



# NAS 2017

## NATIONAL ACHIEVEMENT SURVEY

Class : 3, 5 and 8

# UTTAR PRADESH

## State Learning Report

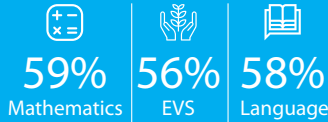


The National Achievement Survey (NAS) was conducted throughout the country on November 13, 2017 for Classes 3, 5 and 8 in government and government aided schools. The survey tools used multiple test booklets with 45 questions in Classes III and V and 60 questions in Class VIII in Mathematics, Language, Sciences and Social Sciences. The competency based test questions developed, reflected the Learning Outcomes developed by the NCERT which were recently incorporated in the RTE Act by the Government of India. Along with the test items, questionnaires pertaining to students, teachers and schools were also used.

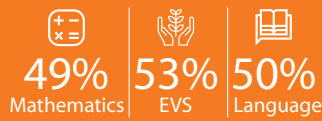
The learning levels of 2.2 million students from 1,10,000 schools across 701 districts in all 36 States/UTs were assessed. The findings of the survey, will help guide education policy, planning and implementation at national, state, district and classroom levels for improving learning levels of children and bringing about qualitative improvements.

# HIGHLIGHTS

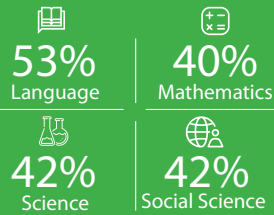
**In Class 3**, on an average, the correct responses to the subjects were as follows:



**In Class 5**, on an average, the correct responses to the subjects were as follows:



**In Class 8**, on an average, the correct responses to the subjects were as follows:



80%

Children could understand what the teacher says in the classroom.



35%

of the school buildings need significant repair.

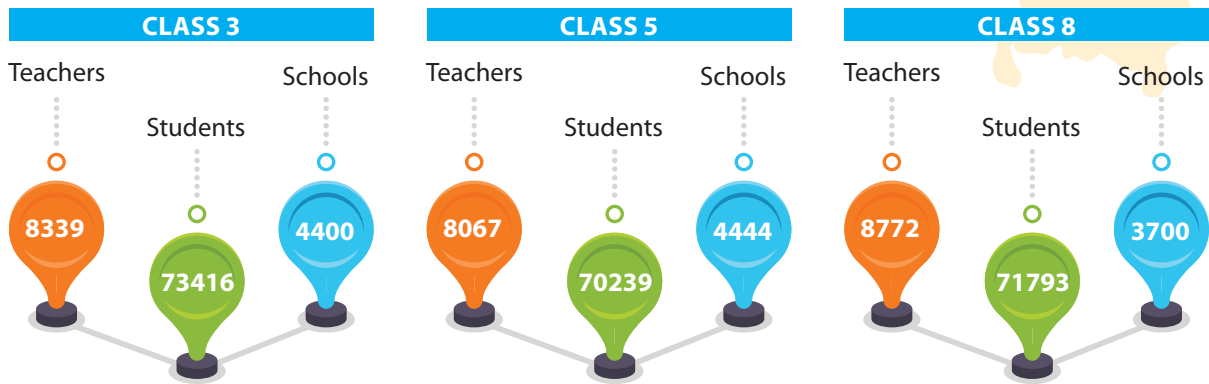
## Highest Performing Learning Outcomes

- **M304:** Constructs and uses the multiplication facts (up till 10) in daily life situations (62)
- **M319:** Records data using tally marks, represents pictorially and draws conclusions (64)
- **M309:** Identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc (67)
- **M302:** Compares numbers up to 999 based on their place values (69)
- **M317:** Reads the time correctly to the hour using a clock/watch (72)

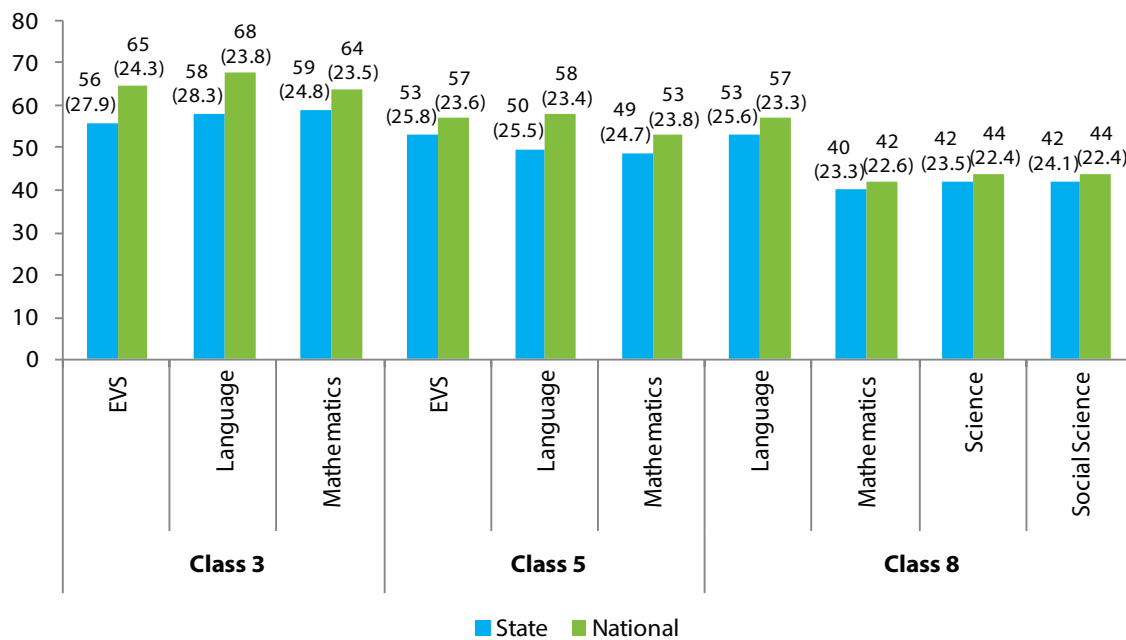
## Lowest Performing Learning Outcomes

- **M818:** Finds surface area and volume of cuboidal and cylindrical object (21)
- **M819:** Draws and interprets bar charts and pie charts (25)
- **M808:** Use various algebraic identities in solving problems of daily life. (29)
- **SST805:** Locates distribution of important minerals e.g. coal and mineral oil on the world map (29)
- **SST625:** Describes the functioning of rural and urban local government bodies in sectors like health and education (30)

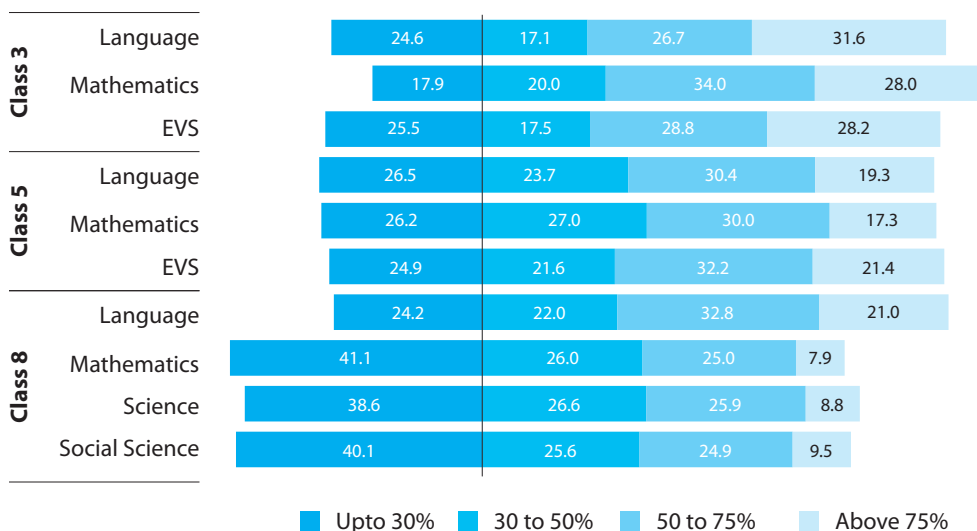
## Participation



## Average Achievement by Classes and Subjects



## Distribution of Students Achievement by Classes and Subjects



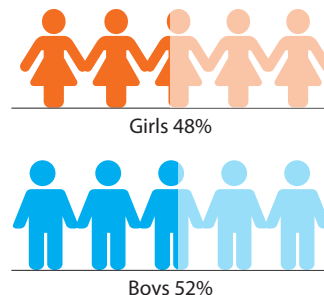
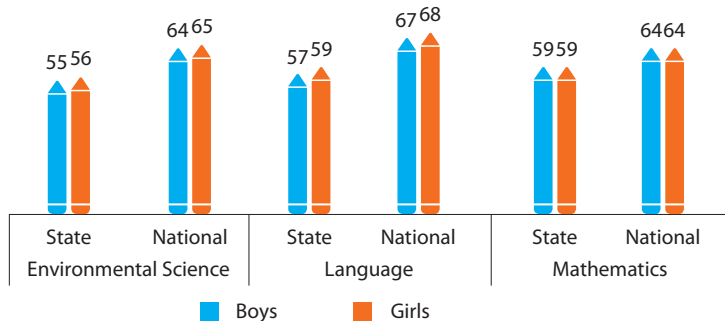
E.g. In Class 3 language, percentage of students achieving upto 30% is 24.6, between 30%-50% is 17.1, between 50%-75% is 26.7 and above 75% is 31.6.

# Class 3 State Results by Student Groups

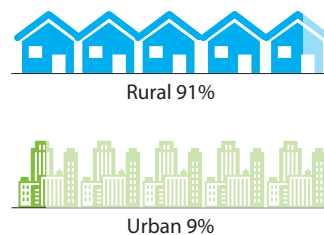
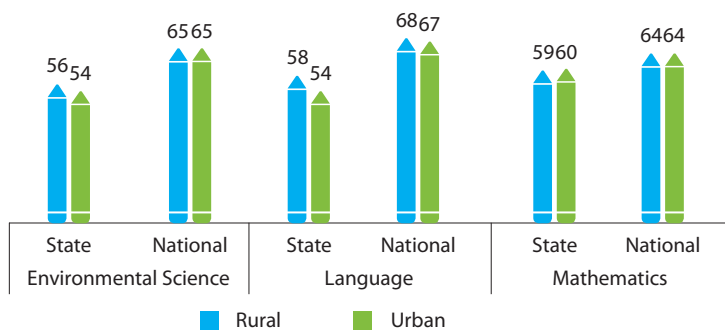
## PERFORMANCE

## PARTICIPATION

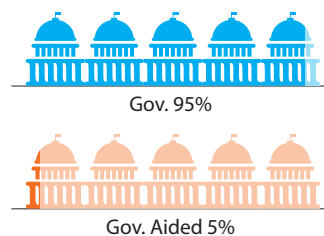
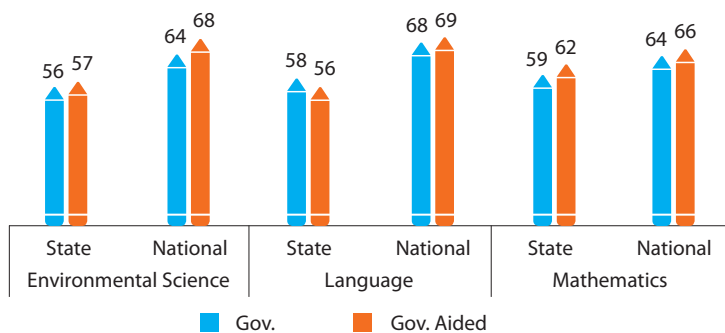
### By Gender



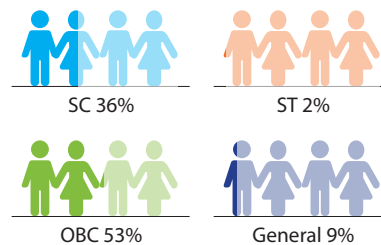
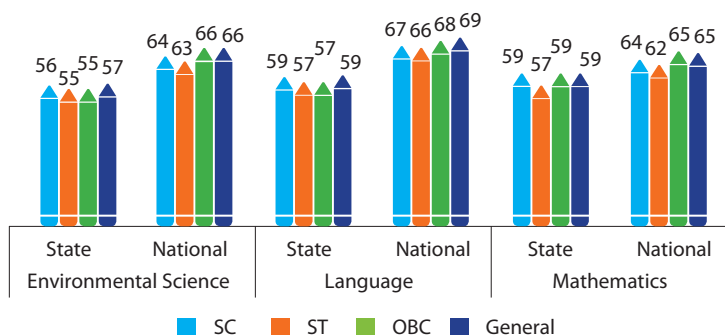
### By School Location



### By School Management



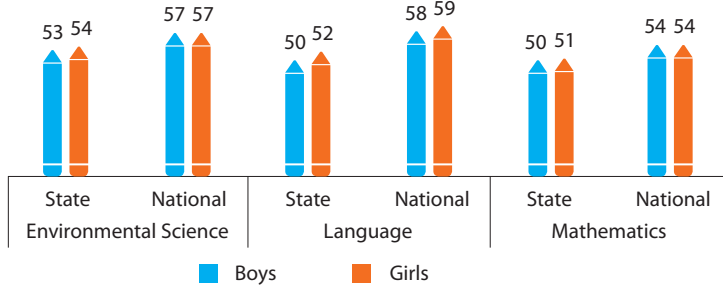
### By Social Groups



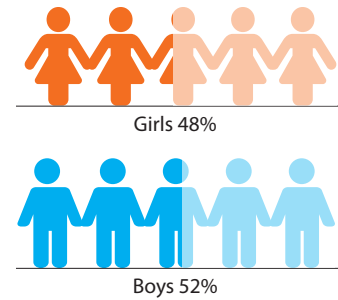
# Class 5 State Results by Student Groups

## PERFORMANCE

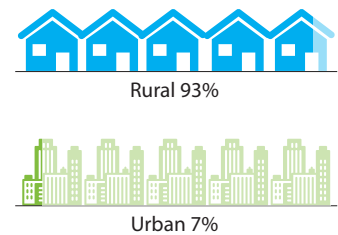
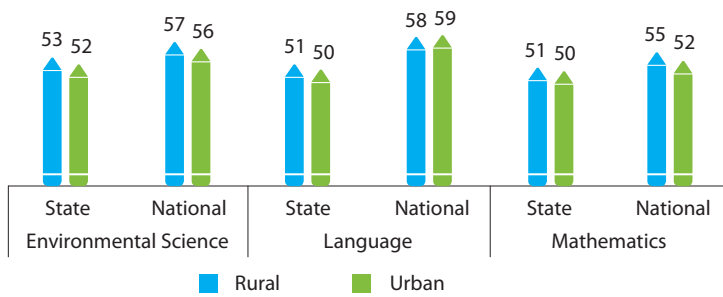
### By Gender



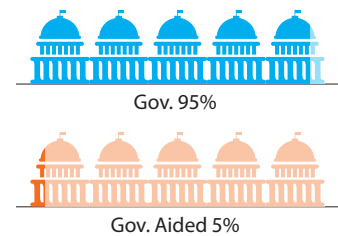
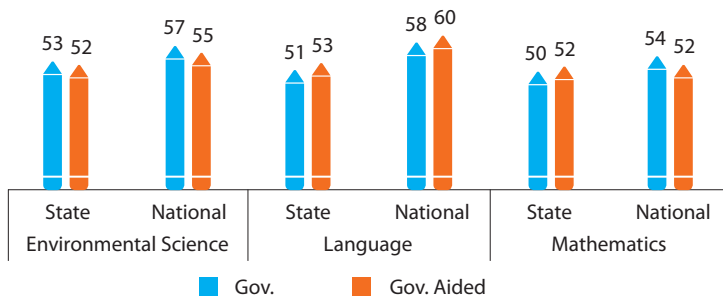
## PARTICIPATION



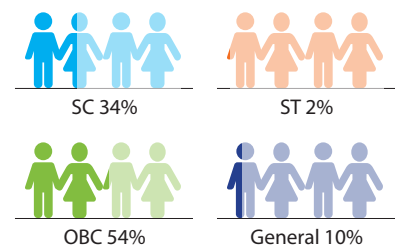
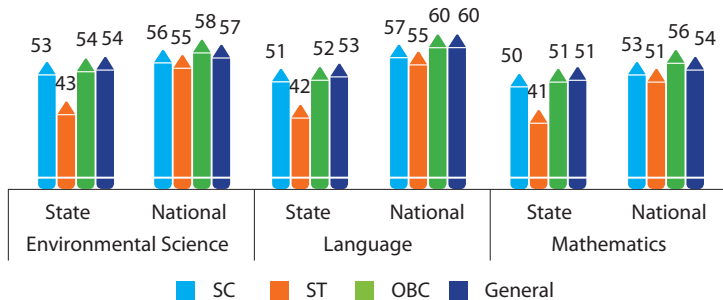
### By School Location



### By School Management



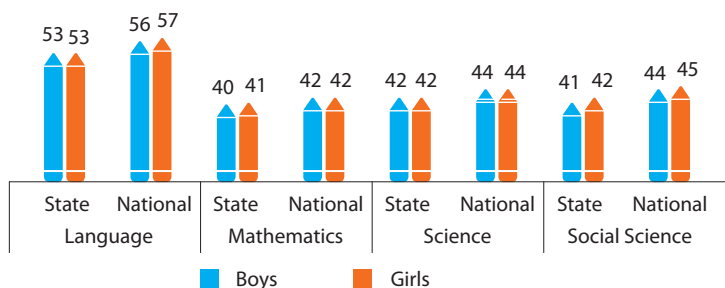
### By Social Groups



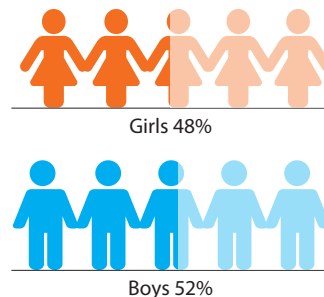
# Class 8 State Results by Student Groups

## PERFORMANCE

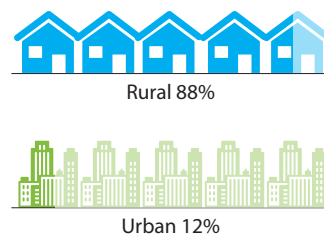
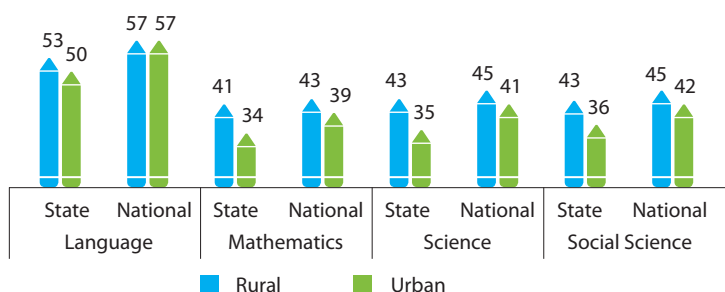
### By Gender



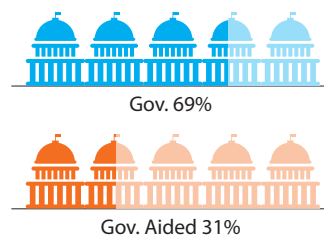
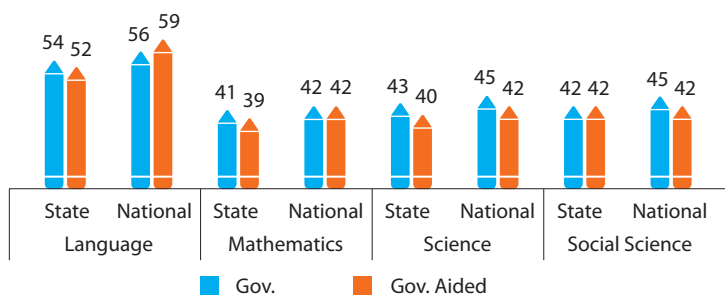
## PARTICIPATION



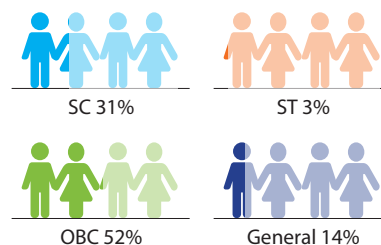
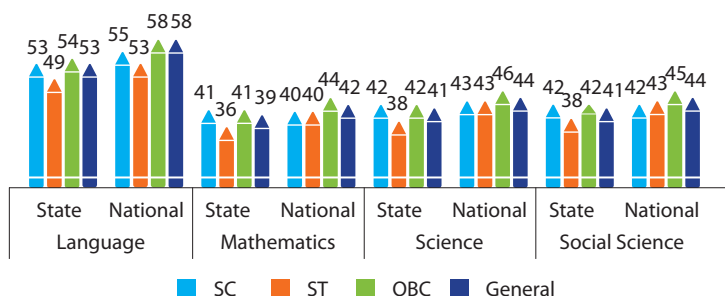
### By School Location



### By School Management



### By Social Groups



## What children say about schools?



**88%** children in Class 3, **90%** in Class 5 and **89%** children in Class 8 like to come to school.



**23%** students in Class 3, **19%** in Class 5 and **22%** in Class 8 find it difficult to travel to school.

**75%** children in Class 3, **78%** in Class 5 and **80%** children in Class 8 could understand what the teachers say in the classroom.







For **65%** students across the grades, the language used at home and by the teachers is the same.



**75%** students in Class 3 and Class 5 and **74%** in Class 8 go out and play during the games period.


## What teachers responded?


 **53%** teachers in Class 3,  
 **54%** in Class 5 and  
 **76%** in Class 8 are teaching the same subjects they have pursued during their higher studies.


  
**3%** Teachers in the state fully understand the curricular goals.


  
**29%**  
Teachers responded that there is lack of adequate toilet facilities.


  
**24%**  
Teachers responded that there is lack of drinking water facilities.


  
**35%**  
Teachers responded that the school buildings need significant repair.

  
**39%**  
Teachers responded that there is lack of electricity.

  
**26%**  
Teachers in the state opined that they are overloaded with work.

  
**5%**  
Teachers in the state are highly satisfied with their job.

  
**83%**  
Teachers in the state have adequate instructional material and supplies.

  
**84%**  
Teachers in the state have adequate work space.



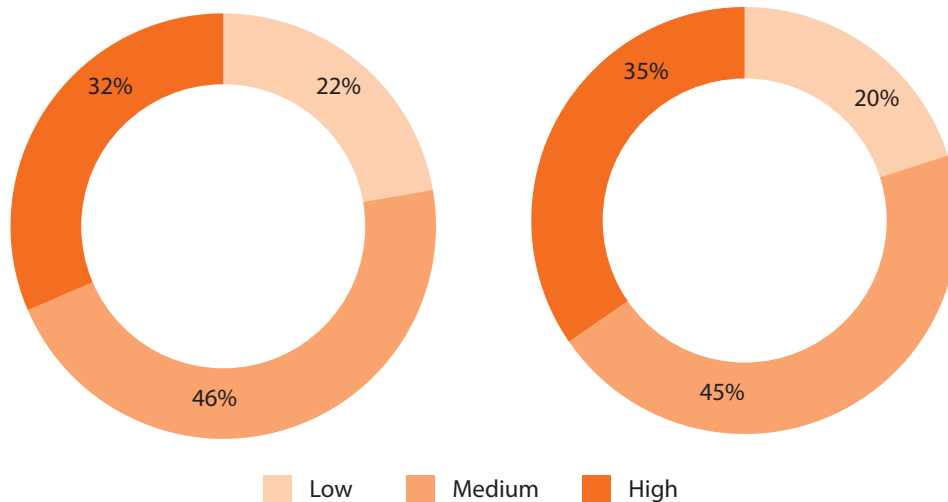
## How do teachers assess children in the classroom?

	Never (in %)	For some lessons (in %)	Almost every lesson (in %)
Oral Tests	9	24	67
Written Tests	5	29	66
Multiple choice type	7	30	63
Observation	7	20	73
Home assignments	6	16	78
Student self assessment	13	48	39
Project work	16	65	19
Peer assessment	11	53	36
Portfolio	18	49	33

## What teachers say about parent’s involvement?

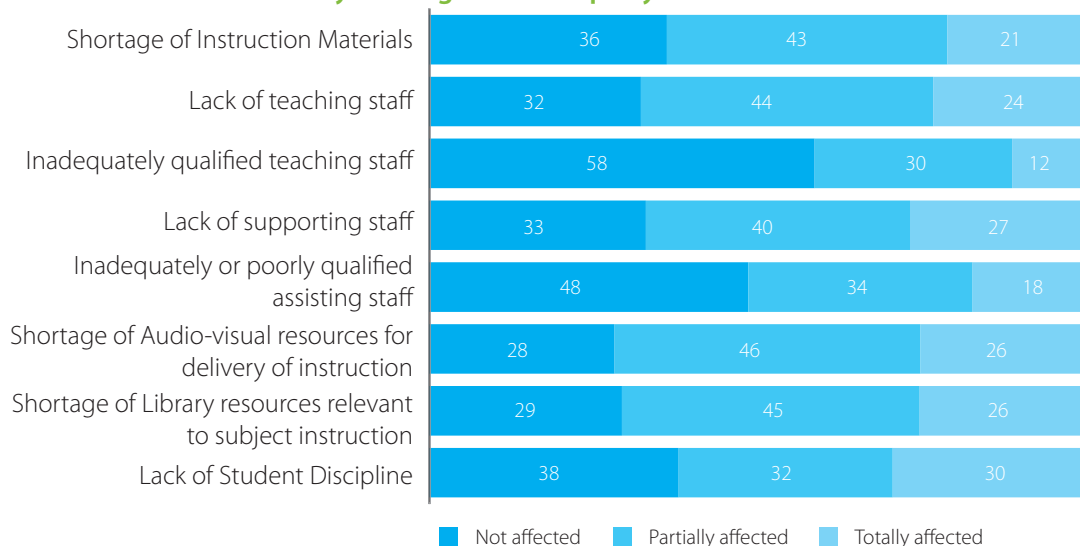
Parental support for students’ Achievement

Parental involvement in school activities



## What the head teacher responded?

School activities affected by shortage or inadequacy



Eg. 36% of the head teacher responded that the school activities were not affected by the shortage of instructional materials.

## Average Performance of the District

### Class 3

District Name	District Mean
Ambedkar Nagar	75
Mathura	73
Meerut	73
Jyotiba Phule Nagar (Amroha)	70
Etawah	70
Barabanki	70
Hathras	70
Rae Bareli	68
Basti	68
Azamgarh	67
Aligarh	66
Bahraich	66
Gautam Buddha Nagar	66
Baghpat	65
Agra	65
Fatehpur	64
Jalaun	64
Chitrakoot	64
Chandauli	64
Ghaziabad	64
Bijnor	64
Jhansi	64
Mainpuri	63
Bareilly	63
Lalitpur	63
Sant Kabir Nagar	63
Auraiya	56
Kanpur Dehat	62
Gonda	62
Firozabad	62
Banda	61
Farrukhabad	61
Bhadoi	61
Siddharth Nagar	60
Sonbhadra	60
Pratapgarh	59
Ballia	59
Kaushambi	59
Allahabad	59
Hapur (Panchsheel Nagar)	58
Kushinagar	58
Etah	58
Deoria	57
Gorakhpur	57
Jaunpur	57
Kannauj	55
Unnao	55
Lucknow	55
Sultanpur	54
Hamirpur (U.P)	54
Faizabad	54
Balrampur	52
Pilibhit	52
Mahoba	51
Shahjahanpur	51
Budaun	51
Amethi - CSM Nagar	49
Kheri	44
Maharajganj	44
Shrawasti	43
Mau	40
Muzaffarnagar	39
Sitapur	35
Saharanpur	33
Kanpur Nagar	32
Hardoi	32
Rampur	32
Bulandshahr	30
Varanasi	29
Moradabad	29
Mirzapur	28
Ghazipur	28
Sambhal (Bhim Nagar)	28
Shamli (Prabudh Nagar)	25
Kanshiram Nagar	23

### Class 5

District Name	District Mean
Ambedkar Nagar	71
Barabanki	66
Azamgarh	63
Jyotiba Phule Nagar (Amroha)	63
Meerut	63
Gautam Buddha Nagar	62
Aligarh	62
Etawah	61
Baghpat	61
Bijnor	61
Hapur (Panchsheel Nagar)	60
Jaunpur	60
Chitrakoot	59
Bhadoi	58
Ghaziabad	58
Auraiya	58
Moradabad	58
Gonda	58
Agra	57
Jalaun	56
Chandauli	56
Bareilly	55
Sant Kabir Nagar	55
Ghazipur	54
Sitapur	54
Mirzapur	54
Deoria	54
Kanpur Nagar	54
Firozabad	54
Bahraich	54
Kushinagar	53
Allahabad	53
Siddharth Nagar	52
Shahjahanpur	52
Lalitpur	51
Gorakhpur	51
Farrukhabad	51
Jhansi	51
Balrampur	50
Pratapgarh	50
Rampur	50
Hamirpur (U.P)	50
Unnao	49
Mahoba	48
Mathura	48
Faizabad	48
Ballia	47
Hardoi	47
Bulandshahr	47
Pilibhit	46
Budaun	46
Rae Bareli	45
Kanshiram Nagar	45
Amethi - CSM Nagar	44
Hathras	44
Etah	44
Sambhal (Bhim Nagar)	43
Kanpur Dehat	43
Kannauj	42
Banda	41
Saharanpur	41
Muzaffarnagar	41
Sonbhadra	41
Maharajganj	41
Sultanpur	41
Shamli (Prabudh Nagar)	39
Basti	38
Shrawasti	37
Lucknow	37
Mainpuri	35
Varanasi	33
Mau	31
Kheri	27
Fatehpur	22
Kaushambi	20

### Class 8

District Name	District Mean
Ambedkar Nagar	59
Barabanki	56
Auraiya	55
Jalaun	55
Fatehpur	55
Jaunpur	54
Basti	54
Bhadoi	54
Ballia	52
Mathura	51
Bijnor	51
Jyotiba Phule Nagar	51
Gonda	51
Etawah	51
Hathras	51
Pilibhit	50
Lalitpur	50
Chandauli	50
Unnao	49
Kanpur Dehat	49
Mainpuri	48
Sultanpur	48
Farrukhabad	48
Pratapgarh	48
Rae Bareli	47
Kaushambi	47
Aligarh	47
Azamgarh	47
Hamirpur (U.P)	46
Faizabad	45
Jhansi	45
Siddharth Nagar	45
Shahjahanpur	45
Meerut	44
Agra	44
Balrampur	44
Amethi - CSM Nagar	44
Kushinagar	44
Allahabad	44
Bareilly	44
Baghpat	43
Gautam Buddha Nagar	43
Hapur (Panchsheel Nagar)	43
Sonbhadra	42
Ghaziabad	42
Saharanpur	42
Kanshiram Nagar	41
Gorakhpur	40
Sitapur	40
Muzaffarnagar	39
Lucknow	39
Chitrakoot	39
Mahoba	39
Sant Kabir Nagar	38
Deoria	38
Budaun	37
Rampur	37
Shrawasti	37
Moradabad	37
Mau	37
Kanpur Nagar	32
Bulandshahr	31
Firozabad	31
Kheri	31
Hardoi	31
Maharajganj	31
Sambhal (Bhim Nagar)	29
Varanasi	29
Bahraich	28
Mirzapur	27
Banda	26
Etah	24
Shamli (Prabudh Nagar)	22
Kannauj	21
Ghazipur	19

## Performance of the State in Learning Outcomes (LOs)

Annex - I

LO Code	Learning Outcome Class 3	Average Performance (in Percent)
<b>EVS</b>		
E302	Identifies simple features (e.g. movement, at places found/ kept, eating habits, sounds) of animals and birds in the immediate surroundings	52
E303	Identifies relationships with and among family members	54
E304	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 pro-cesses, etc.) at home/school/ neighbourhood	53
E305	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	54
E307	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)	56
E309	Identifies directions, location of objects/places in simple maps using signs/symbols/verbally	50
E310	Guesses properties, estimates quantities of materials/ activities in daily life and verifies using symbols/non-standard units	60
E311	Records observations, experiences, information on objects/ activities/places visited in different ways and predicts patterns etc	48
E313	Observes rules in games (local, indoor, outdoor)	30
E314	Voices 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	58
<b>Language</b>		
L304	Reads small texts with comprehension i.e., identifies main ideas, details, sequence and draws conclusions	55
L312	Reads printed scripts on the classroom walls: poems, posters, charts etc	55
<b>Mathematics</b>		
M301	Reads and writes numbers up to 999 using place value	51
M302	Compares numbers up to 999 based on their place values	69

LO Code	Learning Outcome Class 3	Average Performance (in Percent)
M303	Solves simple daily life problems using addition and subtraction of three digit numbers with and without regrouping	51
M304	Constructs and uses the multiplication facts (up till 10) in daily life situations	62
M305	Analyses and applies an appropriate number operation in the situation/ context	52
M306	Explains the meaning of division facts by equal grouping/ sharing and finds it by repeated subtraction	56
M309	Identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc	67
M311	Fills a given region leaving no gaps using a tile of a given shape	40
M312	Estimates and measures length and distance using standard units like centimetres or metres & identifies relationships	36
M317	Reads the time correctly to the hour using a clock/watch	72
M318	Extends patterns in simple shapes and numbers	51
M319	Records data using tally marks, represents pictorially and draws conclusions	64

LO Code	Learning Outcome Class 5	Average Performance (in Percent)
<b>EVS</b>		
E403	Identifies relationship with and among family members in extended family	48
E410	Records observations/experiences/information for objects, activities, phenomena, places visited in different ways and predicts patterns and activities/ phenomena	48
E501	Explains the super senses and unusual features (sight, smell, hear, sleep, sound, etc.) of animals and their responses to light, sound, food etc	49
E503	Describes the interdependence among animals, plants and humans	52
E504	Explains the role and functions of different institutions in daily life (Bank, Panchayat, cooperatives, police station, etc.)	58
E505	Establishes linkages among terrain, climate, resources (food, water, shelter, livelihood) and cultural life. (e.g. life in distant/ difficult areas like hot/cold deserts)	37
E506	Groups objects, materials, activities for features/properties such as shape, taste, colour , texture, sound, traits etc	43
E507	Traces the changes in practices, customs, techniques of past and present through coins, paintings, mon-uments, museum etc. and interacting with elders	47
E508	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	51
E509	Records observations/experiences/information in an organized manner (e.g. in tables/ sketches/ bar graphs/ pie charts) and predicts patterns in activities/phenomena to establish relation between cause and effect	48
E510	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	55
E512	Voices opinions on issues observed/experienced and relates practices /happenings to larger issues of society	50
E513	Suggests ways for hygiene, health, managing waste, disaster/ emergency situations and protecting/saving resources	61
<b>Language</b>		
L504	Reads and comprehends independently storybooks, news items/ headlines, advertisements etc	49
L508	Reads text with comprehension, locates details and sequence of events	48

LO Code	Learning Outcome Class 5	Average Performance (in Percent)
<b>Mathematics</b>		
M401	Applies operations of numbers in daily life situations	44
M412	Explores the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit	48
M418	Calculates time intervals/duration of familiar daily life events by using forward or backward counting/addition and subtraction	61
M421	Represent the collected information in tables and bar graphs and draws inferences from these	50
M501	Reads and writes numbers bigger than 1000 being used in her/his surroundings	60
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	43
M505	Finds the number corresponding to part of a collection	52
M506	Identifies and forms equivalent fractions of a given fraction	41
M508	Converts fractions into decimals and vice versa	45
M509	Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing	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	54
M513	Estimates the volume of a solid body in known units	40
M514	Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals	44
M515	Identifies the pattern in triangular number and square number	43
M516	Collects data related to various daily life situations, represents it in tabular form and as bar graphs and interprets it	53

LO Code	Learning Outcome Class 8	Average Performance (in Percent)
<b>Language</b>		
L813	Read textual/non-textual materials with comprehension and identifies the details, characters, main idea and sequence of ideas and events while reading	51
<b>Mathematics</b>		
M601	Solves problems involving large numbers by applying appropriate operations	40
M606	Solves problems on daily life situations involving addition and subtraction of fractions / decimals	47
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	43
M621	Arranges given/collected information in the form of table, pictograph and bar graph and interprets them	37
M702	Interprets the division and multiplication of fractions	37
M705	Solves problems related to daily life situations involving rational numbers	41
M706	Uses exponential form of numbers to simplify problems involving multiplication and division of large numbers	42
M707	Adds/subtracts algebraic expressions	53
M710	Solves problems related to conversion of percentage to fraction and decimal and vice versa	37
M717	Finds out approximate area of closed shapes by using unit square grid/ graph sheet	34
M719	Finds various representative values for simple data from her/ his daily life contexts like mean, median and mode	41
M721	Interprets data using bar graph such as consumption of electricity is more in winters than summer	37
M801	Generalises properties of addition, subtraction, multiplication and division of rational numbers through patterns	31
M802	Finds rational numbers between two given rational numbers	38
M803	Proves divisibility rules of 2, 3, 4, 5, 6, 9 and 11	50
M804	Finds squares, cubes, square roots and cube roots of numbers using different methods	48
M808	Use various algebraic identities in solving problems of daily life	29
M812	Verifies properties of parallelogram and establishes the relationship between them through reasoning	30
M818	Finds surface area and volume of cuboidal and cylindrical object	21
M819	Draws and interprets bar charts and pie charts	25

LO Code	Learning Outcome Class 8	Average Performance (in Percent)
<b>Science</b>		
SCI703	Classifies materials and organisms based on properties/ characteristics	40
SCI704	Conducts simple investigation to seek answers to queries	30
SCI705	Relates processes and phenomenon with causes	38
SCI708	Measures and calculates e.g., temperature; pulse rate; speed of moving objects; time period of a simple pendulum, etc	53
SCI710	Plots and interprets graphs	35
SCI711	Constructs models using materials from surroundings and explains their working	36
SCI801	Differentiates materials, organism and processes	45
SCI804	Relates processes and phenomenon with causes	38
SCI805	Explains processes and phenomenon	34
SCI807	Measures angles of incidence and reflection, etc	42
SCI811	Applies learning of scientific concepts in day-to-day life	40
SCI813	Makes efforts to protect environment	55
<b>Social Science</b>		
SST605	Identifies latitudes and longitudes, e.g., poles, equator, tropics, States/UTs of India and other neighbouring countries on globe and the world map	43
SST610	Locates important historical sites, places on an outline map of India	37
SST625	Describes the functioning of rural and urban local government bodies in sectors like health and education	30
SST703	Explains preventive actions to be undertaken in the event of disasters	46
SST704	Describes formation of landforms due to various factors	36
SST722	Explains the significance of equality in democracy	36
SST726	Describes the process of election to the legislative assembly	45
SST731	Explains the functioning of media with appropriate examples from newspapers	49
SST733	Differentiates between different kinds of markets	55
SST734	Traces how goods travel through various market places	49
SST802	Describes major crops, types of farming and agricultural practices in her/his own area/state	46
SST805	Locates distribution of important minerals e.g. coal and mineral oil on the world map	29
SST807	Justifies judicious use of natural resources	41
SST809	Draws interrelationship between types of farming and development in different regions of the world	35



LO Code	Learning Outcome Class 8	Average Performance (in Percent)
SST810	Distinguishes the modern period from the medieval and the ancient periods through the use of sources	40
SST815	Explains the origin, nature and spread of the revolt of 1857 and the lessons learned from it	46
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	30
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	35
SST823	Applies the knowledge of the Fundamental Rights to find out about their violation, protection and pro-motion in a given situation	34
SST827	Describes the process of making a law. (e.g. Domestic Violence Act, RTI Act, RTE Act)	42
SST831	Identifies the role of Government in providing public facilities such as water, sanitation, road, electricity etc., and recognizes their availability	39
SST833	Draws bar diagram to show population of different countries/ India/states	45

## Core Team

### MHRD

**Ms. Rina Ray**, Secretary, School Education and Literacy (SE&L)

**Shri Anil Swarup**, Former Secretary, School Education & Literacy, SE&L, (till 30<sup>th</sup> June 2018)

**Ms. Anita Karwal**, Chairperson, CBSE and Chairperson, NCTE

**Shri. Maneesh Garg**, Joint Secretary, School Education and Literacy (SE&L)

**Shri. Girish Chandrashekhar Hosur**, Director, School Education and Literacy (SE&L)

**Ms. R. Savithri**, DDG, Statistics

### NCERT

**Prof. Hrushikesh Senapaty**, Director, NCERT

**Prof. Indrani Bhaduri**, Head, ESD and National Coordinator NAS

**Prof. Sridhar Srivastava**, Professor, ESD

**Prof. Veer Pal Singh**, Professor, ESD

**Prof. A.D. Tewari**, Professor, ESD

**Dr. Pratima Kumari**, Associate Professor

**Dr. Sukhvinder**, Assistant Professor

**Dr. Vishal D. Pajankar**, Assistant Professor

**Dr. Satya Bhushan**, Assistant Professor

**Dr. Gulfam**, Assistant Professor

**Shri N.L. Srinivas**, Sr. System Analyst

**Md. Arif Sadiq**, Programmer

**Shri Vishwa Bandhu**, Programmer

### UN ORGANIZATION /EXTERNAL

**Dr. Rudra Sahoo**, Education Specialist, UNICEF

### STATE FUNCTIONARIES

**State Directorate of Education, SCERTs, SIEs, DIETs, Schools**



## **Examinations**

An examination is a formal test of an individual student's knowledge or proficiency in a subject on the curriculum. The results of examinations apply to individual students, enabling them to progress through school or apply for further education or employment. Taken together, examination results provide an overall snapshot of students' performance at the end of a year of a course of learning at school. Examination results do not indicate the reasons behind high or low achievement of students.

## **Achievement Surveys**

Achievement Surveys provide a measure of learning across a representative sample of students. They allow classification of students at a specific grade level by their ability (what students know and can do) in different subjects on the curriculum. National Achievement Surveys provide a "Health Check" to the education system by analyzing achievement based on a range of background factors (School, home, teachers). They potentially enable policy makers and practitioners to address the challenges to enhance student learning.

