



Ministry of Education  
Government of India



# NAS

National Achievement Survey

# 2021

**BENGALURU RURAL**  
(KARNATAKA)

**DISTRICT REPORT CARD**

# About NAS

NAS is a system level assessment i.e. it summarizes students achievement at National, State/UT and District levels.

The National Achievement Survey (NAS) is a national level large-scale assessment conducted to obtain information about the learning achievement of students of Classes 3, 5, 8 and 10 studying in State Govt. schools, Govt. Aided schools, Private Unaided and Central Govt. schools. NAS does not provide scores for individual student/school.

It is a national representative survey that provides a system level reflection on effectiveness of school education. NAS findings help compare the performance across the spectrum and across population which may serve as input to move in the desirable direction and areas for remedial interventions.

NAS is embedded in an extremely rich system of background variables. This survey correlates students performance with contextual variables. NAS is useful for educational planners and policy makers including researchers in understanding the interdependence of assessment, pedagogical process and learning outcomes. NAS 2021 focused on competency-based assessment. It was conducted in Language, Mathematics & Environmental Studies for class 3 & 5; Language, Mathematics, Science & Social Science for class 8 and Modern Indian Language, Mathematics, Science, Social Science and English for class 10.

For effective monitoring and nation-wide coordination, a National Steering Committee was constituted by the Ministry. While the NCERT was entrusted with the task of development of Assessment Framework, the administration of NAS 2021 was entrusted to the CBSE. Grade-wise subject specific Learning Outcomes were identified by the NCERT for development of the items for assessment. Sampling being a crucial aspect of assessment, the NAS 2021 sampling design was intended to support the predefined objectives of the assessment. The sampling note on which the sample has been selected for NAS 2021 is also available on the MoE website. The States, Districts and School level samples were based on UDISE+2019-20

data. Nearly, 3.4 million students from approximately 1.18 lakh schools were administered the survey. A dedicated Portal (<https://nas.education.gov.in>) was launched by the NIC with login access for functionaries and role-based functionality for managing resources, activity monitoring, reporting & documentation etc. Extensive training and capacity building was done for the field operatives using short and self-narrative videos in a blended mode. For a hassle-free and fair conduct of NAS, an integrated framework with operational salience was in place. The survey was conducted in a monitored environment.

Around 2 lakh Field Investigators (FIs), 1.24 lakh Observers, 36 State Nodal Officers, 733 District Level Coordinators and District Nodal Officers were engaged. Board Representatives were appointed for ensuring fair conduct of NAS. The pre-mapping of Test and background questionnaire tools using UDISE code, confidentiality at all stages, Just-in-Time delivery of papers in sealed trunks, school-specific packing for transit security, self-learning materials for functionaries in login, 3-tier supervision, machine- based random deployment, documentations in the form of control sheet, field note for FI and observer, district note and update on portal were some of the strategic arrangements that were in place for the smooth administration of NAS.

Out of 733 targeted districts, the NAS-2021 was conducted in 720 districts on 12th November 2021 except some districts of Tamil Nadu and Andhra Pradesh due to natural calamity.

This report would help diagnose learning gaps and determine interventions necessary in education policies, teaching practices and learning. The synthesis of the results at the national level would prove to be a rich repository of evidence for developing and designing the future course of action for the Indian education system.

धर्मेन्द्र प्रधान  
धर्मेन्द्र प्रधान  
**Dharmendra Pradhan**



मंत्री  
शिक्षा; कौशल विकास  
और उद्यमशीलता  
भारत सरकार

**Minister**  
**Education; Skill Development**  
**& Entrepreneurship**  
**Government of India**



## MESSAGE

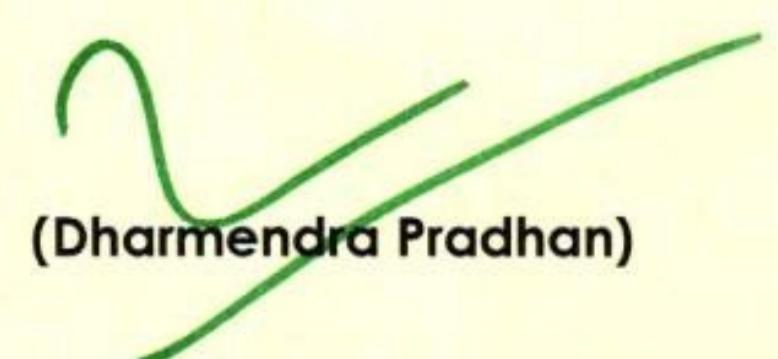
It is indeed a great opportunity to share the National Report of National Achievement Survey (NAS) 2021 as it will help States and UTs in identifying the gaps in learning outcomes and provide strong foundation to design and implement the outcome based interventions.

NAS 2021 reflects the overall health of the education system at the National, State and District level. As you are aware that despite various challenges faced during the pandemic of COVID-19, NAS was conducted on 12th November, 2021 across the country in collaboration with the States and UTs.

The findings of the survey are crucial for understanding the achievement of student's learning outcomes and attainment of grade level competencies. Further, the data collected through this achievement survey will help to understand the impact of multi-faceted learning approach adopted during the pandemic and its effectiveness on children particularly from socio-economic disadvantaged background.

I am sure this report will guide education planners and policy makers including researchers to understand the grade-wise level of learning outcomes and pedagogical processes to induce improvement in the quality of education in the country.

I also take this opportunity to convey my best wishes and heartfelt gratitude to the stakeholders who were involved in this endeavor, especially all the children, parents and community members who had supported this survey and contributed towards its success.



(Dharmendra Pradhan)

सबको शिक्षा, अच्छी शिक्षा



कौशल भारत, कुशल भारत



अन्नपूर्णा देवी  
ANNPURNA DEVI



राज्य मंत्री  
शिक्षा मंत्रालय  
भारत सरकार  
MINISTER OF STATE  
FOR EDUCATION  
GOVERNMENT OF INDIA



## MESSAGE

I am glad to learn that the National Report of National Achievement Survey (NAS) 2021 based on assessment conducted for Classes III, V, VIII and X is being brought out. The feat of conducting the NAS 2021 throughout the nation on a single day on 12<sup>th</sup> November, 2021 is commendable. The data for NAS 2021 was collected from around 34 lakh children, more than 5 lakh teachers from 1,18,274 schools in 720 districts across the country. The objective of NAS 2021 is to evaluate children's progress and learning competencies as an indicator of the health of the education system, so as to take appropriate steps for remedial actions at different levels.

I am sure that the data generated in this survey will be fruitfully used in analyzing and understanding the education system of the country in a more effective way. Assessment of the students based on learning outcomes will equip them for the knowledge & skill requirements of the 21<sup>st</sup> century. This will help in achieving the goals envisaged in the NEP-2020 in their letter & spirit.

I hope that the report will be useful for policy planners, researchers and all other stakeholders in understanding students' learning levels and thereby improving the quality of school education in the entire country.

I convey my best wishes to the team in this endeavour.

*Annpurna Devi*  
(ANNPURNA DEVI)



अनीता करवल, मा.प्र.से  
सचिव

Anita Karwal, IAS  
Secretary



स्कूल शिक्षा और साक्षरता विभाग  
शिक्षा मंत्रालय  
भारत सरकार

Department of School Education & Literacy  
Ministry of Education  
Government of India



### MESSAGE

We are happy to release the report of the National Achievement Survey (NAS) which was conducted throughout the nation on a single day for Classes 3, 5, 8 and 10 on 12<sup>th</sup> November, 2021. The data for NAS 2021 was collected from around 34 lakh children, more than 5 lakh teachers from 1,18,274 schools in 720 districts across the country. The conduct of NAS represents the systematic process of collecting data, starting from development of assessment framework tools, sampling, data analysis procedures and interpreting survey data.

Rather than assessing the children on rote memorization ability, NAS 2021 focused on assessing the competency-based skills, which focuses on children to develop the competencies to analyse, reason and communicate their ideas effectively and build their capacity for being a life-long learner. NAS 2021 reports will be effectively used in analyzing and understanding the education system of the country by focusing on the achievement of the students in various grades and through subject specific Learning Outcomes

To provide the insight into educational attainment at different levels, 37 detailed State Learning Reports and 720 District Report Cards are also being released along with the National Report. I expect that in-depth deliberations by the respective States, UTs and Districts on the survey findings will guide them to plan effectively for achieving the goals and improving quality of education in the country. I sincerely hope that these findings of the survey will provide guidance to the teachers, educational personnel at different levels and in particular, policy makers to take evidence driven steps for the overall improvement in the education system.

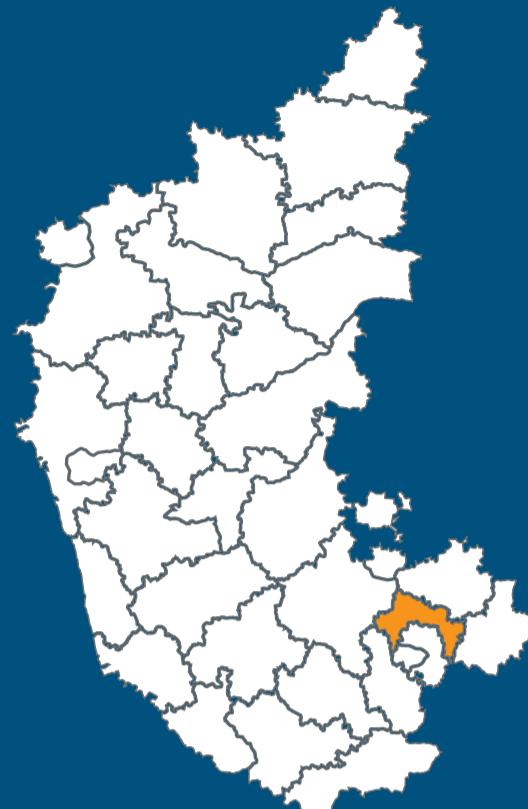
I extend my best wishes to the all the team members in this endeavor.

A handwritten signature in blue ink, which appears to read 'Anita Karwal'. Below the signature, the name '(Anita Karwal)' is printed in a smaller, bold, black font.

124 'सी' विंग, शास्त्री भवन, नई दिल्ली-110001  
124 'C' Wing, Shastri Bhawan, New Delhi-110001  
Telephone: +91-11-23382587, +91-11-23381104 Fax : +91-11-23387589  
E-mail: secy.sel@nic.in

# BENGALURU RURAL

(Karnataka)



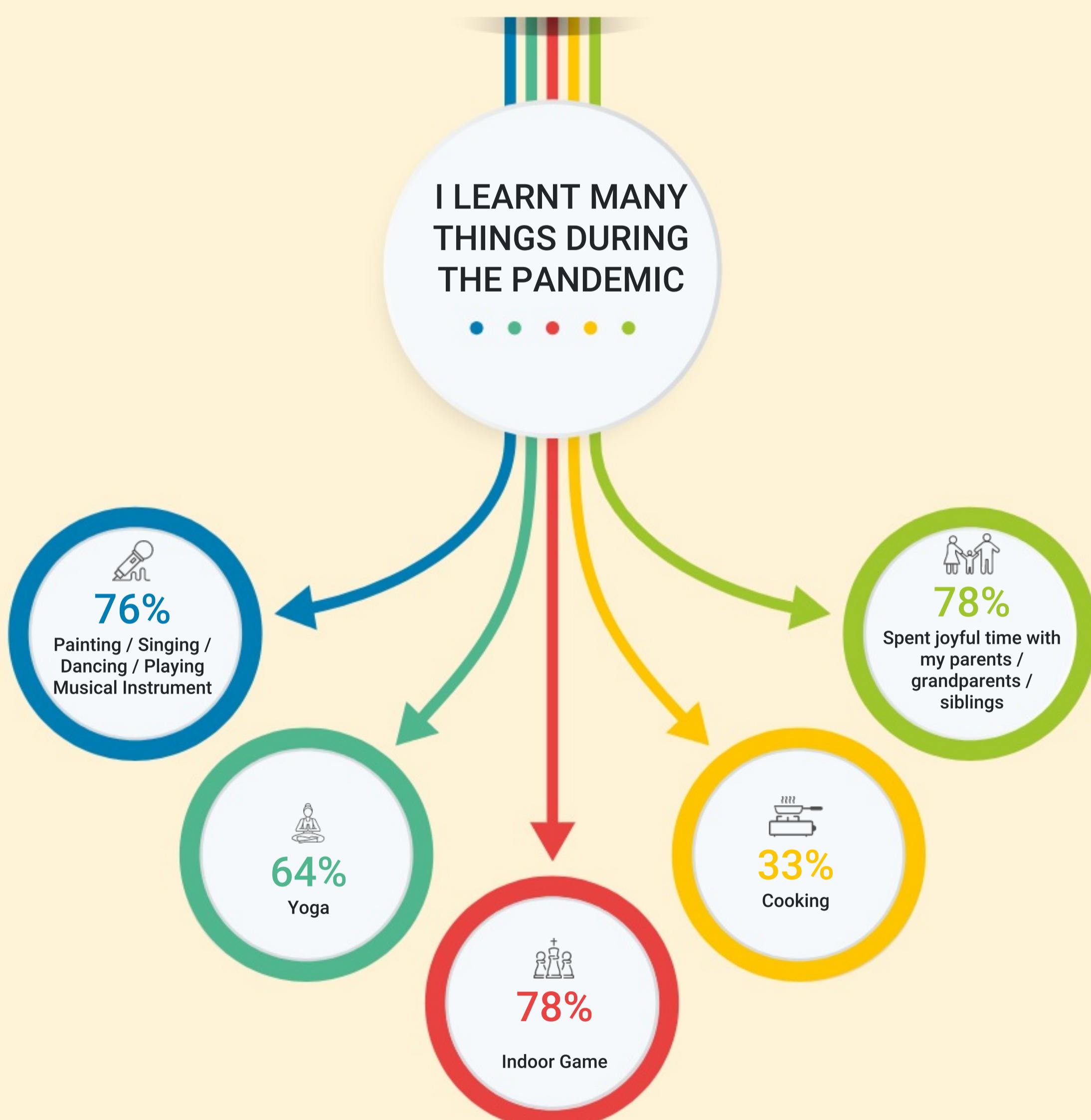
**Demographic profile of the district** (Source: Census of India, 2011)

Total District Area <b>2,298 sq. km.</b>	Total Population <b>9,90,923</b>	Rural Population <b>7,22,179</b>	Urban Population <b>2,68,744</b>
Density of Population <b>431 per sq. km.</b>	Literacy Rate <b>77.93%</b>	Child Sex Ratio (0-6 Years) <b>950</b>	

**Educational profile of the district** (Source: UDISE+ 2020-21)

Total Number of Schools <b>1,544</b>	Total Number of Teachers <b>7,698</b>
State Govt. Schools <b>1,161</b>	State Govt. Teachers <b>3,821</b>
Govt. Aided Schools <b>70</b>	Govt. Aided Teachers <b>434</b>
Central Govt. Schools <b>1</b>	Central Govt. Teachers <b>24</b>
Private Un-aided Recognized Schools <b>312</b>	Teachers In Private Un-aided Recognized Schools <b>3,419</b>

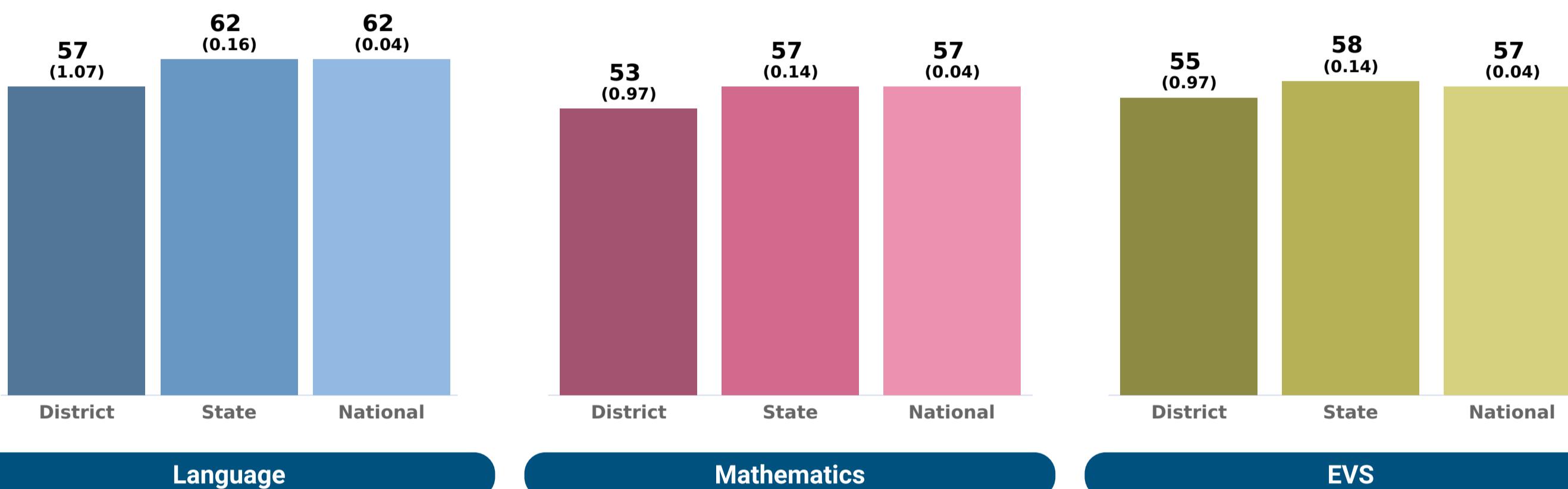
# NAS 2021 RESULTS FOR Class 3



## Total Participation



## District Performance of Students vis-a-vis State and National in percent correct (standard error)



## Percentage of Students by Performance Level

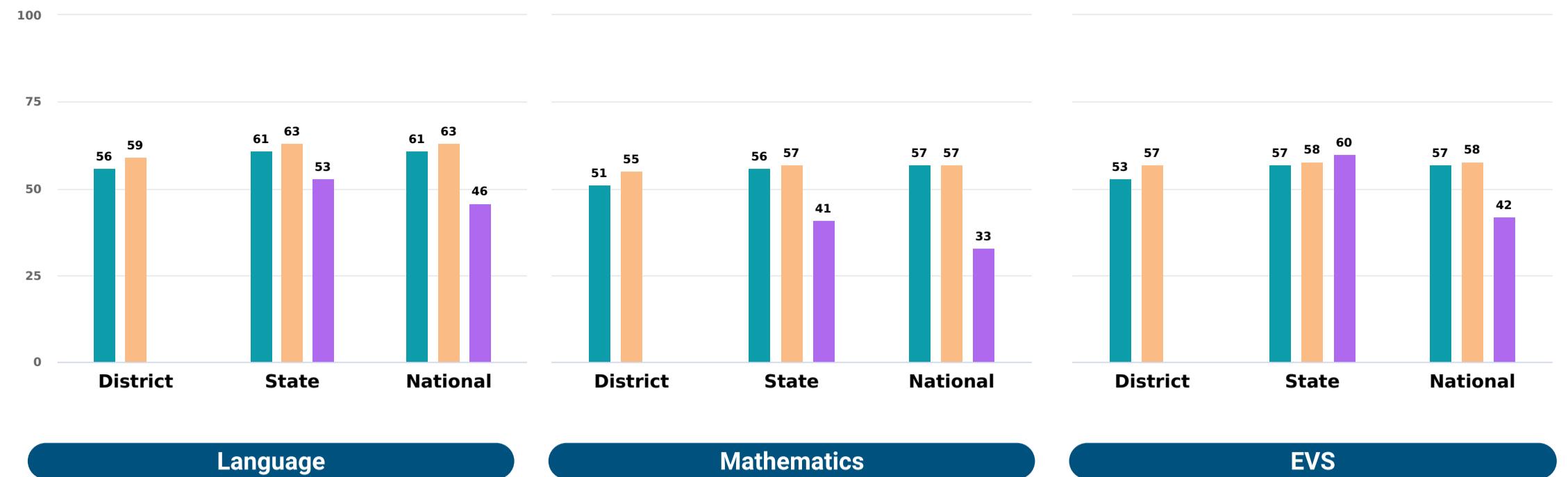
	Below basic	Basic	Proficient	Advanced
Language	41	22	21	16
Mathematics	30	32	26	12
EVS	30	29	30	11

Below Basic	Learners at this level are at the early stages of development regarding the curriculum standards. They have not achieved the required knowledge and skill to be considered minimally successful regarding curriculum demands. They need guidance at every stage of learning. They need a lot of encouragement and support.
Basic	Learners at this level demonstrate a minimum level of knowledge and skills related to the curricular demands. They can follow simple instructions and apply simple rules to achieve the expected performance. They have ideas but lack coherence. They can solve problems using simple logic, and also express themselves using simple language. They need enough guidance at various stages of learning.
Proficient	Learners at this level have acquired most of the learning outcomes and skills required by the curriculum. They can work independently with minimum supervision. They have a systematic methodology to solve problems. They can communicate their ideas clearly. They can also connect different ideas and create meaning with minimum guidance and supervision. They can analyze situations and interpret information for application in new situations. Efforts are required to bring all learners to attain the proficient level and above.
Advanced	Learners at this level display exceptional mastery of the learning content as prescribed by the curriculum and beyond. They are independent with high analytical, reflective and critical thinking. They can connect and integrate concepts and ideas to create new knowledge/meaning and solve complex problems. They communicate information with the highest level of creativity and coherence as well as make sound judgements.

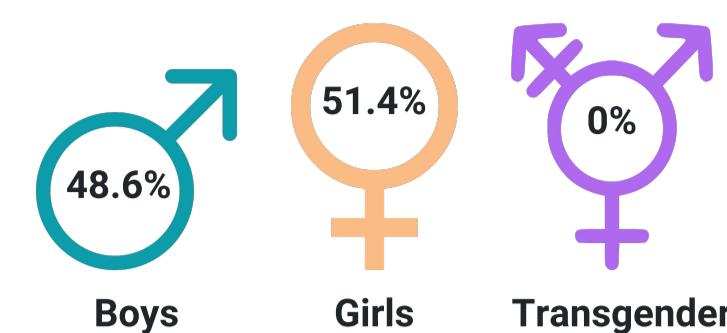
\* EVS - Environmental Studies

## Performance by Gender (in percent correct)

Boys Girls Transgender

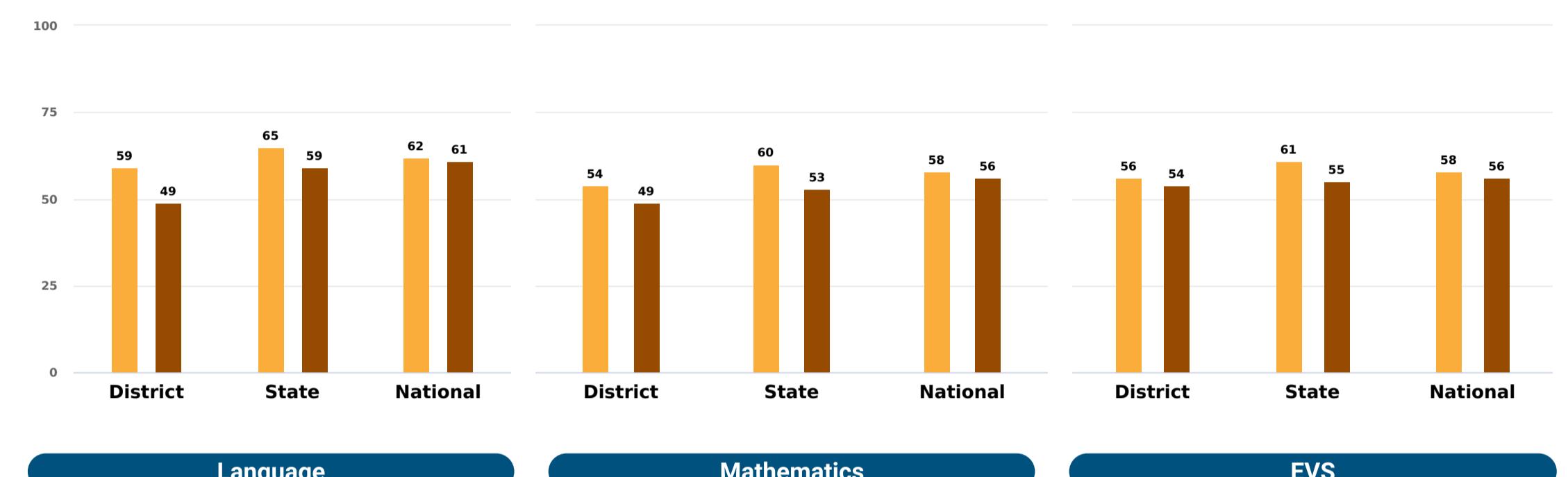


## Participation by Gender

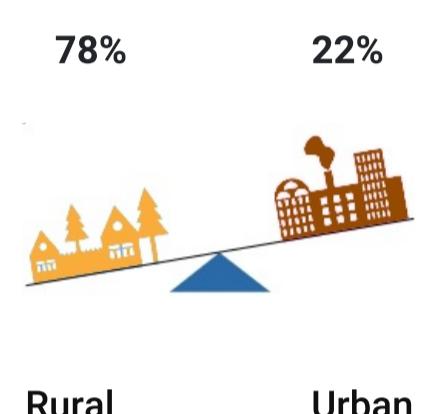


## Performance by Location (in percent correct)

Rural Urban

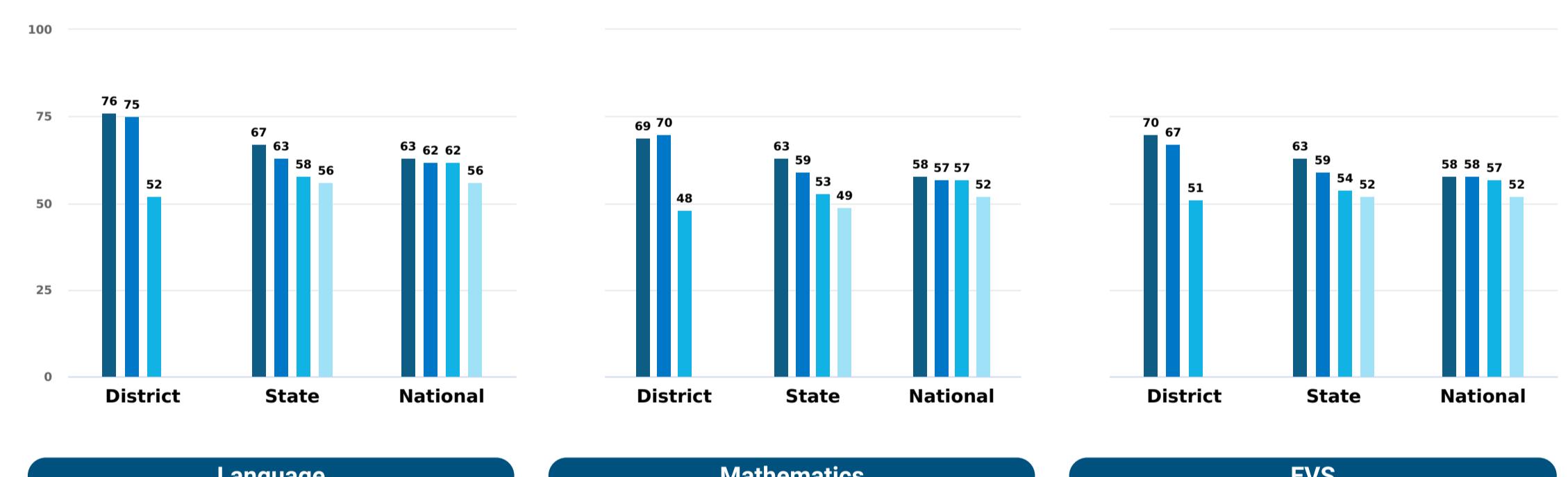


## Participation by Location

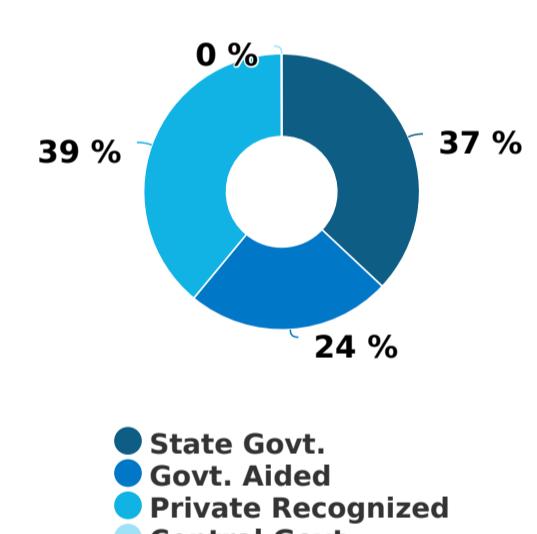


## Performance by Management (in percent correct)

State Govt. Govt. Aided Private Recognized Central Govt.

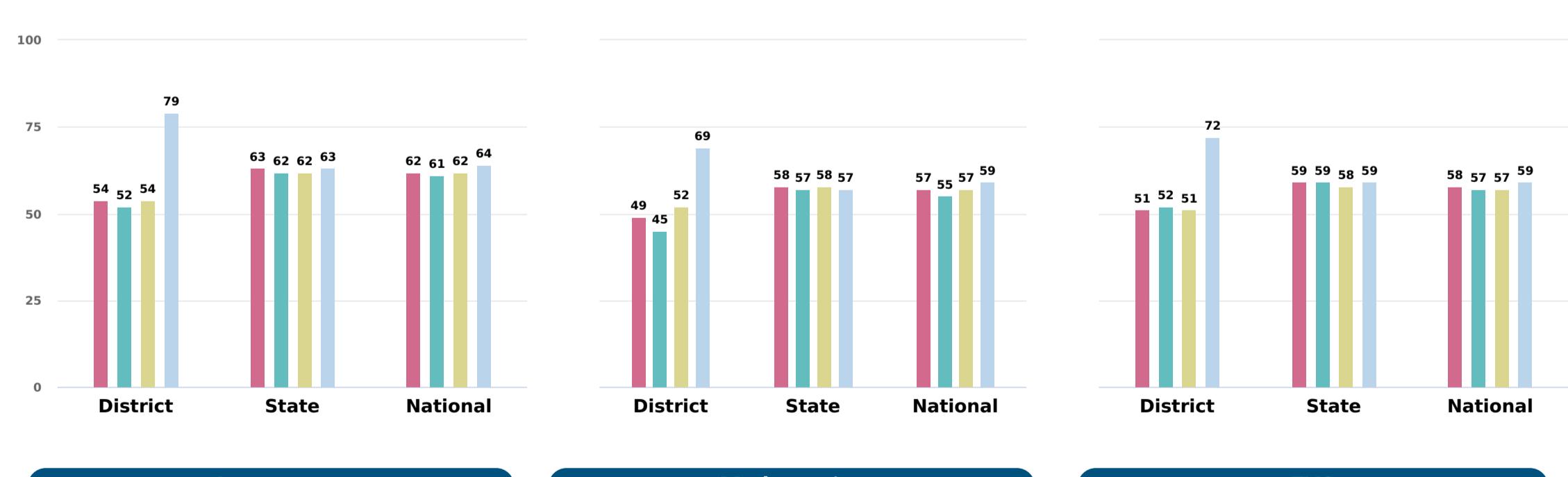


## Participation by Management



## Performance by Social Group (in percent correct)

SC ST OBC General



## Participation by Social Group



## Performance of the District in Achieving Learning Outcomes (LOs)

LO Code	Learning Outcomes for Class 3	District Average Performance	State Average Performance	National Average Performance
Language				
L304	Reads small texts with comprehension i.e., identifies main ideas, details, sequence and draws conclusions	59	63	64
L312	Reads printed scripts on the classroom walls: poems, posters, charts etc.	55	59	58
Mathematics				
M301	Reads and writes numbers up to 999 using place value	42	45	45
M302	Compares numbers up to 999 based on their place values	66	71	70
M303	Solves simple daily life problems using addition and subtraction of three digit numbers with and without regrouping	49	53	53
M304	Constructs and uses the multiplication facts (up till 10) in daily life situations	55	61	61
M305	Analyses and applies an appropriate number operation in the situation/ context	49	54	53
M306	Explains the meaning of division facts by equal grouping/sharing and finds it by repeated subtraction	41	49	47
M309	Identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc.	38	46	43
M311	Fills a given region leaving no gaps using a tile of a given shape	55	55	56
M312	Estimates and measures length and distance using standard units like centimeters or meters & identifies relationships	47	52	50
M317	Reads the time correctly to the hour using a clock/watch	65	70	71
M318	Extends patterns in simple shapes and numbers	53	55	56
M319	Records data using tally marks, represents pictorially and draws	47	52	53
EVS				
EVS302	Identifies simple features (e.g. movement, at places found/ kept, eating habits, sounds) of animals and birds in the immediate surroundings.	64	65	62
EVS303	Identifies relationships with and among family members	51	53	51
EVS304	Identifies objects, signs (vessels, stoves, transport, means of communication, transport, signboards etc.), places (types of houses/shelters, bus stand, petrol pump etc.) activities (works people do, cooking processes, etc.) at home/school/ neighborhoods	61	65	65
EVS305	Describes need of food for people of different age groups, animals/birds, availability of food and water and use of water at home and surroundings.	53	52	52
EVS307	Groups objects, birds, animals, features, activities according to differences/ similarities using different senses. (e.g. appearance/place of living/ food/ movement/ likes-dislikes/ any other features)	59	63	63
EVS309	Identifies directions, location of objects/places in simple maps using signs/symbols/ verbally	66	66	66
EVS310	Guesses properties, estimates quantities of materials/activities in daily life and verifies using symbols/non-standard units	65	67	67
EVS311	Records observations, experiences, information on objects/activities/places visited in different ways and predicts patterns etc	51	53	54
EVS313	Observes rules in games (local, indoor, outdoor)	41	42	43
EVS314	Voice opinion on good/bad touch, stereotypes for tasks/play/food in family w.r.t gender, misuse/wastage of food and water in family and school.	56	63	63



Average performance less than 50 percent

## What students have to say

**97%**

Students like to go to school

**69%**

Students use same language at home as medium of instruction in the class

**95%**

Students could understand, what teachers teach in the class

**76%**

Students go out and play during games period

**72%**

Students have access to digital devices in the school

**57%**

Students have internet connectivity at home

**78%**

Student get parental support for their educational achievement

## What teachers have to say

**45%**

Teachers have adequate instructional material and supplies

**66%**

Teachers have adequate work space

**39%**

Teachers say that they are overloaded with the work

**20%**

Teachers have responded that the school building needs significant repair

**10%**

Teachers have responded that there is lack of drinking water facilities in school

**7%**

Teachers have responded that there are inadequate toilet facilities in school

**56%**

Teachers participated in professional development program

**88%**

Teachers have responded that the parents take interest in school activities

**100%**

Teachers know the protocol for COVID symptoms reporting

**100%**

Teachers are aware of school reopening guidelines

**100%**

Measures to be taken for wellbeing of children and school staff

## What head teachers have to say

**88%**

of head teachers responded that schools have adequate qualified teaching staff

**55%**

of head teachers responded that schools have adequate supporting staff

**51%**

of head teachers responded that schools have adequate audio visual resources

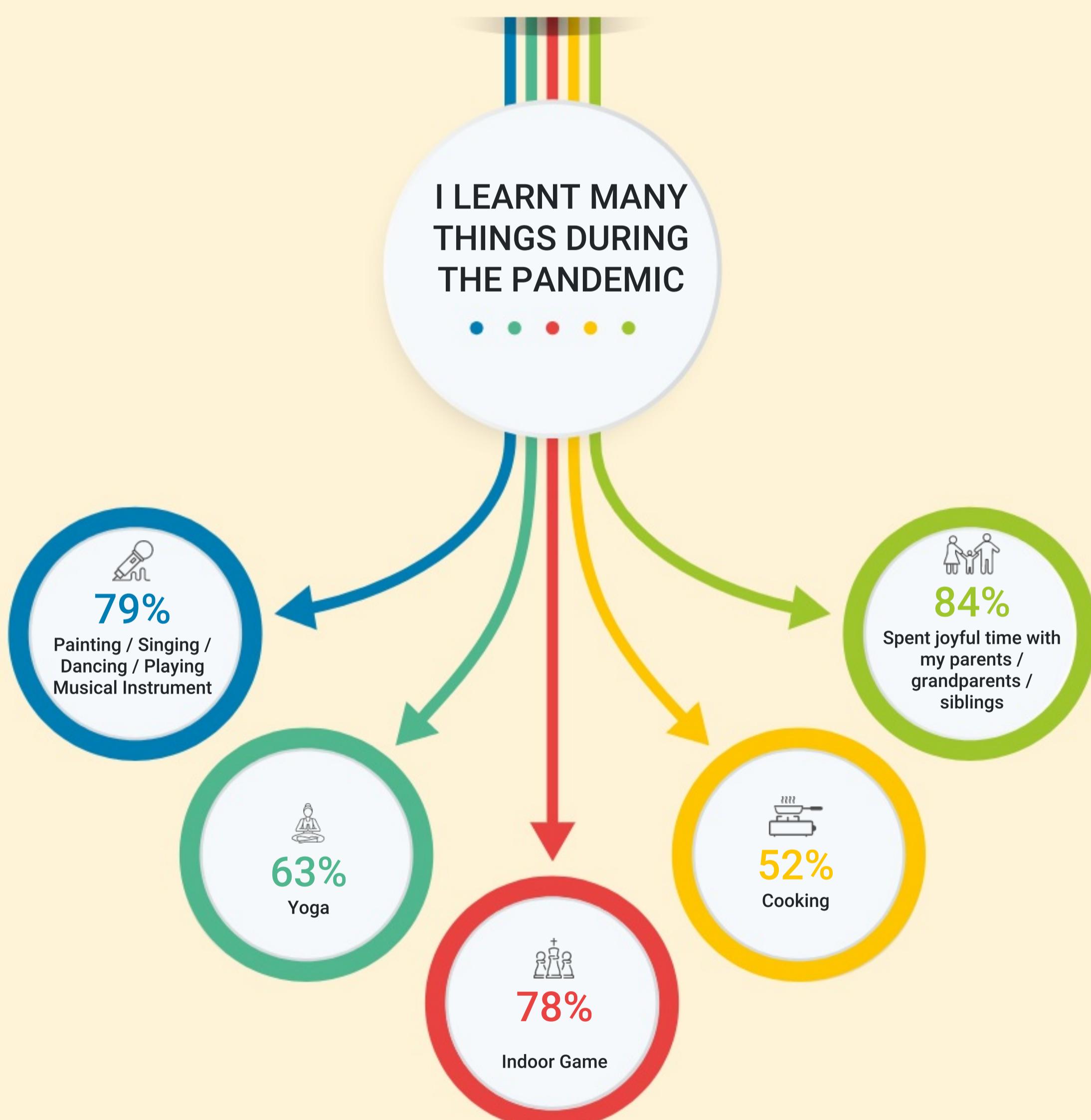
**73%**

of head teachers responded that schools have adequate library resources

**96%**

of head teachers responded that schools participate in sports activities

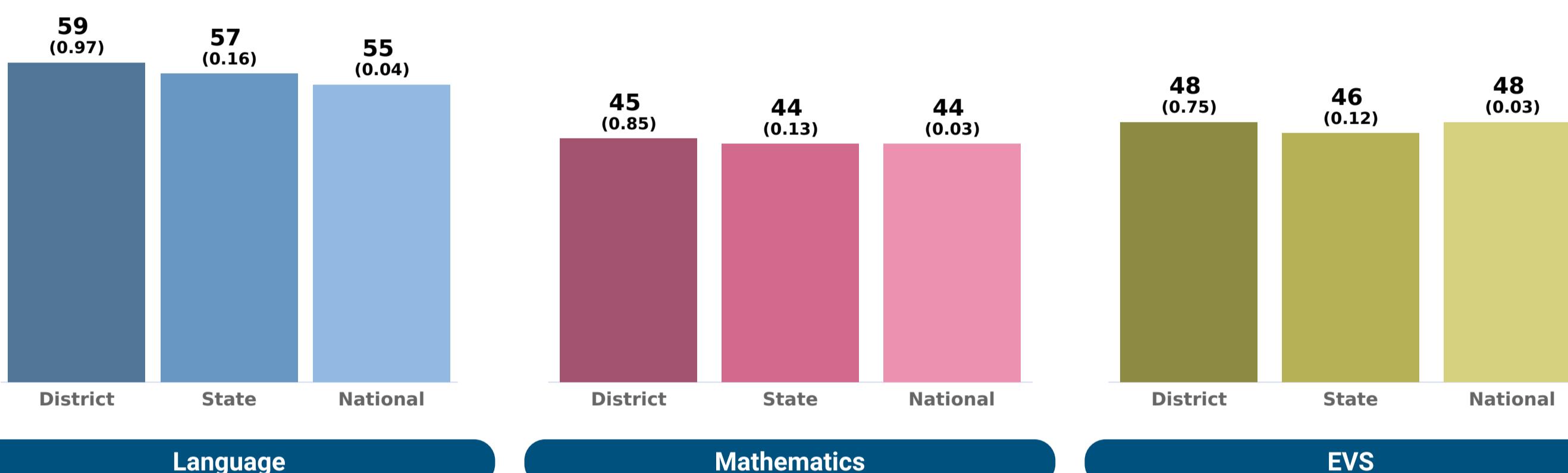
# NAS 2021 RESULTS FOR Class 5



## Total Participation



## District Performance of Students vis-a-vis State and National in percent correct (standard error)



## Percentage of Students by Performance Level

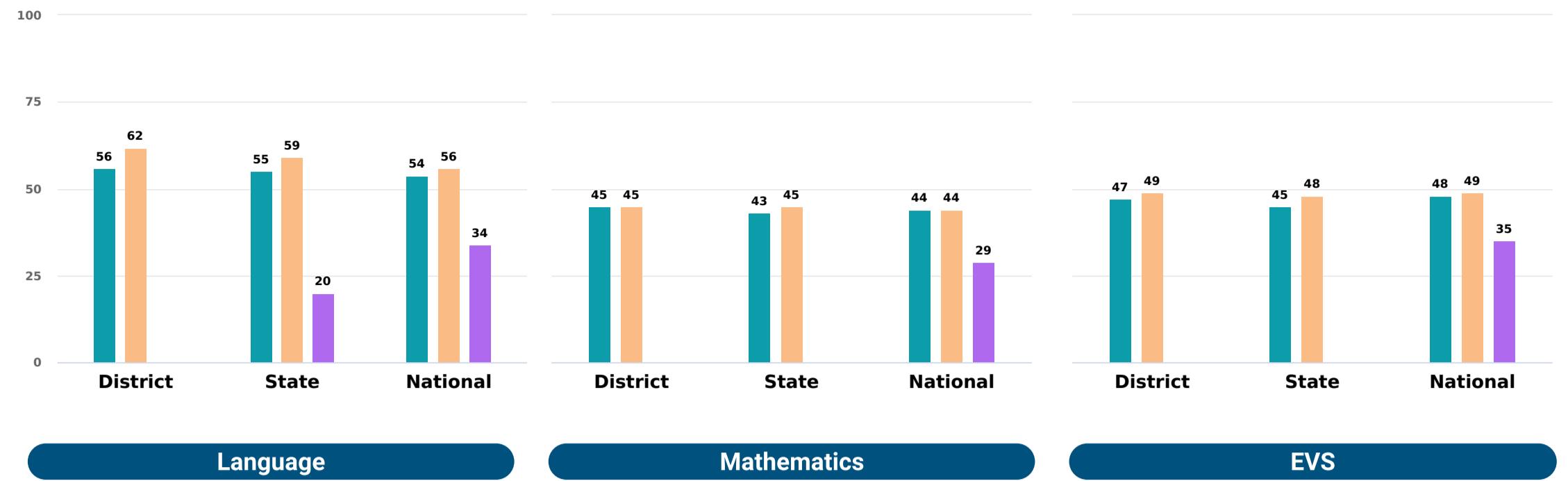
	Below basic	Basic	Proficient	Advanced
Language	20	32	27	20
Mathematics	34	42	16	8
EVS	38	31	22	10

Below Basic	Learners at this level are at the early stages of development regarding the curriculum standards. They have not achieved the required knowledge and skill to be considered minimally successful regarding curriculum demands. They need guidance at every stage of learning. They need a lot of encouragement and support.
Basic	Learners at this level demonstrate a minimum level of knowledge and skills related to the curricular demands. They can follow simple instructions and apply simple rules to achieve the expected performance. They have ideas but lack coherence. They can solve problems using simple logic, and also express themselves using simple language. They need enough guidance at various stages of learning.
Proficient	Learners at this level have acquired most of the learning outcomes and skills required by the curriculum. They can work independently with minimum supervision. They have a systematic methodology to solve problems. They can communicate their ideas clearly. They can also connect different ideas and create meaning with minimum guidance and supervision. They can analyze situations and interpret information for application in new situations. Efforts are required to bring all learners to attain the proficient level and above.
Advanced	Learners at this level display exceptional mastery of the learning content as prescribed by the curriculum and beyond. They are independent with high analytical, reflective and critical thinking. They can connect and integrate concepts and ideas to create new knowledge/meaning and solve complex problems. They communicate information with the highest level of creativity and coherence as well as make sound judgements.

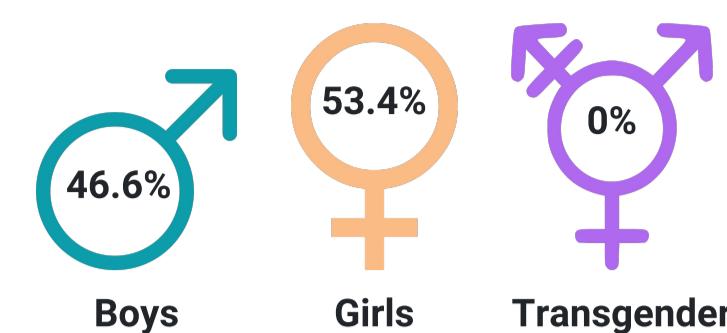
\* EVS - Environmental Studies

## Performance by Gender (in percent correct)

Boys (Teal) Girls (Orange) Transgender (Purple)

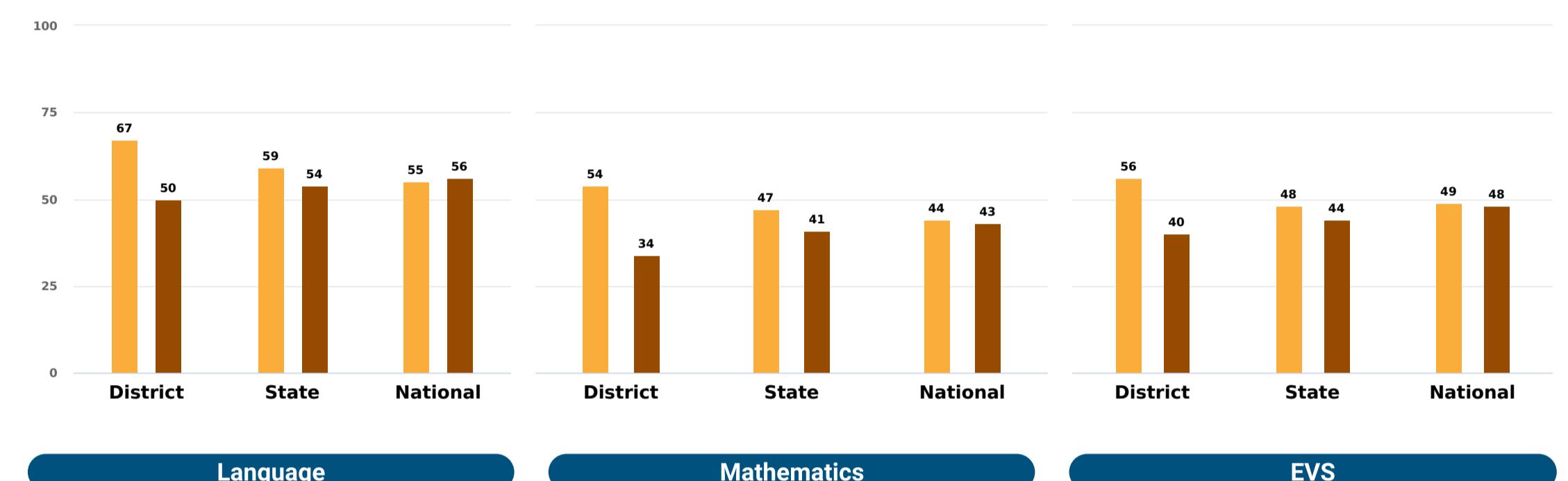


## Participation by Gender

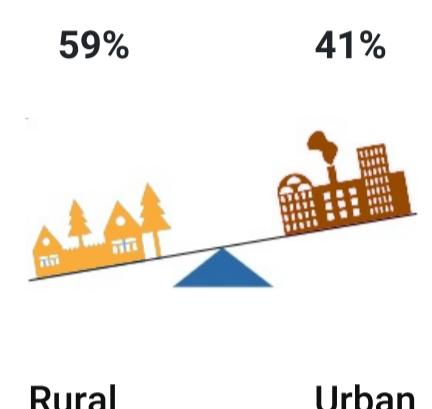


## Performance by Location (in percent correct)

Rural (Orange) Urban (Brown)

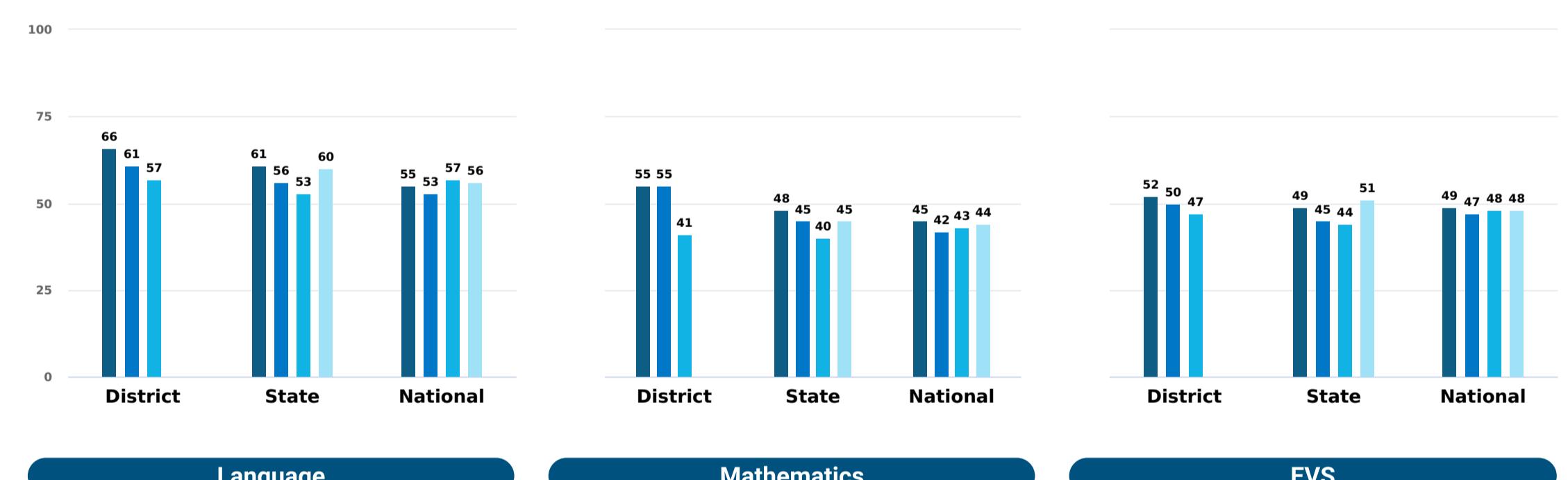


## Participation by Location

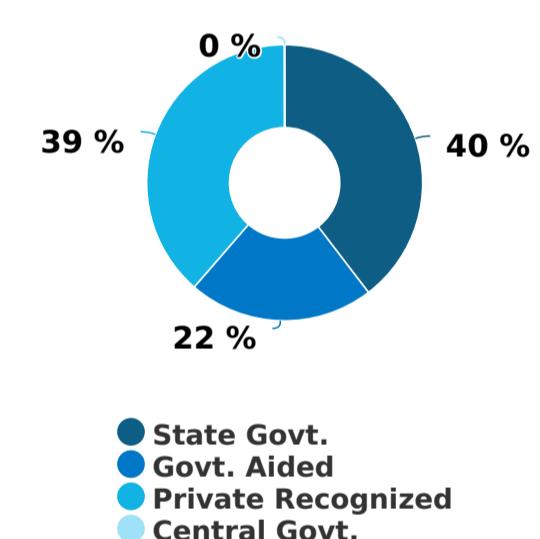


## Performance by Management (in percent correct)

State Govt. (Dark Blue) Govt. Aided (Medium Blue) Private Recognized (Light Blue) Central Govt. (Very Light Blue)

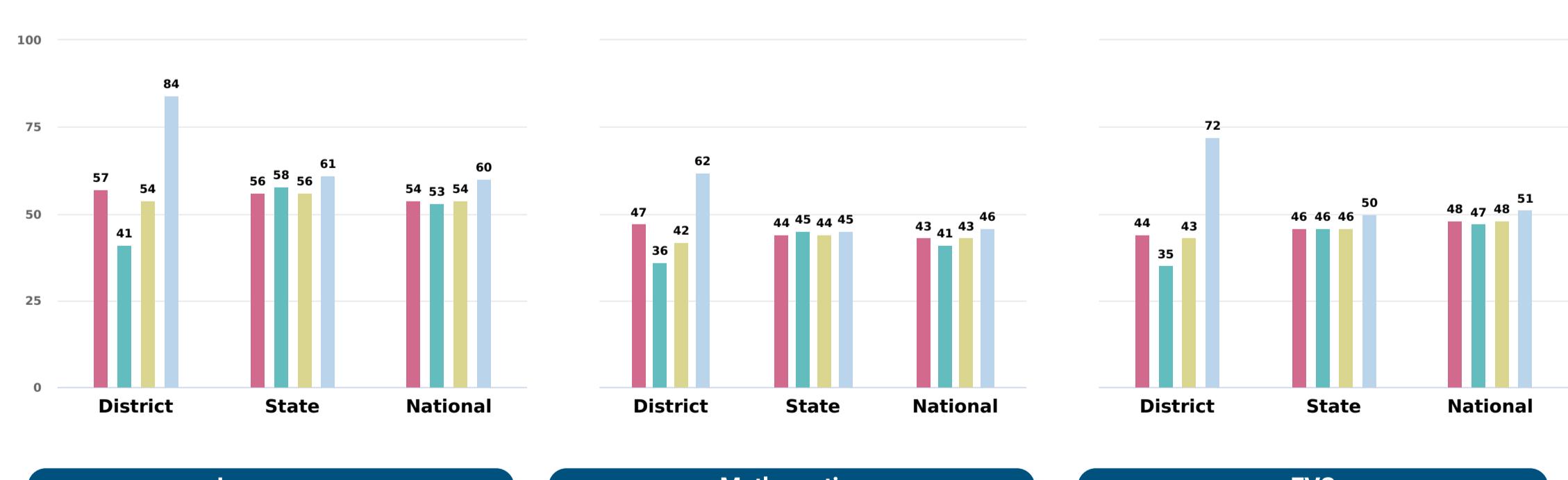


## Participation by Management



## Performance by Social Group (in percent correct)

SC (Pink) ST (Teal) OBC (Yellow-Green) General (Light Blue)



## Participation by Social Group



## Performance of the District in Achieving Learning Outcomes (LOs)

LO Code	Learning Outcomes for Class 5	District Average Performance	State Average Performance	National Average Performance
Language				
L508	Reads text with comprehension, locates details and sequence of events	59	57	55
Mathematics				
M401	Applies operations of numbers in daily life situations	44	47	45
M412	Explores the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit	33	35	36
M418	Calculates time intervals/duration of familiar daily life events by using forward or backward counting/addition and subtraction	49	47	47
M421	Represent the collected information in tables and bar graphs and draws inferences from these	45	41	42
M501	Reads and writes numbers bigger than 1000 being used in her/his surroundings	61	56	55
M504	Estimates sum, difference, product and quotient of numbers and verifies the same using different strategies like using standard algorithms or breaking a number and then using operation	45	46	46
M505	Finds the number corresponding to part of a collection	57	55	55
M506	Identifies and forms equivalent fractions of a given fraction	38	37	38
M508	Converts fractions into decimals and vice versa	43	45	43
M509	Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing	54	44	48
M512	Relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa	40	37	38
M513	Estimates the volume of a solid body in known units.	41	41	41
M514	Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals	42	46	43
M515	Identifies the pattern in triangular numbers and square number	50	46	46
M516	Collects data related to various daily life situations. represents it in tabular form and as bar graphs and interprets it	52	47	46
EVS				
EVS403	Identifies relationship with and among family members in extended family	51	52	50
EVS410	Records observations/experiences/information for objects, activities, phenomena, places visited in different ways and predicts patterns and activities/ phenomena	46	46	50
EVS501	Explains the super senses and unusual features (sight, smell, hear, sleep, sound, etc.) of animals and their responses to light, sound, food etc.	48	44	45
EVS503	Describes the interdependence among animals, plants and humans	55	52	50
EVS504	Explains the role and functions of different institutions in daily life (Bank, Panchayat, cooperatives. police station, etc.)	45	45	48
EVS505	Establishes linkages among terrain, climate, resources (food, water, shelter, livelihood) and cultural life. (e.g. life in distant/difficult areas like hot/cold deserts)	51	47	48
EVS506	Groups objects, materials, activities for features/properties such as shape, taste, color , texture, sound, traits etc.	44	40	48
EVS507	Traces the changes in practices, customs, techniques of past and present through coins, paintings, monuments, museum etc. and interacting with elders	41	43	47

Average performance less than 50 percent

## Performance of the District in Achieving Learning Outcomes (LOs)

LO Code	Learning Outcomes for Class 5	District Average Performance	State Average Performance	National Average Performance
EVS508	Guesses (properties, conditions of phenomena), estimates spatial quantities (distance, area, volume, weight etc. ) and time in simple standard units and verifies using simple tools/set ups	47 	44 	48 
EVS509	Records observations/experiences/information in an organized manner (e.g. in tables/ sketches/ bar graphs/ pie charts) and predicts patterns in activities/ phenomena (e.g. floating, sinking, mixing, evaporation , germination, spoilage) to establish relation between cause and effect.	56	54	55
EVS510	Identifies signs, directions, location of different objects/landmarks of a locality / place visited in maps and predicts directions w.r.t. positions at different places for a location	49 	47 	45 
EVS512	Voices opinions on issues observed/experienced and relates practices/happenings to larger issues of society	56	52	54
EVS513	Suggests ways for hygiene, health, managing waste. disaster/emergency situations and protecting/saving resources	34 	34 	35 

 Average performance less than 50 percent

## What students have to say

**98%**

Students like to go to school

**74%**

Students use same language at home as medium of instruction in the class

**95%**

Students could understand, what teachers teach in the class

**71%**

Students go out and play during games period

**89%**

Students have access to digital devices in the school

**66%**

Students have internet connectivity at home

**85%**

Student get parental support for their educational achievement

## What teachers have to say

**44%**

Teachers have adequate instructional material and supplies

**64%**

Teachers have adequate work space

**44%**

Teachers say that they are overloaded with the work

**20%**

Teachers have responded that the school building needs significant repair

**5%**

Teachers have responded that there is lack of drinking water facilities in school

**9%**

Teachers have responded that there are inadequate toilet facilities in school

**57%**

Teachers participated in professional development program

**95%**

Teachers have responded that the parents take interest in school activities

**99%**

Teachers know the protocol for COVID symptoms reporting

**98%**

Measures to be taken for wellbeing of children and school staff

**98%**

Teachers are aware of school reopening guidelines

## What head teachers have to say

**88%**

of head teachers responded that schools have adequate qualified teaching staff

**55%**

of head teachers responded that schools have adequate supporting staff

**51%**

of head teachers responded that schools have adequate audio visual resources

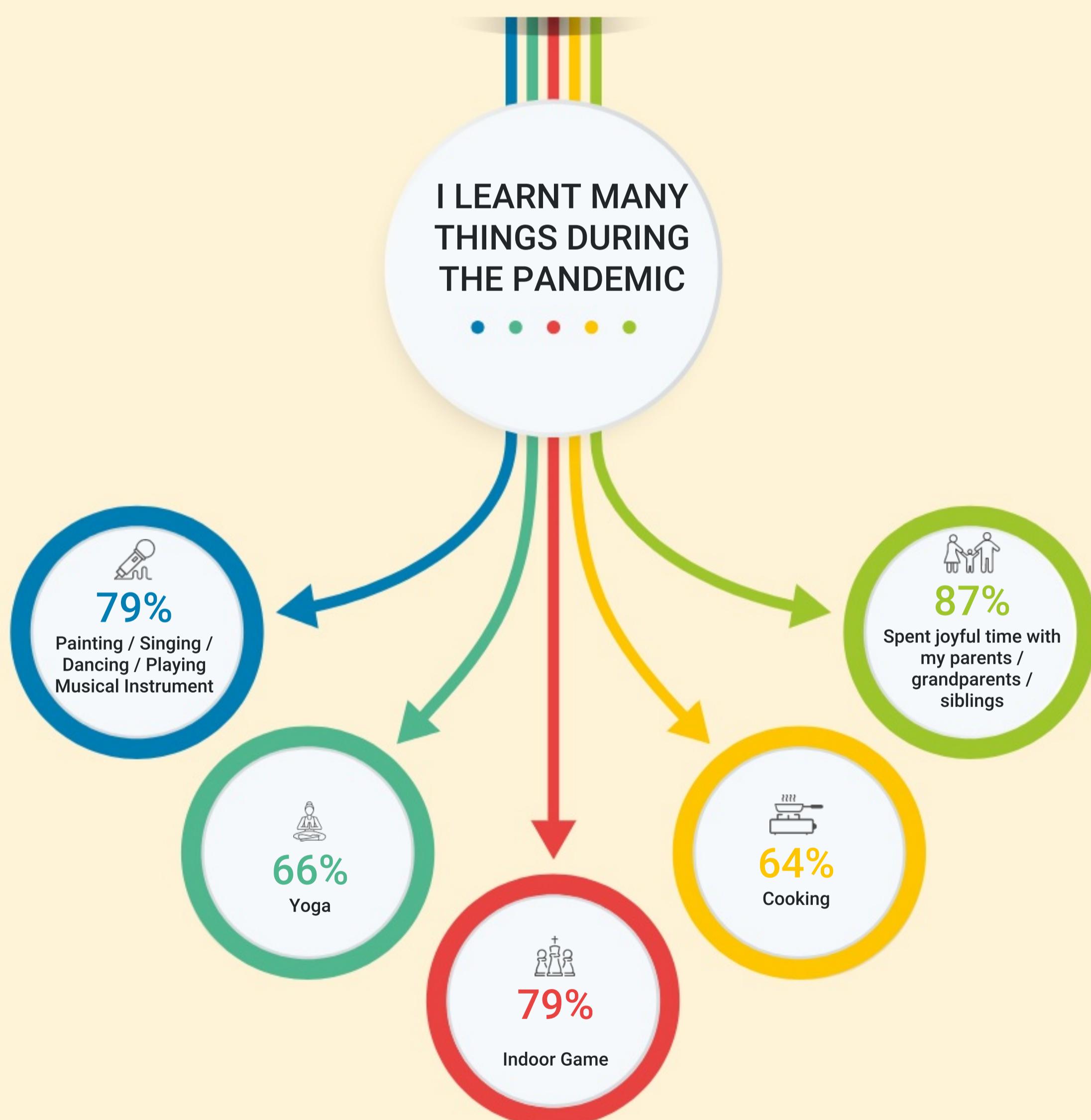
**73%**

of head teachers responded that schools have adequate library resources

**96%**

of head teachers responded that schools participate in sports activities

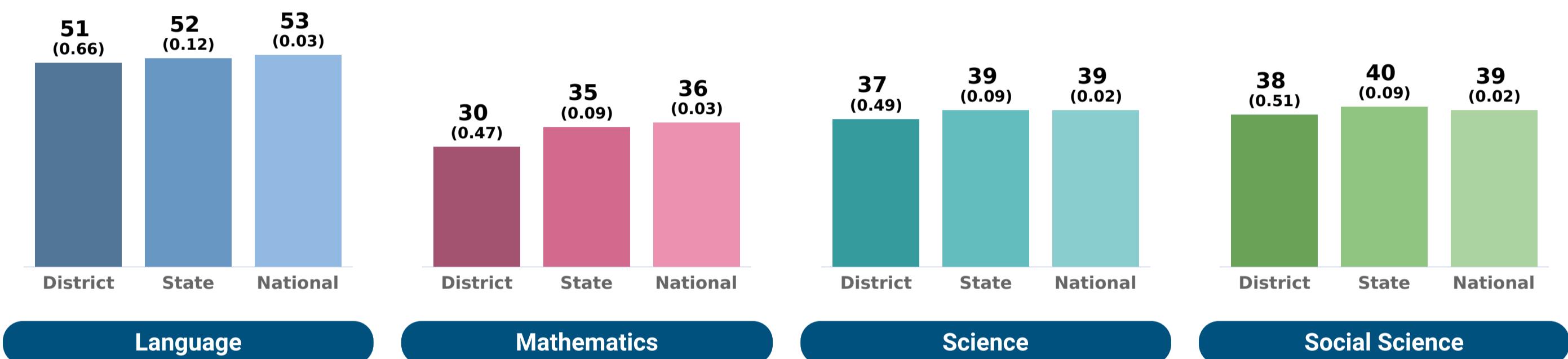
# NAS 2021 RESULTS FOR Class 8



## Total Participation



## District Performance of Students vis-a-vis State and National in percent correct (standard error)



## Percentage of Students by Performance Level

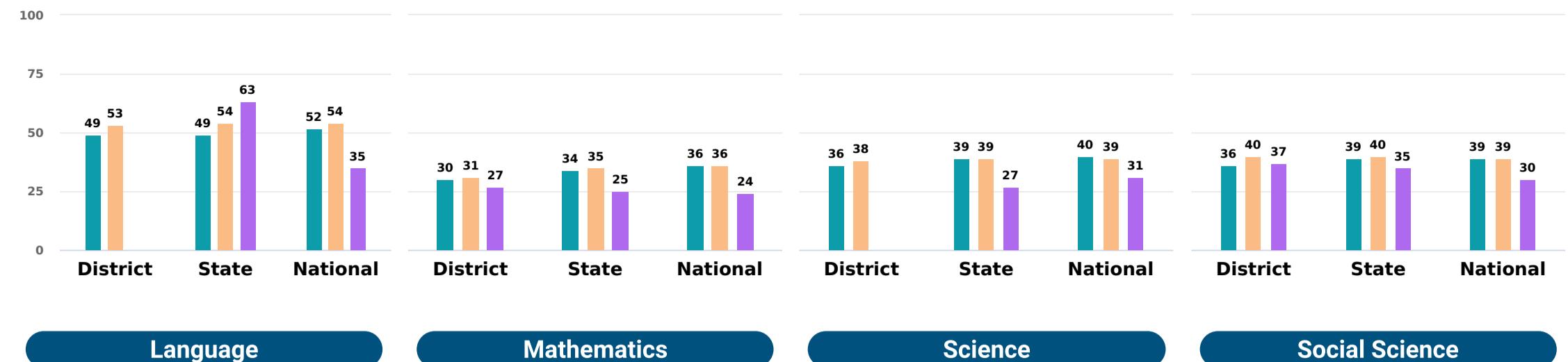
	Below basic	Basic	Proficient	Advanced
Language	19	55	18	8
Mathematics	36	52	10	2
Science	41	40	16	3
Social Science	40	47	8	5

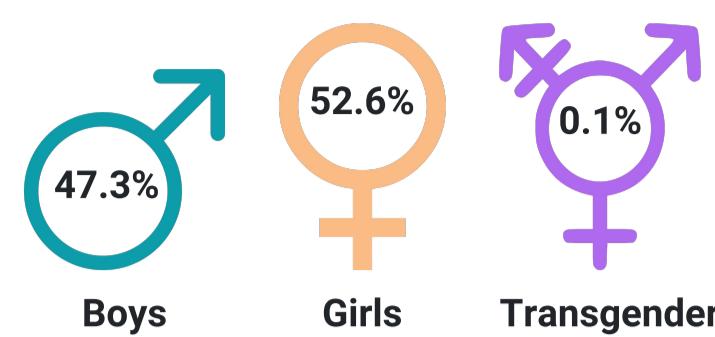
<b>Below Basic</b>	Learners at this level are at the early stages of development regarding the curriculum standards. They have not achieved the required knowledge and skill to be considered minimally successful regarding curriculum demands. They need guidance at every stage of learning. They need a lot of encouragement and support.
<b>Basic</b>	Learners at this level demonstrate a minimum level of knowledge and skills related to the curricular demands. They can follow simple instructions and apply simple rules to achieve the expected performance. They have ideas but lack coherence. They can solve problems using simple logic, and also express themselves using simple language. They need enough guidance at various stages of learning.
<b>Proficient</b>	Learners at this level have acquired most of the learning outcomes and skills required by the curriculum. They can work independently with minimum supervision. They have a systematic methodology to solve problems. They can communicate their ideas clearly. They can also connect different ideas and create meaning with minimum guidance and supervision. They can analyze situations and interpret information for application in new situations. Efforts are required to bring all learners to attain the proficient level and above.
<b>Advanced</b>	Learners at this level display exceptional mastery of the learning content as prescribed by the curriculum and beyond. They are independent with high analytical, reflective and critical thinking. They can connect and integrate concepts and ideas to create new knowledge/meaning and solve complex problems. They communicate information with the highest level of creativity and coherence as well as make sound judgements.

## Performance by Gender (in percent correct)

Boys (Teal) Girls (Orange) Transgender (Purple)

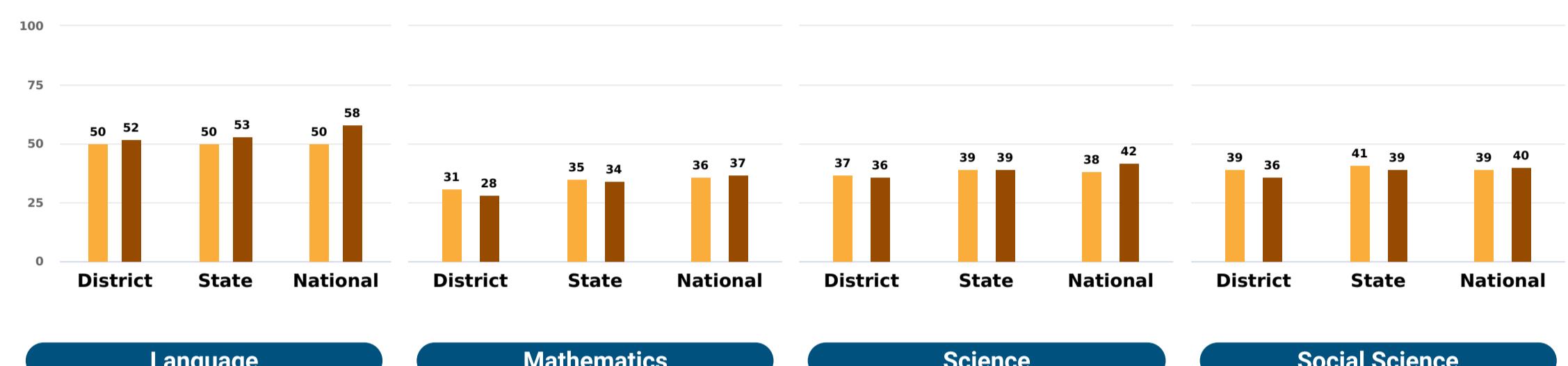


## Participation by Gender

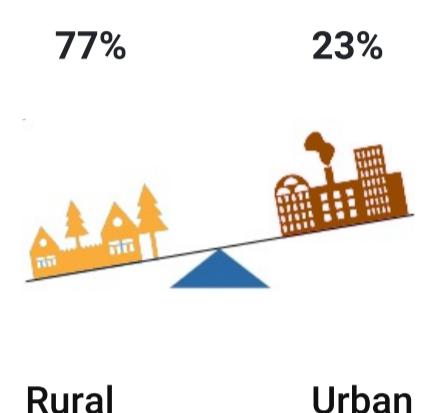


## Performance by Location (in percent correct)

Rural (Orange) Urban (Brown)

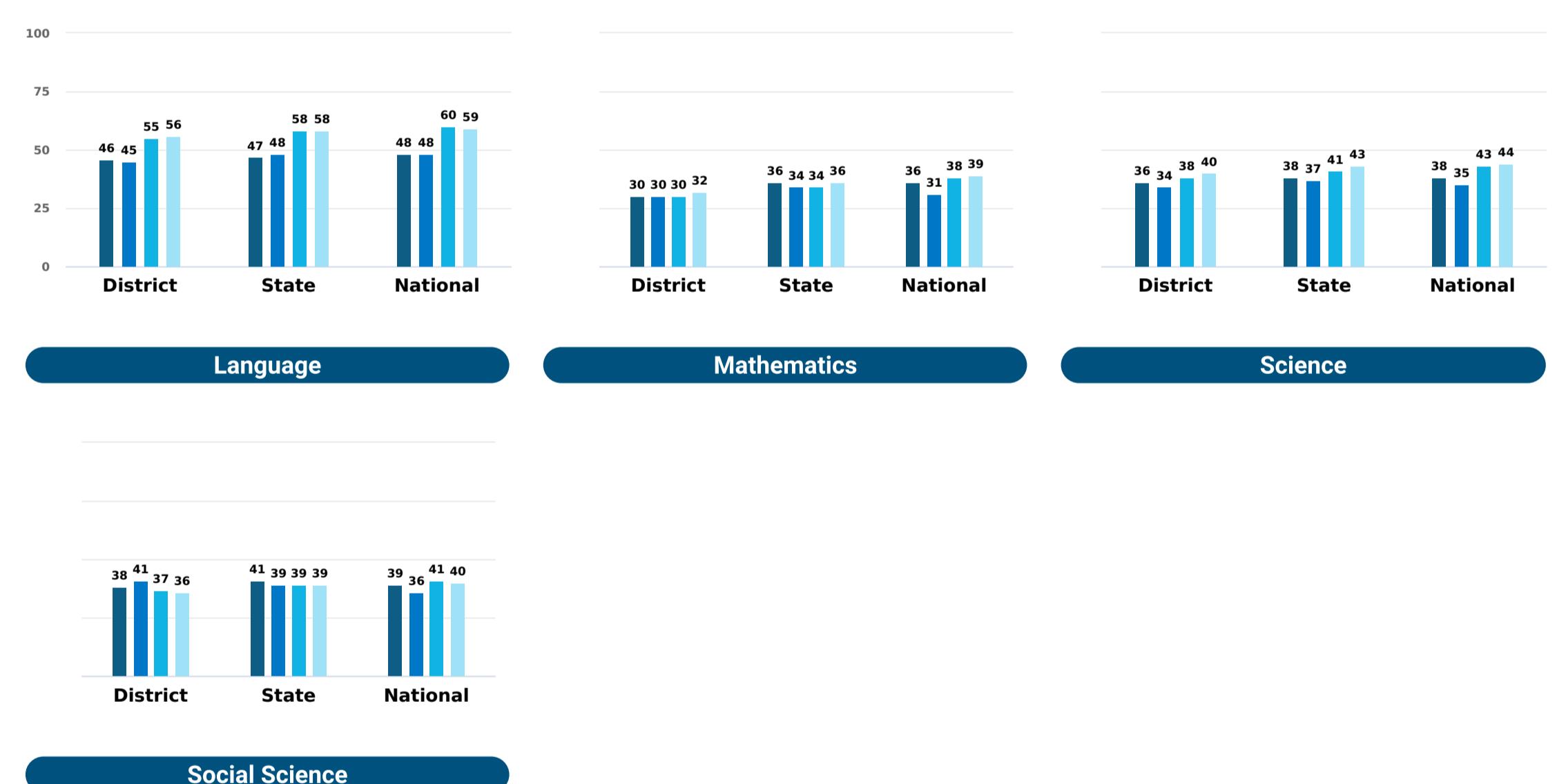


## Participation by Location

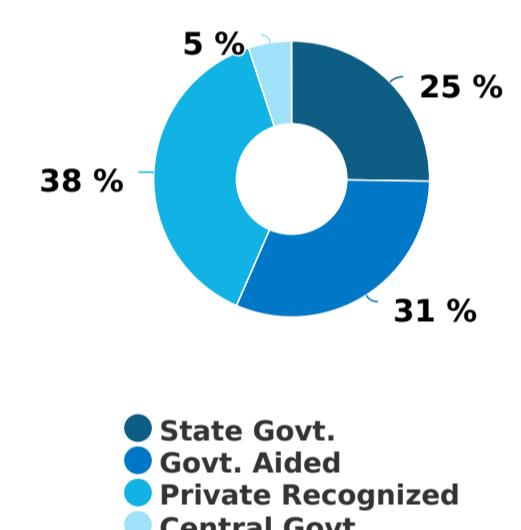


## Performance by Management (in percent correct)

State Govt. (Dark Blue) Govt. Aided (Medium Blue) Private Recognized (Light Blue) Central Govt. (Very Light Blue)

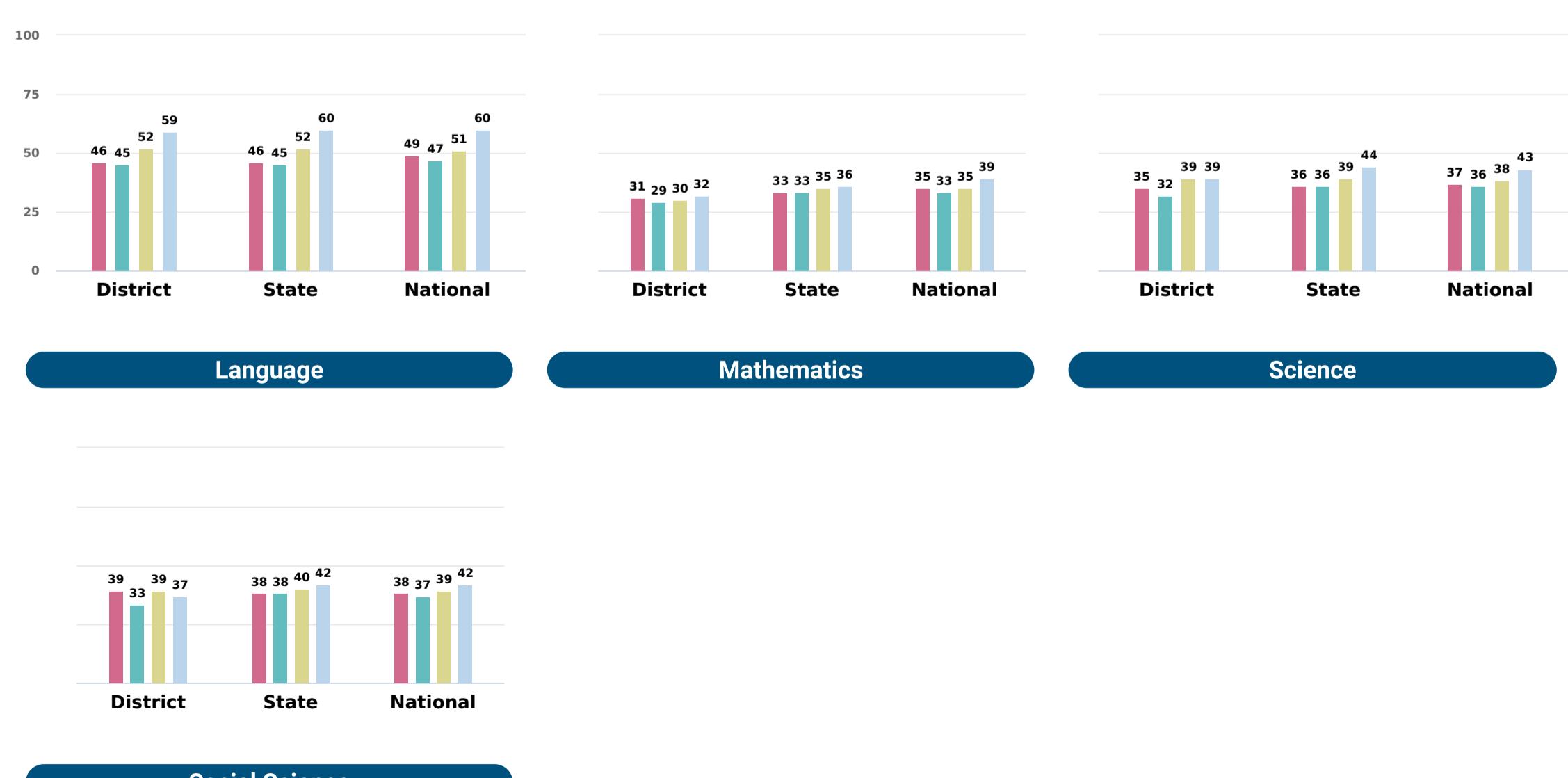


## Participation by Management



## Performance by Social Group (in percent correct)

SC (Pink) ST (Teal) OBC (Yellow-Green) General (Light Blue)



## Participation by Social Group



## Performance of the District in Achieving Learning Outcomes (LOs)

LO Code	Learning Outcomes for Class 8	District Average Performance	State Average Performance	National Average Performance
Language				
L813	Read textual/non-textual materials with comprehension and identifies the details, characters, main idea and sequence of ideas and events while reading	51	52	53
Mathematics				
M601	Solves problems involving large numbers by applying appropriate operations	36 <span style="color: yellow;">⚠</span>	46 <span style="color: yellow;">⚠</span>	49 <span style="color: yellow;">⚠</span>
M606	Solves problems on daily life situations involving addition and subtraction of fractions / decimals	41 <span style="color: yellow;">⚠</span>	46 <span style="color: yellow;">⚠</span>	48 <span style="color: yellow;">⚠</span>
M620	Finds out the perimeter and area of rectangular objects in the surroundings like floor of the class room, surfaces of a chalk box etc.	22 <span style="color: yellow;">⚠</span>	24 <span style="color: yellow;">⚠</span>	29 <span style="color: yellow;">⚠</span>
M621	Arranges given/collected information in the form of table, pictograph and bar graph and interprets them	35 <span style="color: yellow;">⚠</span>	39 <span style="color: yellow;">⚠</span>	41 <span style="color: yellow;">⚠</span>
M702	Interprets the division and multiplication of fractions	25 <span style="color: yellow;">⚠</span>	30 <span style="color: yellow;">⚠</span>	34 <span style="color: yellow;">⚠</span>
M705	Solves problems related to daily life situations involving rational numbers	18 <span style="color: yellow;">⚠</span>	18 <span style="color: yellow;">⚠</span>	23 <span style="color: yellow;">⚠</span>
M706	Uses exponential form of numbers to simplify problems involving multiplication and division of large numbers	23 <span style="color: yellow;">⚠</span>	28 <span style="color: yellow;">⚠</span>	28 <span style="color: yellow;">⚠</span>
M707	Adds/subtracts algebraic expressions	27 <span style="color: yellow;">⚠</span>	35 <span style="color: yellow;">⚠</span>	38 <span style="color: yellow;">⚠</span>
M710	Solves problems related to conversion of percentage to fraction and decimal and vice versa	19 <span style="color: yellow;">⚠</span>	27 <span style="color: yellow;">⚠</span>	30 <span style="color: yellow;">⚠</span>
M717	Finds out approximate area of closed shapes by using unit square grid/graph sheet	32 <span style="color: yellow;">⚠</span>	33 <span style="color: yellow;">⚠</span>	34 <span style="color: yellow;">⚠</span>
M719	Finds various representative values for simple data from her/his daily life contexts like mean, median and mode	39 <span style="color: yellow;">⚠</span>	43 <span style="color: yellow;">⚠</span>	43 <span style="color: yellow;">⚠</span>
M721	Interprets data using bar graph such as consumption of electricity is more in winters than summer	37 <span style="color: yellow;">⚠</span>	35 <span style="color: yellow;">⚠</span>	37 <span style="color: yellow;">⚠</span>
M801	Generalizes properties of addition, subtraction, multiplication and division of rational numbers through patterns	32 <span style="color: yellow;">⚠</span>	34 <span style="color: yellow;">⚠</span>	34 <span style="color: yellow;">⚠</span>
M802	Finds rational numbers between two given rational numbers	35 <span style="color: yellow;">⚠</span>	40 <span style="color: yellow;">⚠</span>	40 <span style="color: yellow;">⚠</span>
M803	Proves divisibility rules of 2, 3, 4, 5, 6, 9 and 11	36 <span style="color: yellow;">⚠</span>	42 <span style="color: yellow;">⚠</span>	43 <span style="color: yellow;">⚠</span>
M804	Finds squares, cubes, square roots and cube roots of numbers using different methods	24 <span style="color: yellow;">⚠</span>	32 <span style="color: yellow;">⚠</span>	34 <span style="color: yellow;">⚠</span>
M808	Uses various algebraic identities in solving problem of daily life.	37 <span style="color: yellow;">⚠</span>	42 <span style="color: yellow;">⚠</span>	42 <span style="color: yellow;">⚠</span>
M812	Verifies properties of parallelogram and establishes the relationship between them through reasoning	36 <span style="color: yellow;">⚠</span>	39 <span style="color: yellow;">⚠</span>	39 <span style="color: yellow;">⚠</span>
M818	Find surface area and volume of cuboidal and cylindrical object	27 <span style="color: yellow;">⚠</span>	29 <span style="color: yellow;">⚠</span>	30 <span style="color: yellow;">⚠</span>
M819	Draws and interprets bar charts and pie charts	21 <span style="color: yellow;">⚠</span>	28 <span style="color: yellow;">⚠</span>	30 <span style="color: yellow;">⚠</span>
Science				
SCI703	Classifies materials and organisms based on properties/characteristics	40 <span style="color: yellow;">⚠</span>	41 <span style="color: yellow;">⚠</span>	39 <span style="color: yellow;">⚠</span>
SCI704	Conducts simple investigation to seek answers to queries	33 <span style="color: yellow;">⚠</span>	33 <span style="color: yellow;">⚠</span>	37 <span style="color: yellow;">⚠</span>
SCI705	Relates processes and phenomenon with causes	39 <span style="color: yellow;">⚠</span>	41 <span style="color: yellow;">⚠</span>	45 <span style="color: yellow;">⚠</span>
SCI708	Measures and calculates e.g.. temperature; pulse rate; speed of moving objects; time period of a simple pendulum, etc.	36 <span style="color: yellow;">⚠</span>	40 <span style="color: yellow;">⚠</span>	43 <span style="color: yellow;">⚠</span>
SCI710	Plots and interprets graphs	34 <span style="color: yellow;">⚠</span>	35 <span style="color: yellow;">⚠</span>	35 <span style="color: yellow;">⚠</span>
SCI711	Constructs models using materials from surroundings and explains their working	24 <span style="color: yellow;">⚠</span>	26 <span style="color: yellow;">⚠</span>	26 <span style="color: yellow;">⚠</span>
SCI801	Differentiates materials, organism and processes	47 <span style="color: yellow;">⚠</span>	48 <span style="color: yellow;">⚠</span>	46 <span style="color: yellow;">⚠</span>
SCI804	Relates processes and phenomenon with causes	31 <span style="color: yellow;">⚠</span>	35 <span style="color: yellow;">⚠</span>	34 <span style="color: yellow;">⚠</span>

## Performance of the District in Achieving Learning Outcomes (LOs)

LO Code	Learning Outcomes for Class 8	District Average Performance	State Average Performance	National Average Performance
SCI805	Explains processes and phenomenon	34	37	36
SCI807	Measures angles of incidence and reflection, etc.	34	33	34
SCI811	Applies learning of scientific concepts in day-to-day life	39	42	45
SCI813	Makes efforts to protect environment	44	46	44
Social Science				
SST605	Identifies latitudes and longitudes, e.g., poles, equator, tropics, States /Ws of India and other neighboring countries on globe and the world map	30	37	40
SST610	Locates important historical sites, places on an outline map of India.	28	27	26
SST625	Describes the functioning of rural and urban local government bodies in sectors like health and education	35	35	35
SST703	Explains preventive actions to be undertaken in the event of disasters	41	42	46
SST704	Describes formation of landforms due to various factors	34	40	44
SST722	Explains the significance of equality in democracy	39	39	39
SST726	Describes the process of election to the legislative assembly	45	45	42
SST731	Explains the functioning of media with appropriate examples from newspapers	50	54	56
SST733	Differentiates between different kinds of markets	39	40	38
SST734	Traces how goods travel through various market places	35	37	41
SST802	Describes major crops, types of farming and agricultural practices in her/his own area/state	39	41	39
SST805	Locates distribution of important minerals e.g. coal and mineral oil on the world map	26	29	28
SST807	Justifies judicious use of natural resources	30	36	37
SST809	Draws interrelationship between types of farming and development in different regions of the world	37	36	36
SST810	Distinguishes the modern period from the medieval and the ancient periods through the use of sources	23	26	28
SST815	Explains the origin, nature and spread of the revolt of 1857 and the lessons learned from it.	33	35	33
SST816	Analyses the decline of pre-existing urban centers and handicraft industries and the development of new urban centers and industries in India during the colonial period	28	30	27
SST818	Analyses the issues related to caste, women, widow remarriage, child marriage, social reforms and the laws and policies of colonial administration towards these issues	44	46	44
SST823	Applies the knowledge of the Fundamental Rights to find out about their violation. protection and promotion in a given situation	36	39	29
SST827	Describes the process of making a law. (e.g. Domestic Violence Act, RTI Act, RTE Act)	33	37	36
SST831	Identifies the role of Government in providing public facilities such as water, sanitation, road, electricity etc, and recognizes their availability	34	33	37
SST833	Draws bar diagram to show population of different countries/India/states	62	64	61

Average performance less than 50 percent

## What students have to say

**79%**

Students like to go to school

**62%**

Students use same language at home as medium of instruction in the class

**78%**

Students could understand, what teachers teach in the class

**51%**

Students go out and play during games period

**66%**

Students have access to digital devices in the school

**51%**

Students have internet connectivity at home

**65%**

Student get parental support for their educational achievement

## What teachers have to say

**40%**

Teachers have adequate instructional material and supplies

**78%**

Teachers have adequate work space

**46%**

Teachers say that they are overloaded with the work

**9%**

Teachers have responded that the school building needs significant repair

**6%**

Teachers have responded that there is lack of drinking water facilities in school

**5%**

Teachers have responded that there are inadequate toilet facilities in school

**56%**

Teachers participated in professional development program

**88%**

Teachers have responded that the parents take interest in school activities

**98%**

Teachers know the protocol for COVID symptoms reporting

**100%**

Measures to be taken for wellbeing of children and school staff

**99%**

Teachers are aware of school reopening guidelines

## What head teachers have to say

**88%**

of head teachers responded that schools have adequate qualified teaching staff

**55%**

of head teachers responded that schools have adequate supporting staff

**51%**

of head teachers responded that schools have adequate audio visual resources

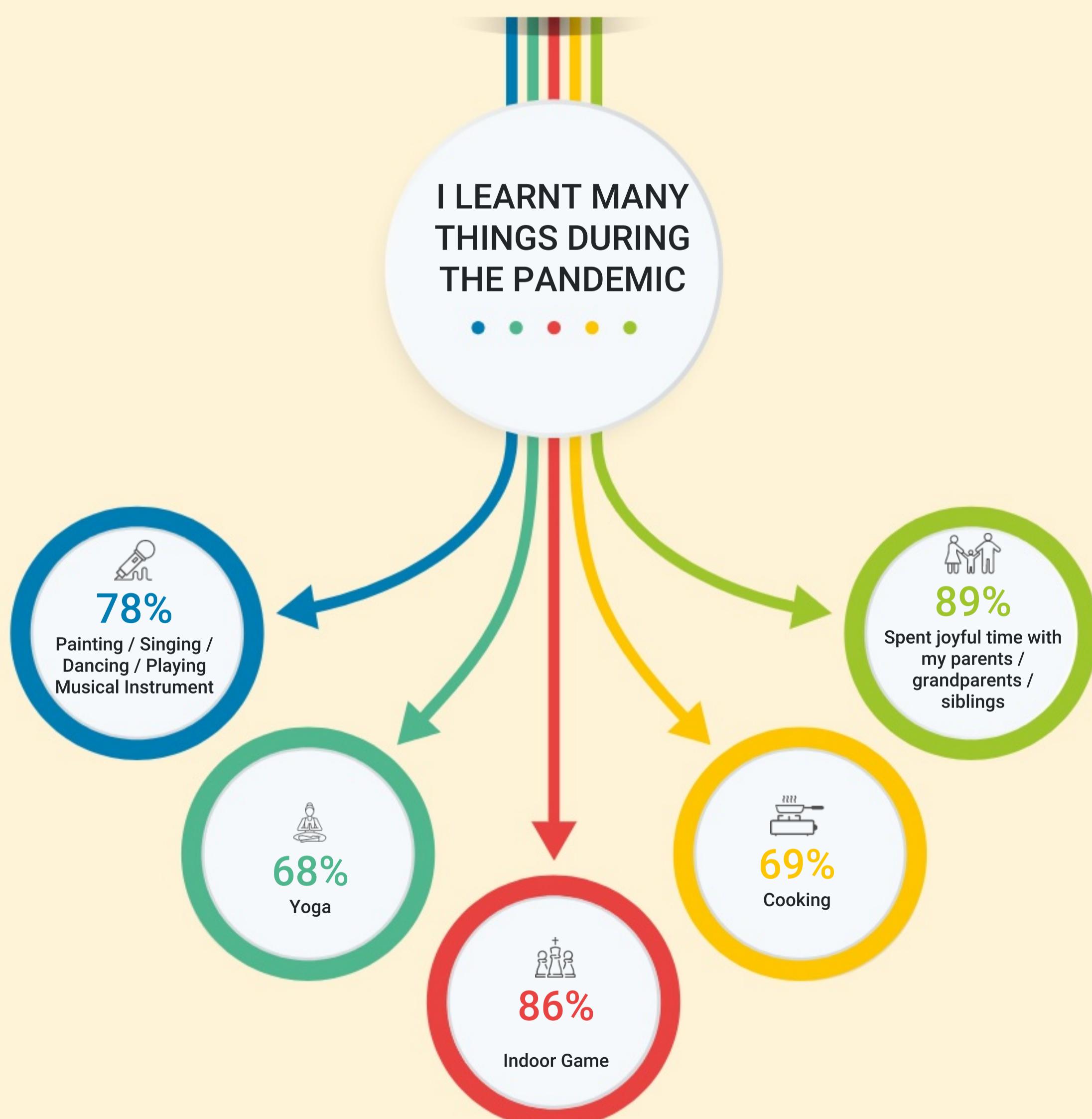
**73%**

of head teachers responded that schools have adequate library resources

**96%**

of head teachers responded that schools participate in sports activities

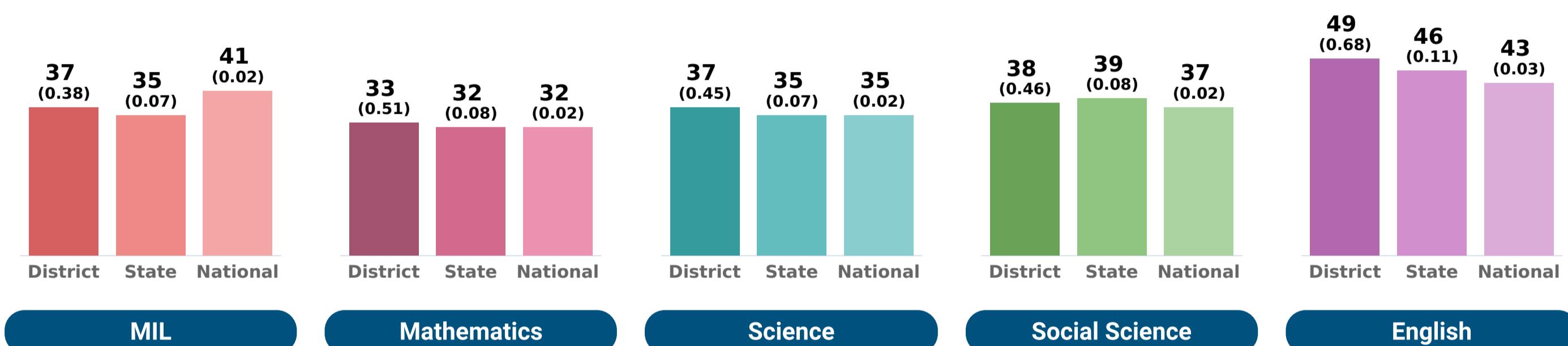
# NAS 2021 RESULTS FOR Class 10



## Total Participation



## District Performance of Students vis-a-vis State and National in percent correct (standard error)



## Percentage of Students by Performance Level

	Below basic	Basic	Proficient	Advanced
MIL	64	35	1	0
Mathematics	30	44	19	7
Science	70	21	9	1
Social Science	55	28	16	1
English	13	13	48	25

### Below Basic

Learners at this level are at the early stages of development regarding the curriculum standards. They have not achieved the required knowledge and skill to be considered minimally successful regarding curriculum demands. They need guidance at every stage of learning. They need a lot of encouragement and support.

### Basic

Learners at this level demonstrate a minimum level of knowledge and skills related to the curricular demands. They can follow simple instructions and apply simple rules to achieve the expected performance. They have ideas but lack coherence. They can solve problems using simple logic, and also express themselves using simple language. They need enough guidance at various stages of learning.

### Proficient

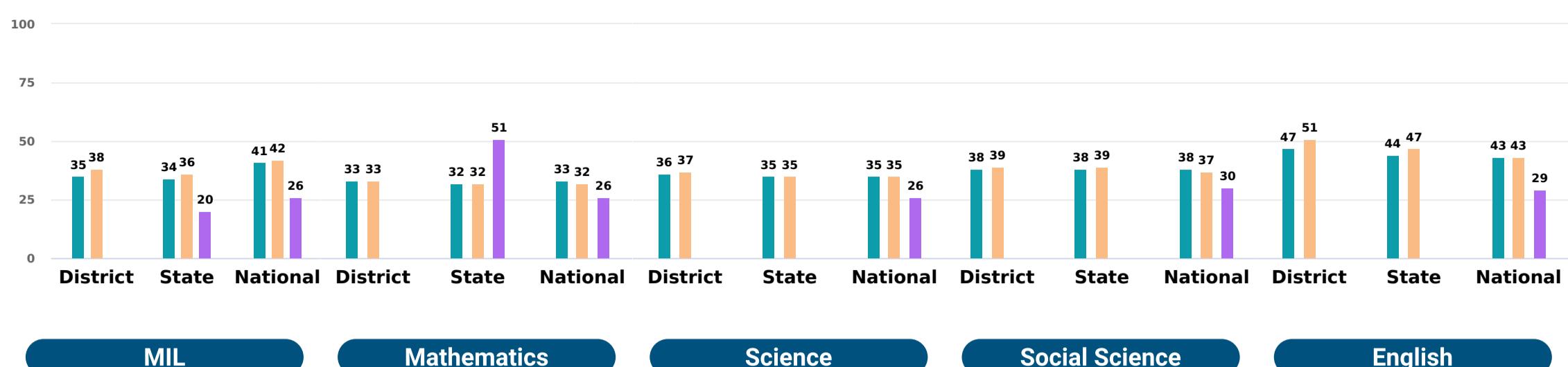
Learners at this level have acquired most of the learning outcomes and skills required by the curriculum. They can work independently with minimum supervision. They have a systematic methodology to solve problems. They can communicate their ideas clearly. They can also connect different ideas and create meaning with minimum guidance and supervision. They can analyze situations and interpret information for application in new situations. Efforts are required to bring all learners to attain the proficient level and above.

### Advanced

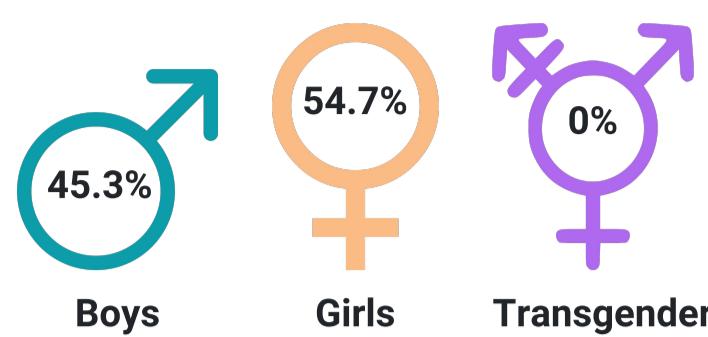
Learners at this level display exceptional mastery of the learning content as prescribed by the curriculum and beyond. They are independent with high analytical, reflective and critical thinking. They can connect and integrate concepts and ideas to create new knowledge/meaning and solve complex problems. They communicate information with the highest level of creativity and coherence as well as make sound judgements.

\* MIL - Modern Indian Language

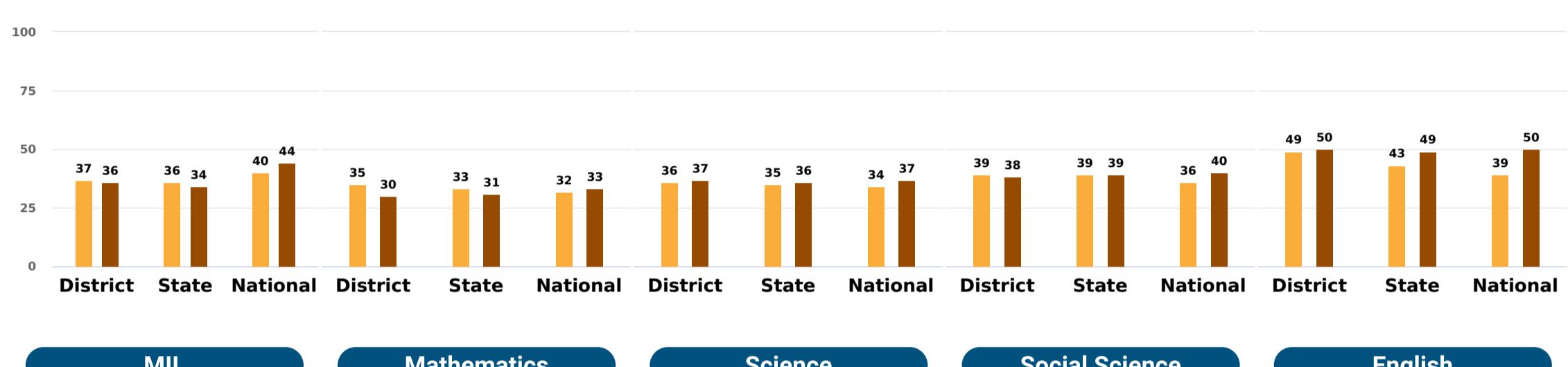
## Performance by Gender (in percent correct)



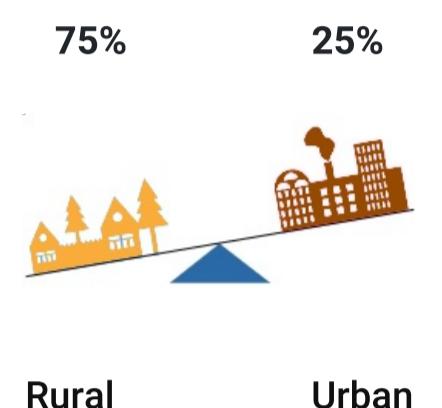
## Participation by Gender



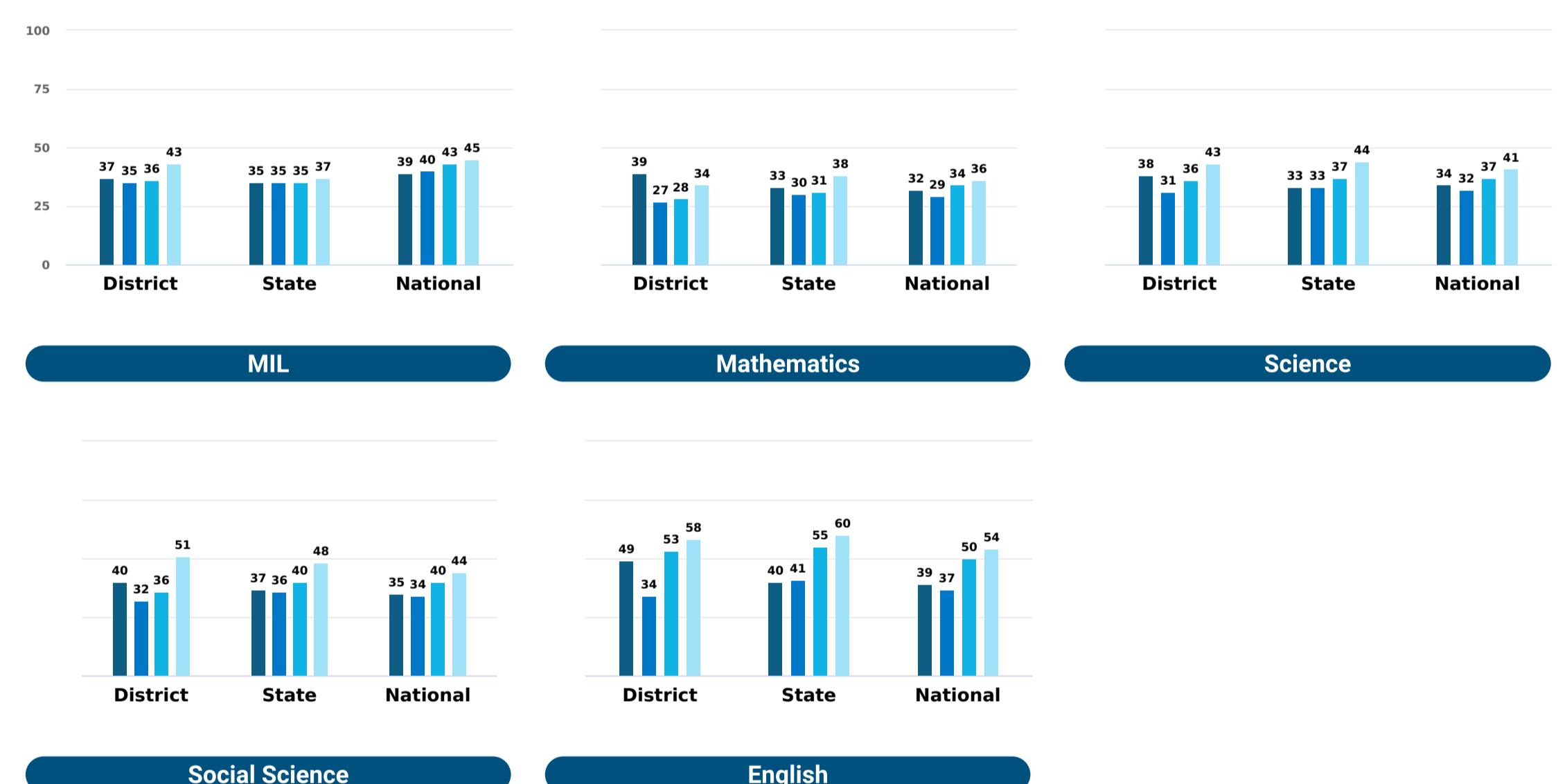
## Performance by Location (in percent correct)



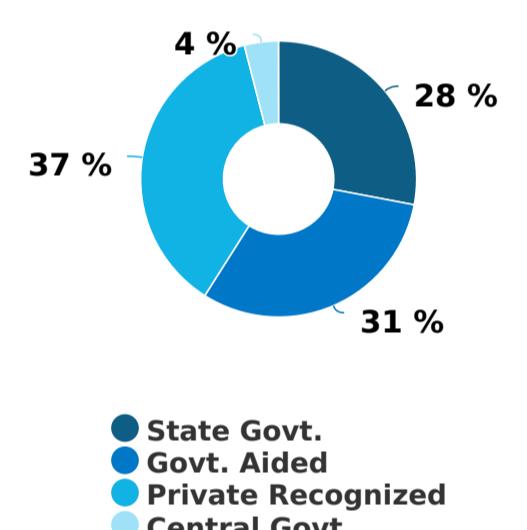
## Participation by Location



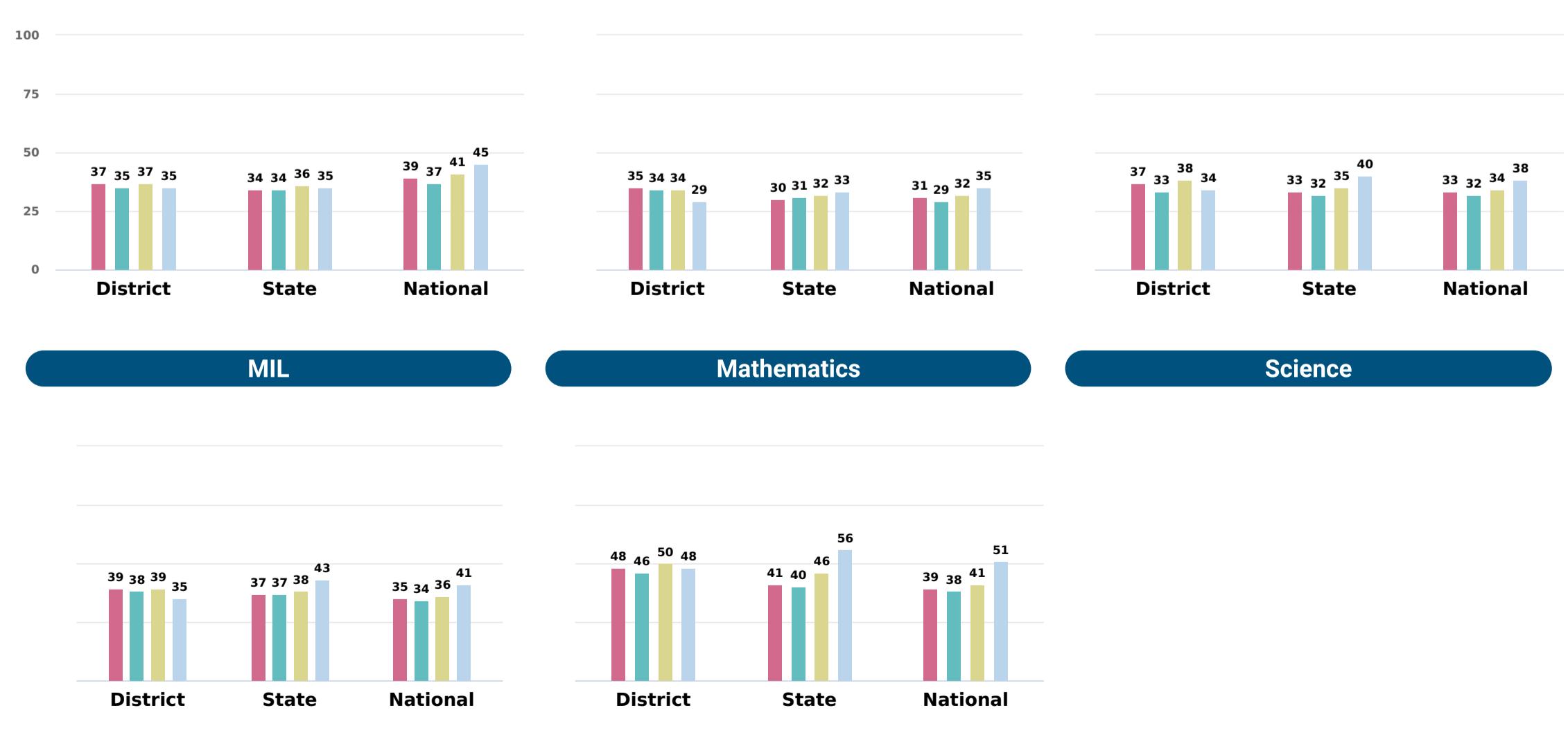
## Performance by Management (in percent correct)



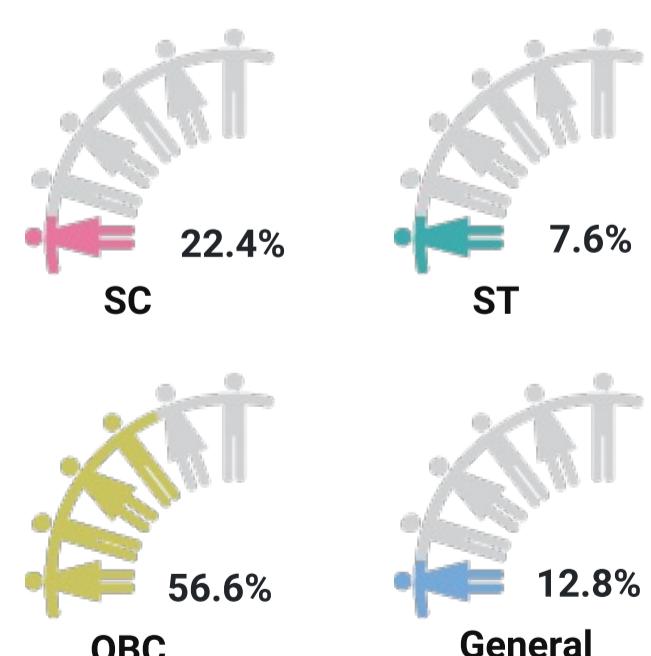
## Participation by Management



## Performance by Social Group (in percent correct)



## Participation by Social Group



## Performance of the District in Achieving Learning Outcomes (LOs)

LO Code	Learning Outcomes for Class 10	District Average Performance	State Average Performance	National Average Performance
MIL				
MIL1011	पाठ्यवस्तु में शामिल रचनाओं के अतिरिक्त अन्य कविता, कहानी, एकांकी को पढ़ते-लिखते और मंचन करते हैं।	37	35	41
Mathematics				
M1001	Generalises properties of numbers and relations among them studied earlier to evolve results, such as, Euclid's division algorithm, Fundamental Theorem of Arithmetic and applies them to solve problems related to real life contexts.	41	38	40
M1002	Develops a relationship between algebraic and graphical methods of finding the zeroes of a polynomial.	31	30	32
M1003	Finds solutions of pairs of linear equations in two variables using graphical and different algebraic methods.	34	30	30
M1004	Demonstrates strategies of finding roots and determining the nature of roots of a quadratic equation.	35	35	36
M1005	Develops strategies to apply the concept of A.P. to daily life situations. Works out ways to differentiate between congruent and similar figures.	40	40	37
M1006	Establishes properties for similarity of two triangles logically using different geometric criteria established earlier such as, Basic Proportionality Theorem, etc.	36	34	32
M1007	Derives formulae to establish relations for geometrical shapes in the context of a coordinate plane, such as, finding the distance between two given points, to determine the coordinates of a point between any two given points, to find the area of a triangle etc.	29	28	28
M1008	Determines all trigonometric ratios with respect to a given acute angle (of a right triangle) and uses them in solving problems in daily life contexts like finding heights of different structures or distance from them.	33	31	33
M1009	Derives proofs of theorems related to the tangents of circles.	40	39	36
M1010	Examines the steps of geometrical constructions and reason out each step	18	18	21
M1011	Finds surface areas and volumes of objects in the surroundings by visualising them as a combination of different solids like cylinder and a cone, cylinder and a hemisphere, combination of different cubes, etc.	31	31	35
M1012	Calculates mean, median and mode for different sets of data related with real life contexts.	29	27	27
Science				
SCI1001	Differentiates materials, objects, organisms, phenomena, and processes, based on, properties and characteristics.	36	35	37
SCI1002	Classifies materials, objects, organisms, phenomena, and processes, based on properties and characteristics.	37	36	36
SCI1003	Relates processes and phenomena with causes and effects	44	42	40
SCI1004	Explains processes and phenomena.	37	36	36
SCI1005	Analyses and interprets data, graphs, and figures	37	33	30
SCI1006	Calculates using the data given	31	30	28
SCI1007	Uses scientific conventions to represent units of various quantities, symbols, formulae, and equations.	43	40	38
SCI1008	Applies learning to hypothetical situations	33	33	33
SCI1009	Applies scientific concepts in daily life and solving problems	38	36	36
SCI1010	Derives formulae, equations, and laws	25	24	28

Average performance less than 50 percent

## Performance of the District in Achieving Learning Outcomes (LOs)

LO Code	Learning Outcomes for Class 10	District Average Performance	State Average Performance	National Average Performance
Social Science				
SST1001	Recognises and retrieves facts, figures, and narrate processes.	37	37	34
SST1002	Classifies and compares events, facts, data, and figures.	39	39	37
SST1003	Explains cause and effect relationship between phenomena, events, and their occurrence.	35	35	36
SST1004	Analyses and evaluates information.	28	30	33
SST1005	Interprets: Maps, texts, symbols, cartoons, photographs, posters, newspaper clippings, climatic regions, changes in maps brought out by various treaties in Europe, sea, and land links of the trade from India to West Asia, South East Asia and other parts of the world, pie and bar diagrams related to gross domestic product, production in different sectors and industries, employment and population in India	43	43	42
SST1006	Draws interlinkages within Social Science.	26	28	27
SST1007	Identifies assumptions, biases, prejudices, or stereotypes about various aspects.	54	56	51
SST1008	Demonstrates inquisitiveness, enquiry.	47	44	45
SST1009	Constructs views, arguments, and ideas on the basis of collected or given information.	27	31	28
SST1010	Extrapolates and predicts events and phenomena.	39	38	35
SST1011	Illustrates decision making/problem solving skills.	46	46	45
SST1012	Shows sensitivity and appreciation skills.	41	41	37
English				
E1007	Reads, comprehends and responds to complex texts independently.	49	46	43

Average performance less than 50 percent

## What students have to say

**98%**

Students like to go to school

**79%**

Students use same language at home as medium of instruction in the class

**99%**

Students could understand, what teachers teach in the class

**65%**

Students go out and play during games period

**86%**

Students have access to digital devices in the school

**80%**

Students of class 10 have laboratory facility in school

**69%**

Students have internet connectivity at home

**85%**

Student get parental support for their educational achievement

## What teachers have to say

**43%**

Teachers have adequate instructional material and supplies

**77%**

Teachers have adequate work space

**47%**

Teachers say that they are overloaded with the work

**13%**

Teachers have responded that the school building needs significant repair

**9%**

Teachers have responded that there is lack of drinking water facilities in school

**11%**

Teachers have responded that there are inadequate toilet facilities in school

**47%**

Teachers participated in professional development program

**90%**

Teachers have responded that the parents take interest in school activities

**99%**

Teachers know the protocol for COVID symptoms reporting

**99%**

Measures to be taken for wellbeing of children and school staff

**99%**

Teachers are aware of school reopening guidelines

## What head teachers have to say

**88%**

of head teachers responded that schools have adequate qualified teaching staff

**55%**

of head teachers responded that schools have adequate supporting staff

**51%**

of head teachers responded that schools have adequate audio visual resources

**73%**

of head teachers responded that schools have adequate library resources

**96%**

of head teachers responded that schools participate in sports activities

# NAS 2021 Team

## National Steering Committee (NAS-2021)

<b>Chairman</b>	Dr. Vineet Joshi, IAS, Chairman, CBSE w.e.f. 15.02.2022 Shri Manoj Ahuja, IAS, Chairperson, CBSE upto 14.02.2022
<b>Member</b>	Shri Maneesh Garg, IAS, Joint Secretary, DoSEL, Ministry of Education
<b>Member</b>	Prof. (Dr.) Dinesh Prasad Saklani, Director, NCERT w.e.f. 14.02.2022 Prof. (Dr.) Sridhar Srivastava, Director, NCERT upto 13.02.2022
<b>Member</b>	Shri P K Banerjee, DDG (Stats) Ministry of Education upto 07.09.2021 Shri V. Hedge, DDG (Stats) Ministry of Education w.e.f. 10.12.2021
<b>Member</b>	Shri Prem Singh, IAS, Adviser (HRD/Admn/GA/Accts.) (North Eastern States), NITI Aayog
<b>Member</b>	Prof. (Dr.) Indrani Bhaduri, Head, ESD & Head NAS Cell, NCERT
<b>Member</b>	Shri J. P. Pandey, Director, DoSEL, Ministry of Education
<b>Member</b>	Shri Manoj Kumar Srivastava, Director (PE) & Head NAS Cell, CBSE
<b>Member</b>	Shri Saba Akhtar, Scientist-F, NIC
<b>Member</b>	Shri Ramachandra Rao Begur, Education Specialist, UNICEF

## Sub-Committee - Data Analysis, Reporting and Dissemination

<b>Chairman</b>	Prof. (Dr.) Dinesh Prasad Saklani, Director, NCERT w.e.f. 14.02.2022 Prof. (Dr.) Sridhar Srivastava, Director, NCERT upto 13.02.2022
<b>Member</b>	Prof. (Dr.) Sridhar Srivastava, Joint Director
<b>Member Secetary</b>	Prof. (Dr.) Indrani Bhaduri, Head, ESD & Head NAS Cell, NCERT
<b>Member</b>	Shri J.P. Pandey, Director, DoSEL, Min. of Education
<b>Member</b>	Shri P K Banerjee, DDG (Stats) Ministry of Education upto 09.12.2021 Shri V. Hedge, DDG (Stats) Ministry of Education w.e.f. 10.12.2021
<b>Member</b>	Shri Manoj Kumar Srivastava, Director (PE) & Head NAS Cell, CBSE
<b>Member</b>	Shri Saba Akhtar, Scientist-F, NIC
<b>Member</b>	Shri Ganesh Nigam, Education Specialist, UNICEF

# NAS 2021 Team

## National Project Coordinators

### NCERT

Prof. (Dr.) Indrani Bhaduri, Head, ESD & Head NAS Cell, NCERT

### CBSE

Shri Manoj Kumar Srivastava, Director (PE) & Head NAS Cell, CBSE

## Project Team

### Ministry of Education

Sh. Dalbir Singh, Under Secretary

Sh. Pratham Sagar (ASO)

Sh. Atiqur Rahman, YP

### Central Board of Secondary Education (CBSE)

Mrs. Raj Rani Sharma (JS)

Sh. Shambhu Lal Prasad (DS)

Sh. Shekhar Chandra (DS)

Sh. Ramvir Singh (DS)

Ms. Mamta Khanna (PPS)

Sh. Ajay Gupta (AS)

Mrs. Indu Kumari (AS)

Sh. Pradip Sagar (AO)

Sh. Sunder Shairwal (SO)

Sh. Vijay Singh (SO)

Sh. Ghanshyam (SO)

CBSE PE Unit HQ Staff

### National Council of Educational Research & Training (NCERT)

Prof. Tannu Malik

Dr. Ashita Raveendran

Dr. Sarika Saju

Dr. Tulika Dey

Dr. K. Vijayan

Prof Wazalwar

Dr. Madhu B.

Shri Aji Thomas

Prof. Kirti Kapoor

Prof. Sandhya Sahoo

Prof. Sandhya Singh

Prof. Usha Sharma

Prof. Parashar

Dr. R.K. Sharma

Dr. Anil Nainawat

Dr. Santosh

Dr. Anand Arya

Dr. Kavita

Dr. Meena Yadav

Ms. Bhaswati

### National Informatics Centre (NIC)

Sh. Abhishek Kundu, Scientist-D

Sh. Ashwani Kumar, Scientist-C

Sh. Prabhat Mishra Scientist-C

Sh. Sarvendra Kumar Tarun, Scientist-B

### Central Square Foundation (CSF)

Sh. Sourav Chopra

Ms. Pooja Nagpal

Sh. Aditya Sharma



Ministry of Education  
Government of India

# Key Organizations



SCAN QR CODE TO VISIT THE  
WEBSITE

