receptive the children are to learning when it is done in this way."

- Shachii Manik
School Coordinator (JML & Bloomingdales)
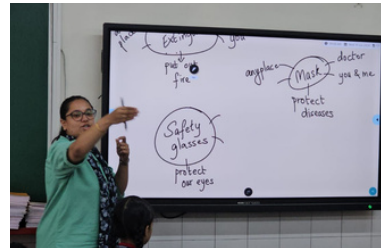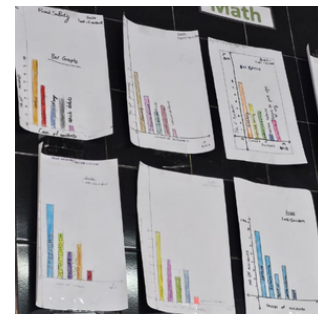
The **August 2024** issue's theme is - *Being Internet Safe & Smart!* Please send your theme-related contributions - an effective classroom strategy / class humour / vocab word / a featured article / book titles, etc. to - **team@qedrak.com**

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