
	LKG – Class 10
Dr. Kishore's RATNAM GEN NEXT SCHOOLS	
NATIONAL EDUCATION POLICY 2020 – IMPORTANT POINTS	

i)	Fundamental Principles	03
ii)	Vision	05
1)	Early Childhood Care and Education (ECCE) : The foundation of learning	06
2)	Foundational Literacy and Numeracy :	
	An urgent and necessary prerequisite to learning	08
3)	Books and library	09
4)	Restructuring School curriculum and pedagogy in a new 5 + 3 + 3 + 4 design	
	Introduction	10
	Education : Learning and Teaching	11
5)	Holistic development of learners	13
6)	Reduce curriculum content to enhance essential learning and critical thinking	14
7)	Experiential learning	
	Introduction	15
	Alignment of Assessment tool with ...	16
	Art-integration	17
	Sports-integration	17
8)	Empower students through flexibility in course choices	18
9)	Multilingualism and the power of language	
	Three languages	20
	Fun project / activity	21
	Classical literature / Classical languages	22
	Foreign languages	23
	Teaching	23

10)	Curricular integration of Essential subjects, skills and capacities	
	Introduction	24
	Skills	25
	Contemporary subjects	26
	Mathematics and mathematical thinking	26
	Learning Coding	27
	Vocational crafts	28
	Enrichment activities	29
	Competitions	30
	Luminaries of India	30
	Cultural exchange programmes	30
	Knowledge of India	30
	Ethical decisions	32
	Indian constitution	34
	Health	34
	Indian and local context and ethos	35
11)	National Textbooks and local content and flavour	36
12)	Transforming assessment for student development	
	Introduction	38
	Progress card	39
13)	Board exams	
	What do they test?	40
	Grades 3, 5 & 8 school exams	42
	University entrance exams	43
14)	Support for gifted students / students with special talents	
	Introduction	45
	Topic-centered and project-based clubs and circles	46
	National residential summer programmes	46
	Olympiads and competitions	47
	University admissions	47
	Digital help	47

	LKG – Class 10
Dr. Kishore's RATNAM GEN NEXT SCHOOLS	
FUNDAMENTAL PRINCIPLES & VISION	

‘What to Think’ to ‘How to Think’ ideology.

FUNDAMENTAL PRINCIPLES

The **fundamental principles** that will guide both the education system at large, as well as the individual institutions within it are:

- * recognizing, identifying, and fostering the unique capabilities of each student, by sensitizing teachers as well as parents to promote each student’s holistic development in both academic and non-academic spheres
- * according the highest priority to achieving Foundational Literacy and Numeracy by all students by Grade 3
- * flexibility, so that learners have the ability to choose their learning trajectories and programmes, and thereby choose their own paths in life according to their talents and interests
- * no hard separations between arts and sciences, between curricular and extra-curricular activities, between vocational and academic streams, etc. in order to eliminate harmful hierarchies among, and silos between different areas of learning
- * multidisciplinary and a holistic education across the sciences, social sciences, arts, humanities, and sports for a multidisciplinary world in order to ensure the unity and integrity of all knowledge
- * emphasis on conceptual understanding rather than rote learning and learning-for-exams

- * creativity and critical thinking to encourage logical decision-making and innovation
- * ethics and human & Constitutional values like empathy, respect for others, cleanliness, courtesy, democratic spirit, spirit of service, respect for public property, scientific temper, liberty, responsibility, pluralism, equality, and justice
- * promoting multilingualism and the power of language in teaching and learning
- * life skills such as communication, cooperation, teamwork, and resilience
- * focus on regular formative assessment for learning rather than the summative assessment that encourages today's 'coaching culture'
- * extensive use of technology in teaching and learning, removing language barriers, increasing access for Divyang students, and educational planning and management
- * respect for diversity and respect for the local context in all curriculum, pedagogy, and policy, always keeping in mind that education is a concurrent subject
- * full equity and inclusion as the cornerstone of all educational decisions to ensure that all students are able to thrive in the education system
- * synergy in curriculum across all levels of education from early childhood care and education to school education to higher education
- * teachers and faculty as the heart of the learning process – their recruitment, continuous professional development, positive working environments and service conditions
- * a 'light but tight' regulatory framework to ensure integrity, transparency, and resource efficiency of the educational system through audit and public disclosure while encouraging innovation and out-of-the-box ideas through autonomy, good governance, and empowerment

- * outstanding research as a corequisite for outstanding education and development
- * continuous review of progress based on sustained research and regular assessment by educational experts
- * a rootedness and pride in India, and its rich, diverse, ancient and modern culture and knowledge systems and traditions

VISION

The vision of the Policy is to instill among the learners a **deep-rooted pride** in being **Indian**, not only in **thought**, but also in **spirit, intellect, and deeds**, as well as to develop **knowledge, skills, values, and dispositions** that support **responsible commitment** to human rights, **sustainable development and living**, and **global well-being**, thereby reflecting a **truly global citizen**.

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS NEP 2020</p>	<p>Early Childhood Care and Education (ECCE): The Foundation of Learning</p>
<p>I</p>	<p>OUR FOCUS of CONCERN IS : how we should propagate, how the education should be made pervasive, how this can be brought into teaching, etc.</p>

UP TO AGE 8

<p>1) The learning should be</p> <ul style="list-style-type: none"> flexible multi-faceted multi-level play-based activity-based with activity-filled tours inquiry-based discovery-based 	<p>2) The Education should comprise of</p> <ul style="list-style-type: none"> alphabet languages numbers counting colours shapes indoor and outdoor play puzzles and logical thinking problem-solving drawing painting visual art craft drama puppetry music movement
<p>3) The following also should be the focus of development.</p> <ul style="list-style-type: none"> social capacities sensitivity good behaviour courtesy ethics personal and public cleanliness teamwork cooperation 	

4) The overall aim is to attain optimal outcomes in the domains of:

- physical and motor development
- cognitive development
- socio-emotional-ethical development
- cultural/artistic development
- the development of communication
- early language, literacy & numeracy

5) The numerous rich local traditions of India developed over millennia will also be incorporated.

- art
- stories
- poetry
- games
- songs

Benefits:

- Reduction in behavioural issues throughout school journey
- Improvement in social skills of the children
- Better learning outcomes in later grades
- Larger attention span and overall better retention of information

NOTE:

The above guidelines will be aligned in two parts, namely, a sub-framework for 0 – 3 year-olds, and a sub-framework for 3 – 8 year-olds. The framework will serve as a guide both for parents and for early childhood care and education institutions.

PREPARATORY CLASS

The learning prior to the age of 5, in the Preparatory Class (that is, before Class 1) shall be based primarily on play-based learning with a focus on developing:

- cognitive
- affective
- psychomotor abilities
- early literacy**
- early numeracy**

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS</p>	<p>Foundational Literacy and Numeracy : An Urgent & Necessary Prerequisite to Learning</p>
<p>NEP 2020</p>	<p>III</p>

Every student should attain **FOUNDATIONAL LITERACY** and **FOUNDATIONAL NUMERACY** by Grade 3.

The NEP will become relevant for the students only if this most basic learning requirement (i.e., reading, writing, and arithmetic at the foundational level) is first achieved.

The development journey from
Learn To Read
to
Read To Learn
should be completed through
Foundational Literacy and
Numeracy.

There should be a robust system of continuous **formative / adaptive assessment** to track and thereby **individualize** and **ensure** each **student's learning**.

Specific hours daily and **regular events** over the **year-on activities** involving these subjects will be dedicated to encourage and enthuse students.

On the **curricular side**, throughout the **preparatory** and **middle** school curriculum, there will be an increased focus on foundational literacy and numeracy – and generally, on ...

- reading
- writing
- speaking
- counting
- arithmetic
- mathematical thinking

Students should have the ability to read and comprehend basic text and the ability to carry out basic addition and subtraction with Indian numerals.

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS NEP 2020</p>	<p>Foundational Literacy and Numeracy : BOOKS & LIBRARY</p>
<p>III</p>	

There should be availability of **enjoyable and inspirational BOOKS** for students at all levels, in all local and Indian languages.

School libraries and book clubs will facilitate and promote widespread reading.

Government: A National Book Promotion Policy will be formulated, and extensive initiatives will be undertaken to ensure the availability, accessibility, quality, and readership of books across geographies, languages, levels, and genres.

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS</p> <p>NEP 2020</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging</p> <p>Restructuring school curriculum and pedagogy in a new 5 + 3 + 3 + 4 design</p>
<p>IV</p>	

The curricular and pedagogical structure of school education will be responsive and relevant to the developmental needs and interests of learners at different stages of their development, corresponding to the **age ranges of 3-8, 8-11, 11-14, and 14-18** years, respectively.

When education is linked to the surroundings, it leaves an impact on the entire life of the student and the entire society as well.

The curricular and pedagogical structure and the curricular framework for school education will therefore be guided by a 5+3+3+4 design, consisting of:

- Foundational Stage** (in two parts, that is, 3 years of Pre-school + 2 years in primary school in Grades 1-2; both together covering ages 3-8)
- Preparatory Stage** (Grades 3-5, covering ages 8-11)
- Middle Stage** (Grades 6-8, covering ages 11-14)
- Secondary Stage** (Grades 9-12 in two phases, i.e., 9 and 10 in the first and 11 and 12 in the second, covering ages 14-18)

Students will be taken to those places on **study tours** by the institutions so that they understand the multifaceted civilization, culture, knowledge systems, science and literature of our country.

EDUCATION : LEARNING AND TEACHING

Foundational Stage

(Play Class, LKG, UKG, Class 1 & Class 2)

This stage will have five years of the following learning: (refer previous page)

- flexible
- multilevel
- discovery-based
- play-based
- activity-based

The given-described stages are purely curricular and pedagogical, designed to optimize learning for students based on the cognitive development of children; they will inform the development of National and State curricula and teaching-learning strategies at each stage, but parallel changes to physical infrastructure will not be required.

Preparatory Stage

(Class 3, Class 4 & Class 5)

This stage will have three years education building on **Foundational Stage**.

The major incorporations in this stage will be:

- * some light textbooks
- * aspects of more **formal but interactive** classroom learning, including ...

reading	writing
speaking	physical education
art	languages
science	mathematics

<p>Middle Stage (Class 6, Class 7 & Class 8)</p>	<p>The practices of the pedagogical and curricular style of the Preparatory Stage will be followed to build this stage.</p>
<p>This stage will have three years education.</p>	

<p>The major incorporations in this stage will be:</p> <ul style="list-style-type: none"> * Introduction of subject teachers for learning and discussion of the more abstract concepts in each subject that students will be ready for at this stage across the sciences, mathematics, arts, social sciences, and humanities. * The following will be encouraged and emphasized despite the introduction of more specialized subjects: <ul style="list-style-type: none"> Experiential learning within each subject Explorations of relations among different subjects

<p>Secondary Stage (Class 9, Class 10, Class 11 & Class 12)</p>	<p>This stage is Four years of multidisciplinary study.</p>
<p>This stage will be built on the subject-oriented pedagogical and curricular style of the Middle Stage, but with ...</p> <ul style="list-style-type: none"> * greater depth * greater critical thinking * greater attention to life aspirations * and greater flexibility * student choice of subjects 	<p>NOTE: Students would continue to have the option of exiting after Grade 10 and re-entering in the next phase to pursue vocational or any other courses available in Grades 11–12, including at a more specialized school, if so desired.</p>

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS NEP 2020</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging Holistic Development of Learners</p>
<p>V</p>	

Holistic development of learners

The key overall thrust of curriculum and pedagogy reform across all stages will be to move the education system **towards real understanding** and **towards learning how to learn** - and away from the culture of rote learning as is largely present today.

The **aim of education** will be :

- cognitive development
- building character
- creating holistic well-rounded individuals
- equipped with the key 21st century skills

General

- * Understand that Knowledge is a deep-seated treasure and education helps in its manifestation as the perfection which is already within an individual.
- * The curriculum and pedagogy should be to attain these **critical goals**.
- * Specific **sets of skills** and **values** across domains will be identified for integration and incorporation at each stage of learning, from pre-school to higher education.
- * Curriculum frameworks and transaction mechanisms should ensure that these skills and values are imbibed through engaging processes of teaching and learning.
- * **NCERT will identify these required skill sets and include mechanisms for their transaction in the National Curriculum Framework for early childhood and school education.**

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS</p> <p>NEP 2020</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging</p> <p>Reduce curriculum content to enhance essential learning and critical thinking</p>
<p>VI</p>	

Reduce curriculum content to enhance essential learning and critical thinking:

<p>Curriculum content will be reduced in each subject to its core essentials, to make space for in the following learning:</p> <ul style="list-style-type: none"> critical thinking creative thinking more holistic inquiry-based discovery-based discussion-based analysis-based 	<p>The principles should be aligned to the 21st century skills in the classrooms</p>
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<p>The teaching and learning will be more of:</p> <ul style="list-style-type: none"> interactive manner and questions will be encouraged. 	<p>The mandated content will focus on ...</p> <ul style="list-style-type: none"> key concepts ideas applications problem-solving
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<p>EXPERIENTIAL LEARNING:</p> <p>The classroom sessions will regularly contain more fun, creative, collaborative, and exploratory activities for students for deeper and more experiential learning.</p>

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS NEP 2020</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging</p> <p>Experiential Learning</p>
<p>VII</p>	

Experiential learning is an engaged learning process whereby students “learn by doing” and by reflecting on the experience.

In all stages, experiential learning will be adopted as standard pedagogy within each subject. These include:

- hands-on learning**
- arts-integrated**
- sports-integrated education**
- story-telling-based pedagogy**
- explorations of relations among different subjects**

Students will be taken to those places on **study tours** by the institutions so that they understand the multifaceted civilization, culture, knowledge systems, science and literature of our country.

To close the gap in achievement of learning outcomes, classroom transactions will shift, towards **competency-based learning and education**.

* **Competency-based learning** is a learning approach where learners move from one learning level to a higher one based on their demonstration of knowledge rather than based on time spent on a specific course. This learning approach ensures that learners learn at their own pace and focus more on mastery of knowledge and valuable skills. It's not about dumping and forcing knowledge onto learners. Rather, it ensures that learners retain knowledge and attain a specific degree of mastery of a particular subject before moving onto the next level of learning.

ALIGNMENT OF ASSESSMENT TOOLS with ...

The assessment tools (including assessment “as”, “of”, and “for” learning) will also be **aligned** with the **learning outcomes, capabilities, and dispositions** as specified for each subject of a given class.

Capabilities: The purpose of encouraging and supporting the attainment of capabilities in the curriculum is so that students can develop the knowledge, knowhow and capacity to keep learning in order to meet real-world challenges in a range of situations.

Dispositions: Dispositions are combinations of children’s **emerging knowledge, skills and attitudes** to learning.

- * **Positive dispositions** for learning include **courage and curiosity, trust and playfulness, perseverance, confidence and responsibility.**
- * Dispositions for learning also include **the way children approach the learning**, for example : taking an interest, being involved, persisting with difficulty, challenge and uncertainty, and expressing a point of view.

‘**Assessment for learning**’ is a type of formative assessment ... utilized by teachers in order to gain an understanding of their students' knowledge and skills in order to guide instruction.

‘**Assessment as learning**’ ... is also a formative assessment which focusses on teaching students the **metacognitive processes** to **evaluate** their **own learning** and **make adjustments**. **Metacognition** is the ability to use prior knowledge to **plan a strategy** for approaching a learning task, **take necessary steps** to problem solve, **reflect on** and **evaluate** results, and **modify** one’s approach as needed.

‘**Assessment of learning**’ is a summative assessment used primarily to compare students and report progress.

ART-INTEGRATION

ART-INTEGRATION is a cross-curricular pedagogical approach that utilizes various aspects and forms of art and culture as the basis for learning of concepts across subjects.

As a part of the thrust on experiential learning, **art-integrated education will be embedded in classroom transactions** not only for creating joyful classrooms, but also for **imbibing the Indian ethos** through integration of **Indian art and culture** in the teaching and learning process at every level. **ETHOS** means guiding beliefs or ideals that characterize a community, nation, or ideology.

This approach will strengthen the linkages between **education** and **culture**.

SPORTS-INTEGRATION

SPORTS-INTEGRATION is another cross-curricular pedagogical approach that utilizes physical activities including **indigenous sports**, in pedagogical practices to help in developing skills such as:

collaboration
self-initiative
self-direction
self-discipline
teamwork
responsibility
citizenship and many more

Sports-integrated learning will be undertaken in classroom transactions to help students adopt fitness as a lifelong attitude and to achieve the related life skills along with the levels of fitness as envisaged in the FIT INDIA MOVEMENT.

Integrating sports in education serves to foster holistic development by promoting **physical and psychological well-being** while also enhancing **cognitive abilities**.

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS NEP 2020</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging</p> <p>Empower students through flexibility in course choices</p>
<p>VIII</p>	

Flexibility in course choices

Inter-disciplinary study: There will not be any traditional boundaries between arts, science and commerce. If someone is interested, they can learn: Maths and Music together, or Coding and Chemistry together. This will ensure the focus is on what the student wants to learn rather than what the student is expected to, by society. **Inter-disciplinary studies gives you control. In the process, it also makes you flexible.**

Students will be given increased flexibility and choice of subjects to study, particularly in **secondary school** - including subjects in **physical education**, the **arts and crafts**, and **vocational skills** – so that they can design their **own paths of study and life plans**.

Holistic development and a wide choice of subjects and courses year to year will be the new distinguishing feature **of secondary school education**.

There will be **no hard separation** among 'curricular', 'extracurricular', or 'co-curricular' among 'arts', 'humanities', and 'sciences', or between 'vocational' or 'academic' streams.

Subjects such as **physical education**, the **arts and crafts**, and **vocational skills**, in addition to **science**, **humanities**, and **mathematics**, will be incorporated throughout the school curriculum, with a consideration for **what is interesting and safe at each age**.

POLICY RELATED

- * Each of the four stages of school education, in accordance with what may be possible in different regions, may consider **moving towards a semester** or any other system that allows the **inclusion of shorter modules**, or **courses** that are **taught on alternate days**, in order to **allow an exposure** to more **subjects** and enable **greater flexibility**.

- * **States may look into innovative methods to achieve these aims of greater flexibility and exposure to and enjoyment of a wider range of subjects, including across the arts, sciences, humanities, languages, sports, and vocational subjects.**

Dr. Kishore's Ratnam

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging</p> <p>Multilingualism and the power of Language</p>
<p>NEP 2020</p>	<p>IX</p>

Multilingualism and the power of language

THREE LANGUAGES

All languages will be taught in an **enjoyable and interactive style**, with ...

- * plenty of **interactive conversation**, and with **early reading** and subsequently **writing** in the **MOTHER TONGUE** in the **early years**,
- * and with skills developed for reading and writing in **OTHER LANGUAGES** in **Grade 3 and beyond**.

- * The three languages learned by children will be the choices of States, regions, and of course the students themselves, so long as **at least two of the three languages are native to India**.
- * In particular, students who wish to **change one or more of the three languages** they are studying may do so in **Grade 6 or 7**, as long as they are able to **demonstrate basic proficiency in three languages** (including one language of India at the **literature level**) **by the end of SECONDARY SCHOOL**.

FUN PROJECT / ACTIVITY

Every student in the country will participate in a fun **project/activity** on 'The Languages of India', sometime in Grades 6-8, such as, under the 'Ek Bharat Shrestha Bharat' initiative.

In this project/activity, students will learn about the remarkable unity of most of the major Indian languages, starting with ...

- * their common phonetic and scientifically-arranged alphabet letters and scripts
- * their common grammatical structures
- * their origins and sources of vocabularies from Sanskrit and other classical languages
- * their rich inter-influences and difference
- * what geographical areas speak which languages
- * get a sense of the nature and structure of tribal languages
- * learn to say commonly spoken phrases and sentences in every major language of India
- * learn a bit about the rich and uplifting literature of each (through suitable translations as necessary)

Such an activity would give the students **both a sense of the unity and the beautiful cultural heritage and diversity of India** and would be a wonderful icebreaker in their whole lives as they meet people from other parts of India.

This project/activity would be a joyful activity
and **would not involve any form of assessment.**

As India becomes a fully developed country, the next generation will want to partake in and be enriched by India's **extensive and beautiful classical literature.**

CLASSICAL LITERATURE

CLASSICAL LANGUAGES

In addition to Sanskrit, other **classical languages and literatures** of India, including

- | | |
|---------|-------------|
| Tamil | Telugu |
| Kannada | Malayalam |
| Odia | Pali |
| Persian | and Prakrit |

Similar efforts will be made for all Indian languages having rich oral and written literatures, cultural traditions, and knowledge.

will also be widely available in schools as options for students, possibly as **online modules** through **experiential** and **innovative approaches**, to ensure that these languages and literature stay **alive and vibrant.**

For the enrichment of the children, and for the preservation of these rich languages and their artistic treasures, all students in all schools, public or private, will have the option of learning **at least two years of a classical language of India and its associated literature**, through **experiential and innovative approaches**, including the integration of technology, in **Grades 6-12**, with **the option to continue from the middle stage through the secondary stage and beyond.**

FOREIGN LANGUAGES

In addition to high quality offerings in Indian languages and English, **foreign languages**, such as **Korean, Japanese, Thai, French, German, Spanish, Portuguese,** and **Russian**, will also be offered at the **secondary level**, for students to learn about the **cultures of the world** and to enrich their **global knowledge** and **mobility** according to their own interests and aspirations.

TEACHING

The teaching of all languages will be enhanced through innovative and experiential methods, including through **gamification** and **apps**, by weaving in the cultural aspects of the languages – such as **films, theatre, storytelling, poetry, and music** - and by drawing **connections with various relevant subjects and with real-life experiences**. Thus, the teaching of languages will also be based on **experiential-learning pedagogy**.

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging</p> <p>Curricular Integration of Essential Subjects, Skills, and Capacities</p>
<p>NEP 2020</p>	<p>X</p>

The focus should be on **learning** rather than studying and **emphasize on critical thinking beyond the curriculum.**

There is a strong emphasis on **passion, practicality** and **performance** rather than the process.

The following heading are discussed:

SKILLS

CONTEMPORARY SUBJECTS

MATHEMATICS AND MATHEMATICAL THINKING

LEARNING CODING

VOCATIONAL CRAFTS

ENRICHMENT ACTIVITIES

COMPETITIONS

LUMINARIES OF INDIA

CULTURAL EXCHANGE PROGRAMMES

KNOWLEDGE OF INDIA

ETHICAL DECISIONS

INDIAN CONSTITUTION

HEALTH

INDIAN AND LOCAL CONTEXT AND ETHOS

- * When you learn, you get the wisdom to question.
 - * When you question, you get out-of-the-box methods to solve problems.
- When you do that, you grow.**

SKILLS

While students must have a large amount of flexibility in choosing their individual curricula, **certain subjects, skills, and capacities** should be learned **by all students** to become **good, successful, innovative, adaptable, and productive** human beings in **today's rapidly changing world**.

In addition to proficiency in languages, these **skills include**:

<ul style="list-style-type: none"> * scientific temper and evidence-based thinking * creativity and innovativeness * sense of aesthetics and art * oral and written communication * health and nutrition * physical education, fitness, wellness, and sports * collaboration and teamwork * problem solving and logical reasoning * vocational exposure and skills * digital literacy, coding, and computational thinking 	<p>As children progress in classes, they should develop a spirit to learn more; children's minds, their brain should start thinking scientifically and logically.</p>
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ethical and moral reasoning	*
knowledge and practice of human and Constitutional values	*
gender sensitivity	*
Fundamental Duties	*
citizenship skills and values	*

<ul style="list-style-type: none"> * knowledge of India * environmental awareness including water and resource conservation, sanitation and hygiene * and current affairs and knowledge of critical issues facing local communities, States, the country, and the world 	
--	--

CONTEMPORARY SUBJECTS

Concerted (jointly arranged or carried out; coordinated) **curricular and pedagogical initiatives**, including the introduction of **contemporary subjects** at relevant stages will be undertaken to develop various **important skills** in students at all levels.

These subjects will be :

Artificial Intelligence

Design Thinking

Holistic Health

Organic Living

Environmental Education

Global Citizenship Education (GCED), etc

MATHEMATICS AND MATHEMATICAL THINKING

Mathematical thinking does not mean that children solve only mathematics problems, but it is a way of thinking. **These are the ways we have to teach them.**

The approach should be to **understand every issue**, the **aspects of life mathematically and logically**, so that the brain can analyse in **different perspectives**.

It is recognized that **mathematics and mathematical thinking** will be very important for India's future and India's leadership role in the numerous upcoming fields and professions that will involve **artificial intelligence, machine learning, and data science**, etc.

Thus, mathematics and computational thinking will be given increased emphasis throughout the school years, starting with the foundational stage, through a variety of **innovative methods**, including the regular use of **puzzles and games** that make mathematical thinking more **enjoyable** and **engaging**.

Activities involving **CODING** will be introduced in Middle Stage.

LEARNING CODING

The future is going to be quite different from our present-day world today. We can see and feel its requirements right now. In such a scenario, we have to equip our students with the skills of the 21st century.

What will these 21st Century Skills be?

These will be:

- Critical Thinking
- Creativity
- Collaboration
- Curiosity
- Communication

Our students must understand the **sustainable future, sustainable science** and think in that direction. This is the need of the hour! It is very important.

Students should:

learn coding early in life,
understand

- Artificial Intelligence
- Internet of Things
- Cloud Computing
- Data Science
- Robotics

We have to ensure all of this.

VOCATIONAL CRAFTS

Every student will take a **fun course**, during **Grades 6-8**, that gives a survey (a general view) and hands-on experience of a sampling of **important vocational crafts**.

The vocational crafts include ...

carpentry
electric work
metal work
gardening
pottery making, etc.

A **practice-based curriculum** should be designed for Grades 6-8.

INTERNSHIP:

All students will participate in a **10-day bagless period sometime during Grades 6-8** where they **INTERN with local vocational experts** such as **carpenters, gardeners, potters, artists, etc.**

Similar **internship opportunities** to learn vocational subjects may be made available to students throughout **Grades 6-12**, including **holiday periods**.

Vocational courses through **online mode** will also be made available.

ENRICHMENT ACTIVITIES

Bagless days will be encouraged throughout the year for various types of enrichment activities involving

arts

quizzes

sports

vocational crafts

Children will be given **periodic exposure to activities outside school** through visits to:

- * places/monuments of historical
- * cultural and tourist importance
- * meeting local artists and craftsmen
- * visit higher educational institutions

Our experiments should be the guiding principle of the New Age learning --

Engage, Explore, Experience, Express, and Excel. Students ...

- * Should **engage** in activities, events and projects according to their interests.
- * Should **explore** it accordingly.
- * Learn these activities, events and projects from **experience** and with different perspectives. It can be their personal experience and collaborative experience as well.
- * Should learn to **express** themselves in a very constructive manner.
- * Will know that this is a way to **excel** when all these things are combined.

For example, we can take the children to hills, historical places, farms and safe manufacturing units.

COMPETITIONS

Competitions may be held in schools for **learning** various **topics** and **subjects** through **fun** and **indigenous games**.

LUMINARIES OF INDIA

Video documentaries on **inspirational luminaries of India**, ancient and modern, in **science** and **beyond**, to be shown at appropriate points throughout the school curriculum.

CULTURAL EXCHANGE PROGRAMMES

Students will be encouraged to **visit different States** as part of cultural exchange programmes.

KNOWLEDGE OF INDIA**KNOWLEDGE FROM ANCIENT INDIA**

“**Knowledge of India**” will include **knowledge from ancient India ...**

- * its **contributions to modern India**
- * its successes and challenges
- * a clear sense of India’s future aspirations regarding education, health, environment, etc.

These elements will be incorporated in an accurate and scientific manner throughout the school curriculum wherever relevant; in particular, **Indian Knowledge Systems**, including **tribal knowledge** and **indigenous and traditional ways of learning**, will be covered and included in **mathematics, astronomy, philosophy, yoga, architecture, medicine, agriculture, engineering, linguistics, literature, sports, games**, as well as in **governance, polity, conservation**.

Specific courses in tribal **ethno-medicinal practices, forest management, traditional (organic) crop cultivation, natural farming**, etc. will also be made available.

An **engaging course on Indian Knowledge Systems** will also be available to students in **secondary school** as an **elective**.
(An **elective course** is a **course** that you choose to take as part of your programme of study. Some programmes require you to choose your **elective** from a list of **courses**.)

And at the same time, we have to make our students **global citizens**.

Simultaneously, we also have to keep in mind that they stay **connected to their roots**.

The format of this national education policy has been decided after encompassing all points from **roots to the world**, from **man to mankind**, from **past to modernity**.

ETHICAL DECISIONS

Students will be taught at a young age the importance of “**doing what's right**” and will be given a **logical framework for making ethical decisions** (should wait for the framework from the Board.).

In later years, this would then be expanded along themes of **cheating, violence, plagiarism, littering, tolerance, equality, empathy, etc.**, with a view to enabling children:

- * to embrace moral/ethical values in conducting one's life,
- * formulate a position/argument about an ethical issue from multiple perspectives,
- * and use ethical practices in all works.

Children will have the opportunity **to read and learn from the original stories of:**

Panchatantra

Jataka

Hitopadesh

and other fun fables and inspiring tales from the

Indian tradition and learn about their **influences on global literature.**

As consequences of such **basic ethical reasoning, traditional Indian values** and all basic **human and Constitutional values** will be developed in all students.

- * **seva**
- * **ahimsa**
- * **swachchhata**
- * **satya**
- * **nishkam karma**
- * **shanti**
- * **sacrifice**
- * **tolerance**
- * **diversity**
- * **pluralism**
- * **righteous conduct**
- * **gender sensitivity**
- * **respect for elders**
- * **respect for all people and their inherent capabilities regardless of background**
- * **respect for environment**
- * **helpfulness**
- * **courtesy**
- * **patience**
- * **forgiveness**
- * **empathy**
- * **compassion**
- * **patriotism**
- * **democratic outlook**
- * **integrity**
- * **responsibility**
- * **justice**
- * **liberty**
- * **equality**
- * **fraternity**

INDIAN CONSTITUTION

Excerpts from the Indian Constitution will also be considered essential reading for all students.

HEALTH

Basic training in **health** will be included in the curriculum.

This will include **preventive health, mental health, good nutrition, personal and public hygiene.**

Basic training in **disaster response** will be part of the curriculum.

First-aid training will also be included in the curriculum.

Scientific explanations of the **detrimental and damaging effects** of **alcohol, tobacco, and other drugs** will be stressed in the curriculum.

INDIAN AND LOCAL CONTEXT AND ETHOS

All **curriculum and pedagogy**, from the foundational stage onwards, will be redesigned to be strongly rooted in the Indian and local context and ethos in terms of:

culture
traditions
heritage
customs
language
philosophy
geography
ancient and contemporary knowledge
societal and scientific needs
indigenous and traditional ways of learning etc.

in order to ensure that education is maximally **relatable, relevant, interesting**, and **effective** for our students.

The following will be chosen as much as possible to be rooted in the Indian and local geographic context.

stories
arts
games
sports
examples
problems, etc.

When learning is rooted, the **ideas, abstractions**, and **creativity** will indeed best flourish.

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging</p> <p>National Textbooks with Local Content and Flavour</p>
<p>NEP 2020</p>	<p>XI</p>

National Textbooks with Local Content and Flavour

The **reduction in content** and **increased flexibility of school curriculum** - and the **renewed emphasis on constructive learning** rather than rote learning - must be accompanied by parallel changes in school textbooks.

National Level

* All textbooks **shall AIM** to contain the **essential core material** (together with **discussion, analysis, examples, and applications**) deemed important on a **NATIONAL level**.

Local

* But at the same time contain any desired **nuances** (any slight differences) and **supplementary material** as per **LOCAL contexts and needs**.

Where possible, **schools and teachers will also have choices** in the textbooks they employ - from among a set of textbooks that contain the requisite national and local material - so that they may teach in a manner that is best suited to their **own pedagogical styles** as well as to **their students and communities' needs**.

Where possible, **schools and teachers will also have choices** in the textbooks they employ - from among a set of textbooks that contain the requisite national and local material - so that they may teach in a manner that is best suited to their **own pedagogical styles** as well as to **their students and communities' needs**.

Policy matter

States will prepare their own curricula (which may be based on the NCFSE prepared by NCERT to the extent possible) and prepare textbooks (which may be based on the NCERT textbook materials to the extent possible), incorporating State flavour and material as needed. While doing so, it must be borne in mind that NCERT curriculum would be taken as the nationally acceptable criterion.

The availability of such textbooks in all regional languages will be a top priority so that all students have access to high-quality learning.

Concerted efforts, through suitable changes in curriculum and pedagogy, will be made by NCERT, SCERTs, schools, and educators to significantly reduce the weight of school bags and textbooks.

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging</p> <p>Transforming Assessment for Student Development</p>
<p>NEP 2020</p>	<p>XII</p>

Transforming Assessment for Student Development

The **aim of assessment** in the culture of our schooling system will shift from one that is summative and primarily tests rote memorization skills to one that ...

is **more regular and formative**

is **more competency-based**

promotes learning and development

tests **higher-order skills**, such as

analysis,

critical thinking, and

conceptual clarity.

The primary purpose of assessment will indeed be for learning; it will help the teacher and student, and the entire schooling system, **continuously revise teaching-learning processes** to optimize learning and development for all students. **This will be the underlying principle for assessment at all levels of education.**

PROGRESS CARD

The progress card will be a **holistic, 360-degree, multidimensional** report that **reflects** in great detail the **progress** as well as the **uniqueness** of each learner in the **cognitive, affective, and psychomotor domains**.

- * **affective skills** relate to behaviors and attitudes that students need to learn in order to be effective in their personal and professional lives
- * the **psychomotor domain** includes **physical** movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of **speed, precision, distance, procedures, or techniques** in **execution**

It will include self-assessment and peer assessment, and progress of the child in **project-based and inquiry-based learning, quizzes, role plays, group work, portfolios, etc.**, along with teacher assessment.

The holistic progress card will form an **important link between home and school** and will be accompanied by parent-teacher meetings in order to actively involve parents in their children's holistic education and development.

The progress card would also provide teachers and parents with **valuable information on how to support each student** in and out of the classroom.

AI-based software could be developed and used **by students** to help **track** their **growth** through **their school years** based on **learning data** and **interactive questionnaires** for parents, students, and teachers, in order to provide students with valuable information on their **strengths**, areas of **interest**, and **needed areas of focus**, and to **thereby help them make optimal career choices**.

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS NEP 2020</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging</p> <p>Board Exams</p>
<p>XIII</p>	

The **current nature of secondary school exams**, including Board exams and entrance exams - and the resulting coaching culture of today - are doing much harm, especially at the **secondary school level, replacing valuable time for true learning** with excessive exam coaching and preparation.

These exams also force students to learn a very narrow band of material in a single stream, rather than allowing the flexibility and choice that will be so important in the education system of the future.

While the **Board exams for Grades 10 and 12 will be continued**, the existing system of Board and entrance examinations shall be reformed to **eliminate the need for undertaking coaching classes.**

To reverse the harmful effects of the current assessment system, **Board exams will be redesigned to encourage holistic development.**

Students will be able to choose many of the subjects in which they take Board exams, depending on their individualized interests.

Board exams will also be made '**easier**', in the sense that they will test primarily **core capacities/competencies** rather than months of coaching and memorization; any student who has been going to and making a **basic effort in a school class will be able to pass and do well in the corresponding subject Board Exam** without much additional effort.

Best of Two Attempts: To further eliminate the 'high stakes' aspect of Board Exams, all **students will be allowed to take Board Exams on up to two occasions during any given school year, one main examination and one for improvement**, if desired.

Core Capacities: In addition to introducing greater flexibility, student choice, and best-of-two attempts, **assessments that primarily test core capacities** must be the immediate key reforms to all Board exams.

Boards may over time also develop further viable models of Board Exams that reduce pressure and the coaching culture.

Some possibilities include:

Annual/Semester/Modular: a system of **annual/semester/modular** Board Exams could be developed - that each tests **far less material**, and are taken immediately after the corresponding course is taken in school - so that the **pressure from exams** is better **distributed, less intense, and less high stakes** across the Secondary Stage

Two Levels: all **subjects and corresponding assessments**, beginning with mathematics, could be offered at **two levels**, with students doing some of their subjects at the **standard level** and some at a **higher level**

Two Parts: Board exams in certain subjects could be redesigned to have **two parts** – one part of an **objective type** with **multiple-choice questions** and the other of a **descriptive type**

GRADES 3, 5 & 8 SCHOOL EXAMS

To track progress throughout the school years, and not just at the end of Grades 10 and 12 - for the benefit of students, parents, teachers, principals, and the entire schooling system in planning improvements to schools and teaching-learning processes - **all students will take school examinations in Grades 3, 5, and 8** which will be conducted by the appropriate authority.

These examinations would test achievement of **basic learning outcomes**, through assessment of **core concepts** and **knowledge** from the **national and local curricula**, along with relevant **higher-order skills** and **application of knowledge in real-life situations**, rather than rote memorization.

The Grade 3 examination, in particular, would test **BASIC literacy, numeracy**, and other **foundational skills**.

Purpose of School examinations: The results of school examinations will be used only for **developmental purposes** of the **school education system**, including for public disclosure by schools of their **overall (anonymized) student outcomes**, and for **continuous monitoring and improvement of the schooling system**.

POLICY RELATED : It is proposed to set up a National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development), as a standard-setting body under MHRD that fulfils the basic objectives of setting norms, standards, and guidelines for student assessment and evaluation for all recognized school boards of India, guiding the State Achievement Survey (SAS) and undertaking the National Achievement Survey (NAS), monitoring achievement of learning outcomes in the country, and encouraging and helping school boards to shift their assessment patterns towards meeting the skill requirements of the 21st century in consonance with the stated objectives of this Policy.

This Centre will also advise school boards regarding new assessment patterns and latest researches, promote collaborations between school boards. It will also become an instrument for the sharing of best practices among school boards, and for ensuring equivalence of academic standards among learners across all school boards.

UNIVERSITY ENTRANCE EXAMS

- * The principles for **university entrance exams** will be similar.
- * The National Testing Agency (NTA) will work to offer a **high-quality common aptitude test**, as well as **specialized common subject exams** in the sciences, humanities, languages, arts, and vocational subjects, **at least twice every year**.
- * These exams shall test **conceptual understanding** and the **ability to apply knowledge** and shall aim to eliminate the need for taking coaching for these exams.

Students will be **able to choose the subjects for taking the test**, and each **university** will be able to see **each student's individual subject portfolio** and admit students into their programmes **based on individual interests and talents**.

What is a STUDENT PORTFOLIO?

A student portfolio is a compilation of academic work and other forms of educational evidence assembled for the purpose of (1) evaluating coursework quality, learning progress, and academic achievement; (2) determining whether students have met learning standards or other academic requirements for courses, grade-level promotion, and graduation; (3) helping students reflect on their academic goals and progress as learners; and (4) creating a lasting archive of academic work products, accomplishments, and other documentation.

POLICY RELATED:

- 1) The NTA will serve as a premier, expert, autonomous testing organization to conduct entrance examinations for undergraduate and graduate admissions and fellowships in higher education institutions. The high quality, range, and flexibility of the NTA testing services will enable most universities to use these common entrance exams - rather than having hundreds of universities each devising their own entrance exams - thereby drastically reducing the burden on students, universities and colleges, and the entire education system. It will be left up to individual universities and colleges to use NTA assessments for their admissions.
- 2) Guidelines will be prepared by NCERT, in consultation with major stakeholders, such as SCERTs, Boards of Assessment (BoAs), the proposed new National Assessment Centre etc., and teachers prepared, for a transformation in the assessment system by the 2022-23 academic session, to align with the NCFSE 2020-21.

<p>Dr. Kishore's RATNAM GEN NEXT SCHOOLS</p>	<p>Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging</p> <p>Support for Gifted Students / Students with Special Talents</p>
<p>NEP 2020</p>	<p>XIV</p>

- * There are **innate talents in every student**, which must be discovered, nurtured, fostered, and developed.
- * These talents may express themselves in the form of varying interests, dispositions, and capacities.
- * Those students that show particularly strong interests and capacities in a given realm must be encouraged to pursue that realm beyond the general school curriculum.

- * Teacher education will include methods for the recognition and fostering of such student talents and interests.
- * The NCERT and NCTE will develop guidelines for the education of gifted children.
- * B.Ed. programmes may also allow a specialization in the education of gifted children.

- * Teachers will aim to encourage students with singular interests and/or talents in the classroom by giving them **supplementary enrichment material** and **guidance** and **encouragement**.

TOPIC-CENTERED AND PROJECT-BASED CLUBS AND CIRCLES

Topic-centered and Project-based Clubs and Circles should be encouraged and supported. **Examples include ...**

- Science Circles
- Math Circles
- Music & Dance Performance Circles
- Chess Circles
- Poetry Circles
- Language Circles
- Drama Circles
- Debate Circles
- Sports Circles
- Eco-Clubs
- Health & Well-being Clubs
- Yoga Clubs and so on

NATIONAL RESIDENTIAL SUMMER PROGRAMMES

High-quality national residential summer programmes for secondary school students in various subjects will also be encouraged, with a **rigorous merit-based** but **equitable admission process** to attract the **very best students** and **teachers** from across the country including from socio-economically disadvantaged groups.

OLYMPIADS & COMPETITIONS

- * **Olympiads and competitions** in various subjects will be conducted across the country, with **clear coordination and progression** from **school to local to state to national levels**, to ensure that all students may participate at all levels for which they qualify.
- * Efforts will be made to make these available in rural areas and in regional languages to ensure widespread participation.

UNIVERSITY ADMISSIONS

Public and private universities, including premier institutions like the IITs and NITs, would be encouraged to use **merit-based results** from **National, and International Olympiads**, and **results** from other **relevant national programmes**, as part of the **criteria for admissions** into their **undergraduate programmes**.

DIGITAL HELP

Online apps with quizzes, competitions, assessments, enrichment materials, and online communities for shared interests will enhance all the **aforementioned initiatives**, as group activities for students with appropriate supervision of parents and teachers.

SMART CLASSROOMS: Smart classrooms can use digital pedagogy and thereby enrich the teaching-learning process with online resources and collaborations.