



# NAS 2017

## NATIONAL ACHIEVEMENT SURVEY

Class : 3, 5 and 8

# KARNATAKA

## 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.

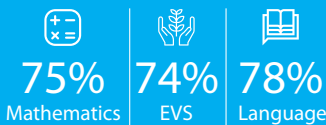


EDUCATIONAL SURVEY DIVISION  
राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्  
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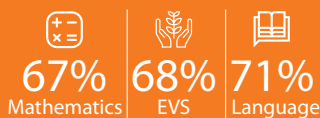


# HIGHLIGHTS

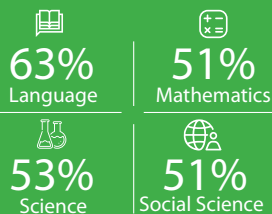
**In Class 3**, on an average, the correct responses to the subjects were as follows:



**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:



88%

Children could understand what the teacher says in the classroom.



22%

of the school buildings need significant repair.

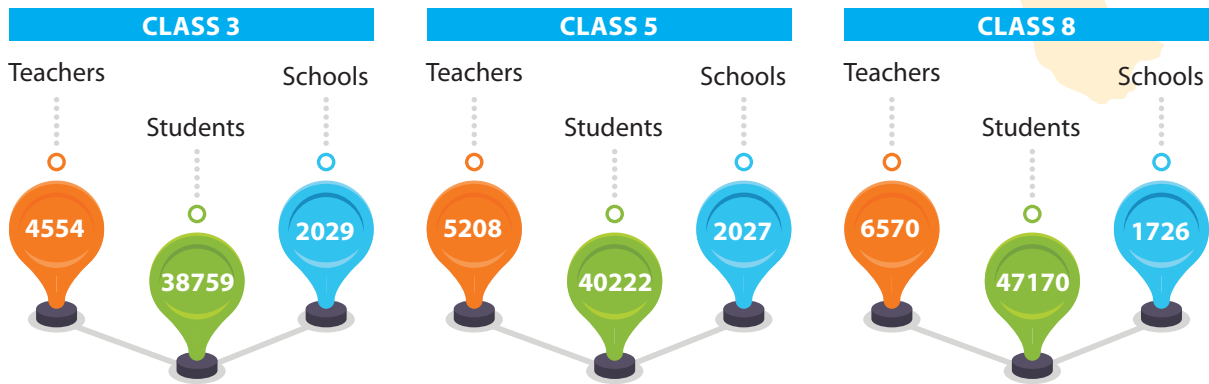
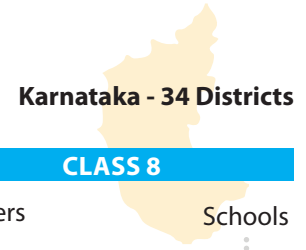
## Highest Performing Learning Outcomes

- **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 (84)
- **M317:** Reads the time correctly to the hour using a clock/watch (84)
- **M309:** Identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc (85)
- **M319:** Records data using tally marks, represents pictorially and draws conclusions (86)
- **M302:** Compares numbers up to 999 based on their place values (87)

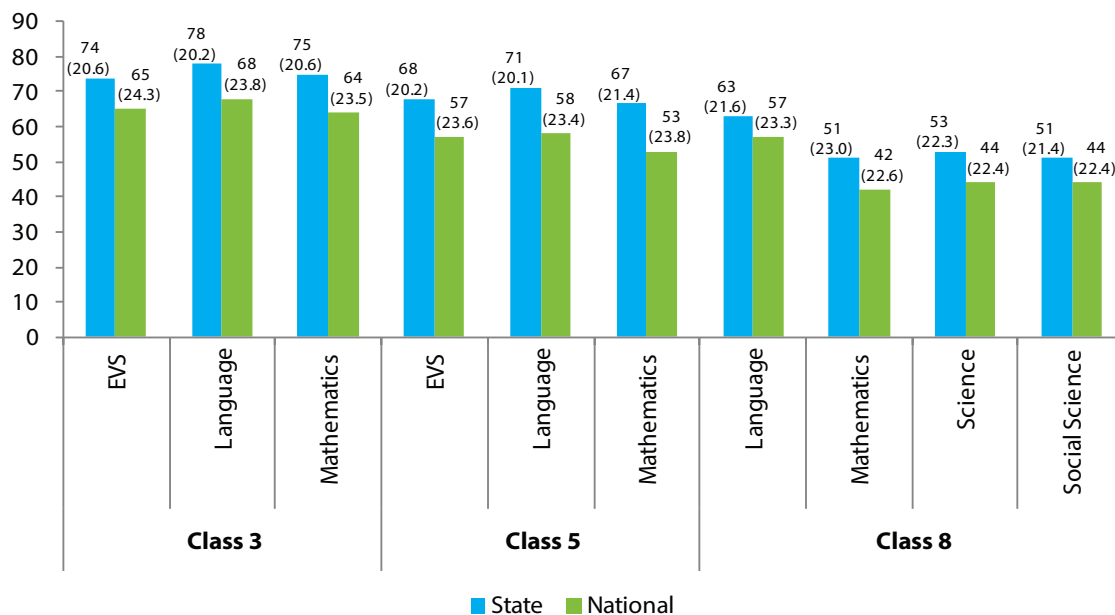
## Lowest Performing Learning Outcomes

- **SST625:** Describes the functioning of rural and urban local government bodies in sectors like health and education (26)
- **SST610:** Locates important historical sites, places on an outline map of India (32)
- **M801:** Generalises properties of addition, subtraction, multiplication and division of rational numbers through patterns (35)
- **SST831:** Identifies the role of Government in providing public facilities such as water, sanitation, road, electricity etc., and recognizes their availability (35)
- **M818:** Finds surface area and volume of cuboidal and cylindrical object (35)

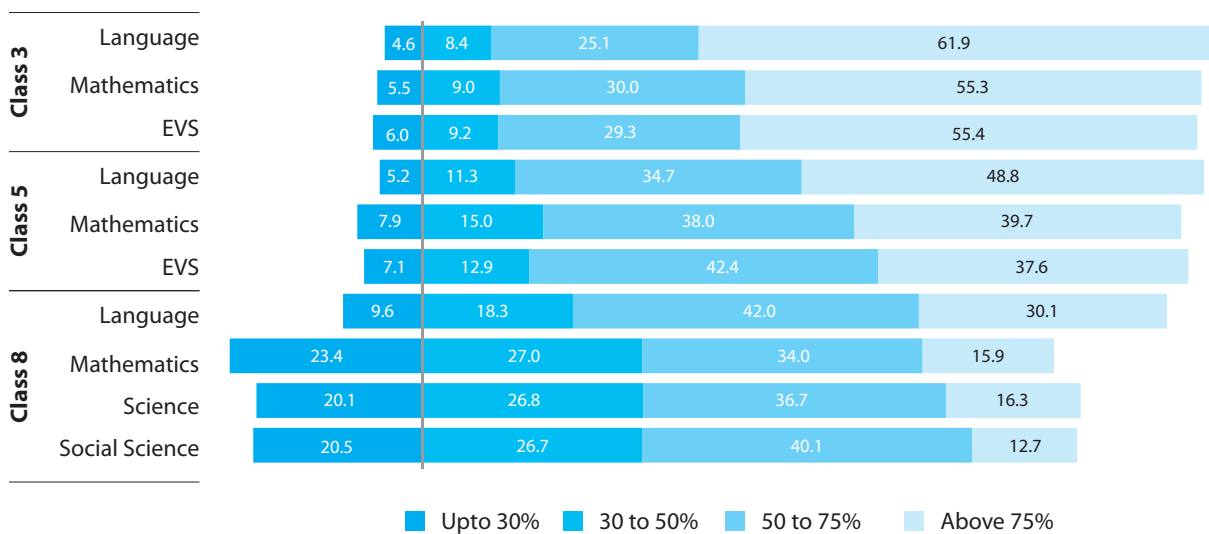
## Participation



## Average Achievement by Classes and Subjects



## Distribution of Students Achievement by Classes and Subjects

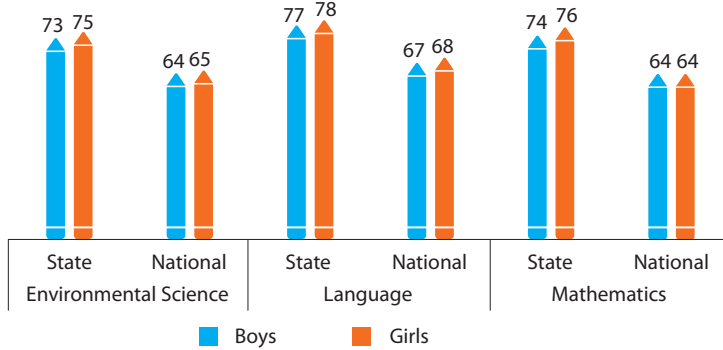


E.g. In Class 3 language, percentage of students achieving upto 30% is 4.6, between 30%-50% is 8.4, between 50%-75% is 25.1 and above 75% is 61.9.

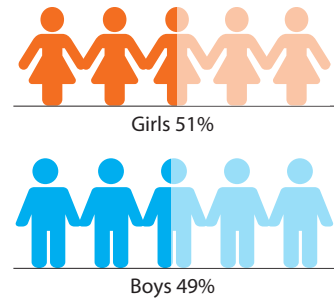
# Class 3 State Results by Student Groups

## PERFORMANCE

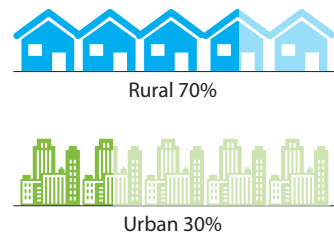
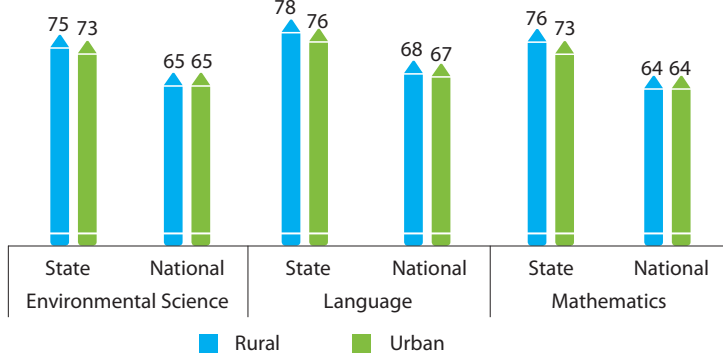
### By Gender



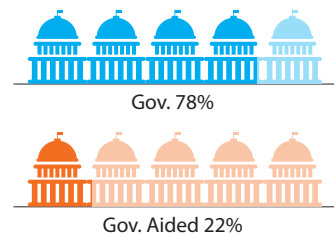
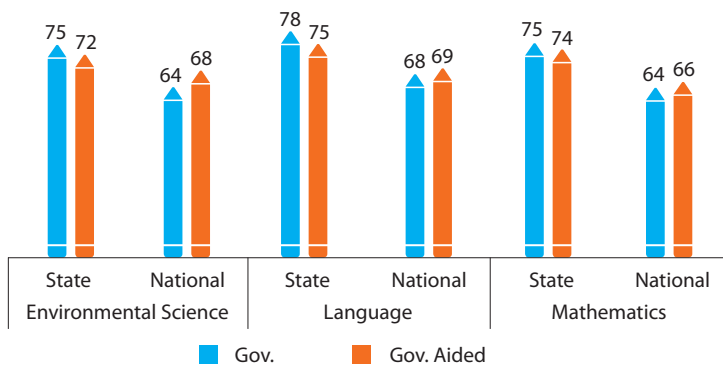
## PARTICIPATION



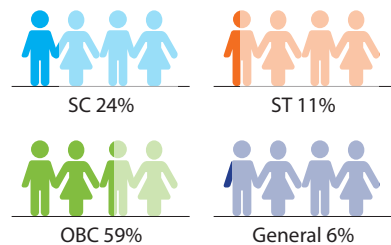
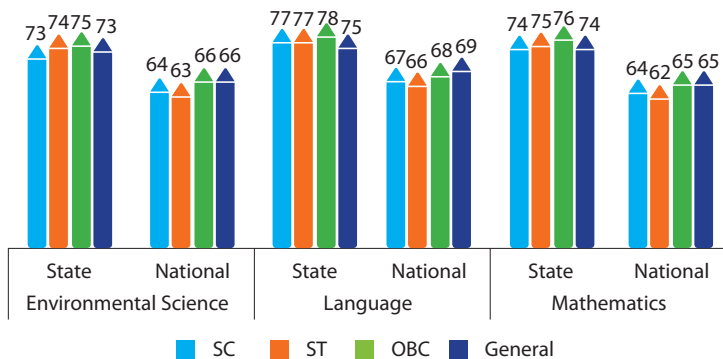
### By School Location



### By School Management



### By Social Groups

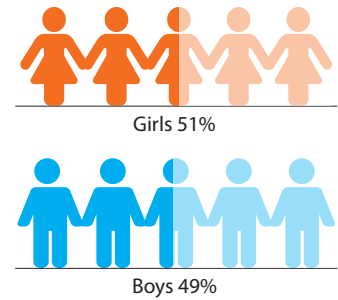
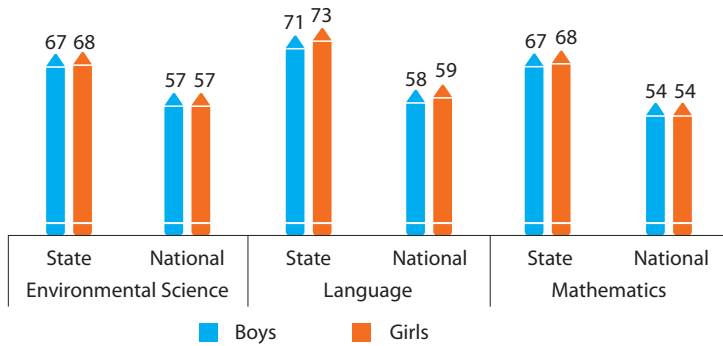


# Class 5 State Results by Student Groups

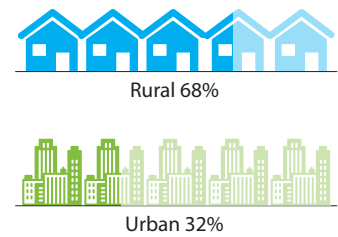
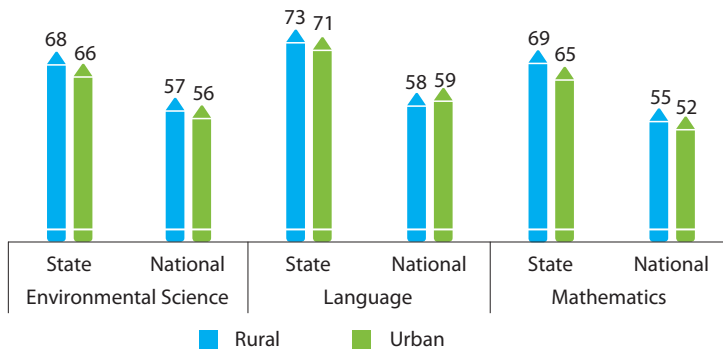
## PERFORMANCE

## PARTICIPATION

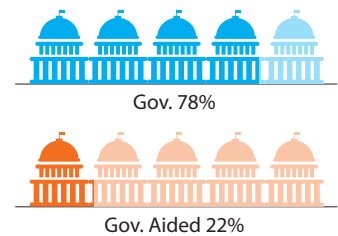
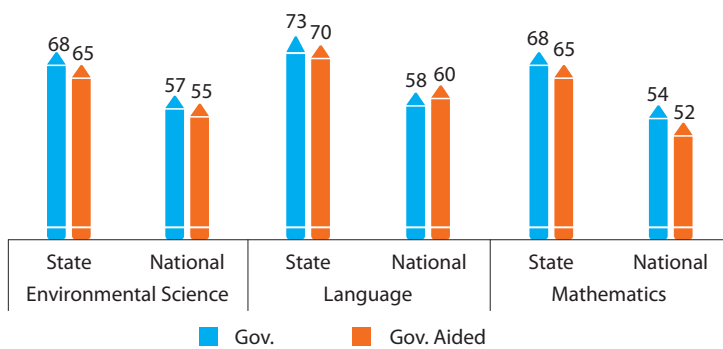
### By Gender



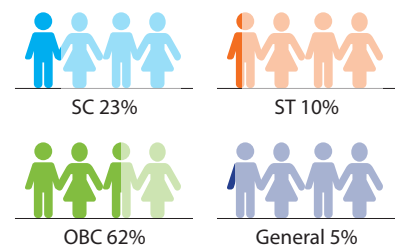
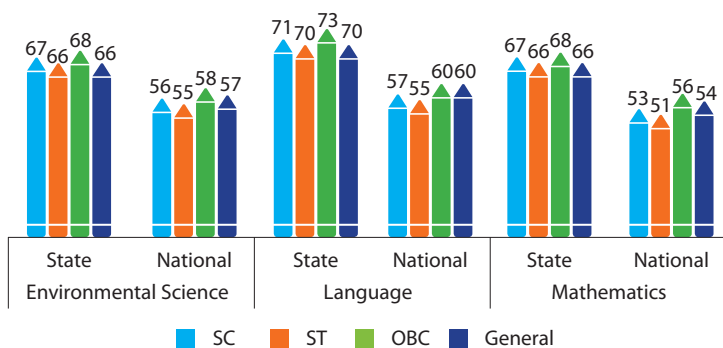
### By School Location



### By School Management



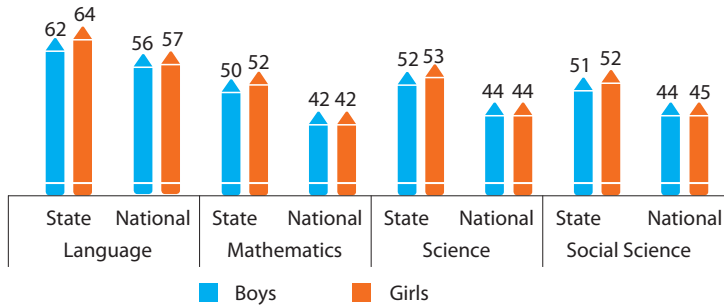
### By Social Groups



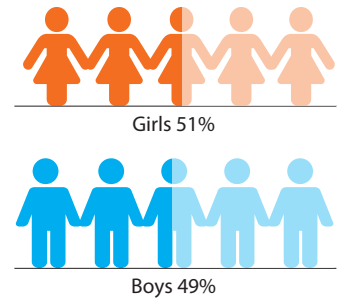
# Class 8 State Results by Student Groups

## PERFORMANCE

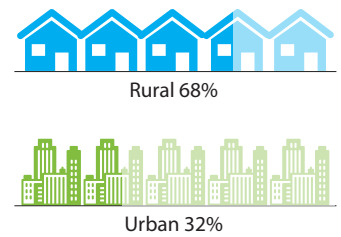
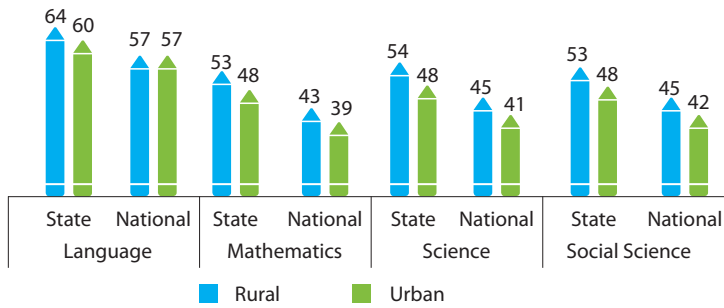
### By Gender



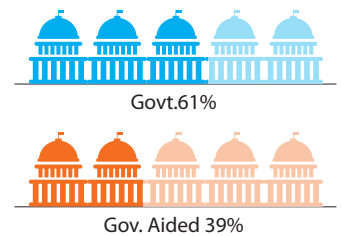
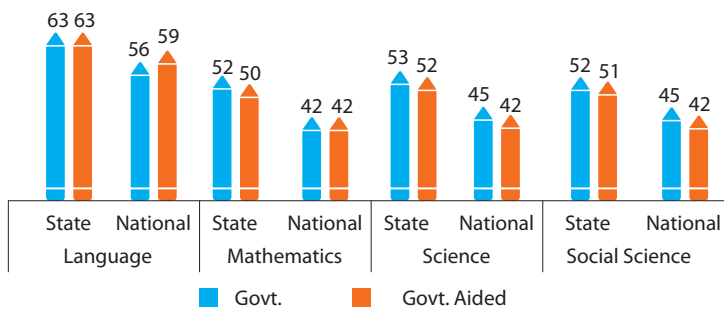
## PARTICIPATION



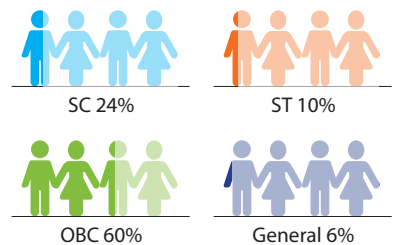
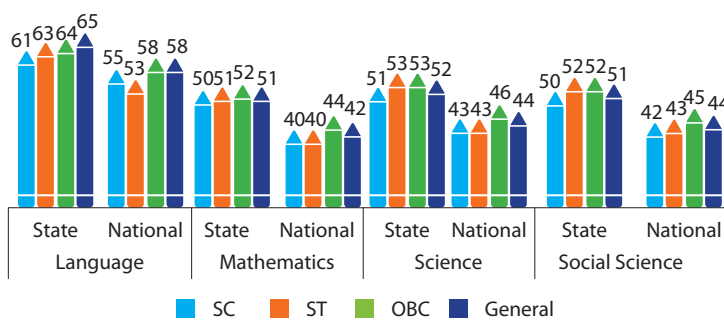
### By School Location



### By School Management



### By Social Groups





## What children say about schools?



**95%** children in Class 3, Class 5 and **96%** children in Class 8 like to come to school.



**24%** students in Class 3, **23%** in Class 5 and **17%** students in Class 8 find it difficult to travel to school.

**86%** children in Class 3 and **88%** in Class 5 and Class 8 could understand what teachers say in the classroom.







For **73%** students in Class 3, **74%** in Class 5 and **70%** students in Class 8, the language used at home and by the teachers is the same.




**81%** students in Class 5 and **80%** students in Class 3 and Class 8 go out and play during the games period.


## What teachers responded?


 **54%** teachers in Class 3,  
 **57%** in Class 5 and  
 **90%** in Class 8 are teaching the same subjects they have pursued during their higher studies.


  
**83%** teachers in the state fully understand the curricular goals.


  
**12%**  
teachers responded that there is lack of adequate toilet facilities.


  
**8%**  
teachers responded that there is lack of drinking water facilities.


  
**22%**  
teachers responded that the school buildings needs significant repair.

  
**7%**  
teachers responded that there is lack of electricity.

  
**18%**  
Teachers in the state opined that they are overloaded with work.

  
**79%**  
Teachers in the state are highly satisfied with their job.

  
**94%**  
Teachers in the state have adequate instructional material and supplies.

  
**92%**  
Teachers in the state have adequate work space.



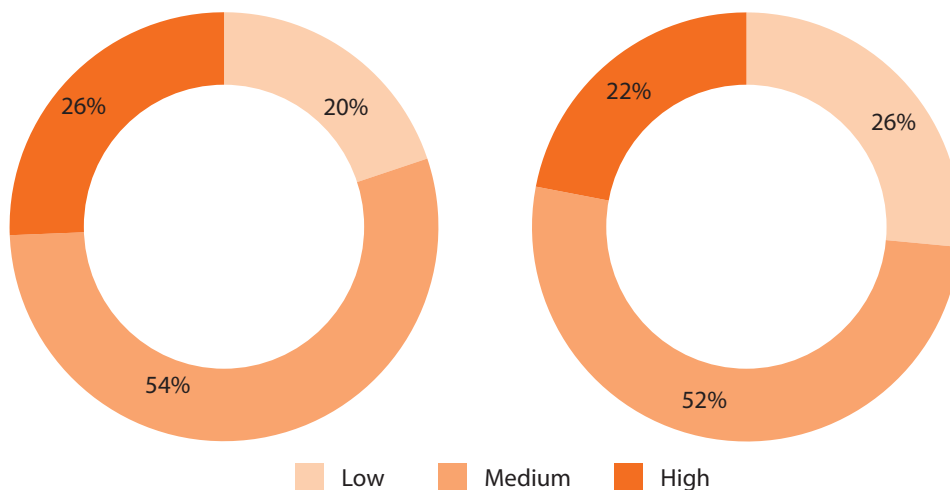
## How do teachers assess children in the classroom?

	Never (in %)	For some lessons (in %)	Almost every lesson (in %)
Oral Tests	3	34	63
Written Tests	2	31	68
Multiple choice type	2	52	45
Observation	2	47	51
Home assignments	2	15	83
Student self assessment	5	36	59
Project work	2	60	39
Peer assessment	5	67	27
Portfolio	7	49	44

## What teachers say about parent's involvement?

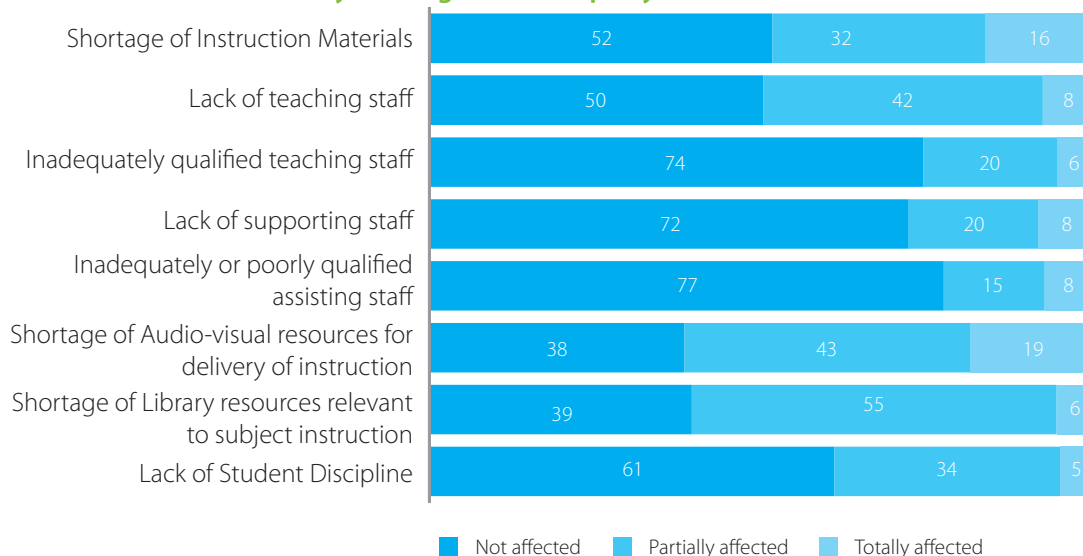
Parental support for students' Achievement

Parental involvement in school activities



## What the head teacher responded?

School activities affected by shortage or inadequacy



Eg. 52% 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
Bagalkot	83
Belagavi Chikkodi	81
Belagavi	80
Hassan	80
Ramanagara	79
Haveri	79
Davanagere	79
Dharwad	79
Chitradurga	78
Gadag	78
Uttara Kannada	78
Bengaluru Rural	77
Yadagiri	76
Vijayapura	76
Udupi	76
Raichur	75
Uttara Kannada Sirsi	75
Chamarajanagara	75
Tumakuru	75
Ballari	74
Mysuru	73
Koppal	73
Chikkaballapura	72
Bengaluru U South	72
Mandya	72
Dakshina Kannada	71
Tumakuru Madhugiri	71
Shivamogga	71
Kolar	69
Chikkamagaluru	69
Kodagu	68
Bidar	67
Kalaburgi	65
Bengaluru U North	65

### Class 5

District Name	District Mean
Belagavi Chikkodi	77
Bagalkot	76
Belagavi	75
Hassan	74
Gadag	74
Uttara Kannada	74
Davanagere	74
Chitradurga	73
Vijayapura	73
Raichur	73
Yadagiri	73
Ballari	72
Haveri	71
Tumakuru	71
Koppal	70
Dharwad	69
Bengaluru Rural	69
Ramanagara	69
Uttara Kannada Sirsi	67
Chamarajanagara	65
Bengaluru U South	64
Mandya	64
Kolar	64
Tumakuru Madhugiri	64
Dakshina Kannada	63
Bengaluru U North	63
Chikkaballapura	63
Bidar	62
Udupi	62
Kodagu	61
Kalaburgi	61
Chikkamagaluru	60
Mysuru	60
Shivamogga	59

### Class 8

District Name	District Mean
Belagavi Chikkodi	68
Bagalkot	65
Belagavi	64
Ballari	60
Yadagiri	60
Vijayapura	59
Raichur	58
Tumakuru Madhugiri	58
Dharwad	58
Davanagere	57
Gadag	57
Koppal	57
Chitradurga	57
Hassan	57
Ramanagara	57
Uttara Kannada	55
Haveri	55
Bidar	55
Bengaluru Rural	54
Tumakuru	54
Uttara Kannada Sirsi	51
Chamarajanagara	51
Kalaburgi	50
Shivamogga	48
Bengaluru U South	47
Mysuru	47
Mandya	47
Kolar	47
Kodagu	47
Udupi	46
Dakshina Kannada	46
Chikkamagaluru	43
Chikkaballapura	43
Bengaluru U North	41

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

Annex-1

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	71
E303	Identifies relationships with and among family members	66
E304	Identifies objects, signs (vessels, stoves, transport, means of communication, transport, signboards etc.), places (types of houses/shelters, bus stand, petrol pump etc.) activities (work people do, cooking processes, etc.) at home/school/ neighbourhood	66
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	76
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)	78
E309	Identifies directions, location of objects/places in simple maps using signs/symbols/verbally	73
E310	Guesses properties, estimates quantities of materials/ activities in daily life and verifies using symbols/non-standard units	81
E311	Records observations, experiences, information on objects/ activities/places visited in different ways and predicts patterns etc	67
E313	Observes rules in games (local, indoor, outdoor)	47
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	84
<b>Language</b>		
L304	Reads small texts with comprehension i.e., identifies main ideas, details, sequence and draws conclusions	77
L312	Reads printed scripts on the classroom walls: poems, posters, charts etc	75
<b>Mathematics</b>		
M301	Reads and writes numbers upto 999 using place value	72
M302	Compares numbers up to 999 based on their place value	87

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	70
M304	Constructs and uses the multiplication facts (up till 10) in daily life situations	76
M305	Analyses and applies an appropriate number of operations in the situation/ context	73
M306	Explains the meaning of division facts by equal grouping/ sharing and finds it by repeated subtraction	69
M309	Identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc	85
M311	Fills a given region leaving no gaps using a tile of a given shape	55
M312	Estimates and measures length and distance using standard units like centimetres or metres & identifies relationships	39
M317	Reads the time correctly to the hour using a clock/watch	84
M318	Extends patterns in simple shapes and numbers	67
M319	Records data using tally marks, represents pictorially and draws conclusions	86

LO Code	Learning Outcome Class 5	Average Performance (in Percent)
<b>EVS</b>		
E403	Identifies relationship with and among family members in extended family	73
E410	Records observations/experiences/information for objects, activities, phenomena, places visited in different ways and predicts patterns and activities/ phenomena	76
E501	Explains the super senses and unusual features (sight, smell, hear, sleep, sound, etc.) of animals and their responses to light, sound, food etc	75
E503	Describes the interdependence among animals, plants and humans	67
E504	Explains the role and functions of different institutions in daily life (Bank, Panchayat, Cooperatives, Police station, etc.)	80
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)	40
E506	Group objects, materials, activities for features/properties such as shape, taste, colour, texture, sound, traits etc.	41
E507	Traces the changes in practices, customs, techniques of past and present through coins, paintings, monuments, museums etc. and interacting with elders	74
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	56
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	61
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	78
E512	Voice opinions on issues observed/experienced and relates practices /happenings to larger issues of society	74
E513	Suggests ways for hygiene, health, managing waste, disaster/ emergency situations and protecting/saving resources	77
<b>Language</b>		
L504	Reads and comprehends independently storybooks, news items/ headlines, advertisements etc	66
L508	Reads text with comprehension, locates details and sequence of events	73

LO Code	Learning Outcome Class 5	Average Performance (in Percent)
<b>Mathematics</b>		
M401	Applies operations of numbers in daily life situations	66
M412	Explores the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit	60
M418	Calculates time intervals/duration of familiar daily life events by using forward or backward counting/addition and subtraction	79
M421	Represent the collected information in tables and bar graphs and draws inferences from these	76
M501	Reads and writes numbers bigger than 1000 being used in her/his surroundings	74
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	69
M505	Finds the number corresponding to part of a collection	59
M506	Identifies and forms equivalent fractions of a given fraction	48
M508	Converts fractions into decimals and vice versa	77
M509	Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing	70
M512	Relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa	74
M513	Estimates the volume of a solid body in known units	49
M514	Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals	64
M515	Identifies the pattern in triangular number and square number	63
M516	Collects data related to various daily life situations, represents it in a tabular form and as bar graphs and interprets it	68

LO Code	Learning Outcome Class 8t	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 the ideas and events while reading	62
<b>Mathematics</b>		
M601	Solves problems involving large numbers by applying appropriate operations	55
M606	Solves problems on daily life situations involving addition and subtraction of fractions / decimals	54
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	50
M621	Arranges given/collected information in the form of table, pictograph and bar graph and interprets them	52
M702	Interprets the division and multiplication of fractions	40
M705	Solves problems related to daily life situations involving rational numbers	50
M706	Uses exponential form of numbers to simplify problems involving multiplication and division of large numbers	47
M707	Adds/subtracts algebraic expressions	60
M710	Solves problems related to conversion of percentage to fraction and decimal and vice versa	38
M717	Finds out approximate area of closed shapes by using unit square grid/ graph sheet	36
M719	Finds various representative values for simple data from her/ his daily life contexts like mean, median and mode	67
M721	Interprets data using bar graph such as consumption of electricity is more in winters than summer	52
M801	Generalises properties of addition, subtraction, multiplication and division of rational numbers through patterns	35
M802	Finds rational numbers between two given rational numbers	52
M803	Proves divisibility rules of 2, 3, 4, 5, 6, 9 and 11	61
M804	Finds squares, cubes, square roots and cube roots of numbers using different methods	56
M808	Use various algebraic identities in solving problems of daily life	61
M812	Verifies properties of parallelogram and establishes the relationship between them through reasoning	36
M818	Finds surface area and volume of cuboidal and cylindrical object	35
M819	Draws and interprets bar charts and pie charts	50



LO Code	Learning Outcome Class 8t	Average Performance (in Percent)
<b>Science</b>		
SCI703	Classifies materials and organisms based on properties/ characteristics	55
SCI704	Conducts simple investigation to seek answers to queries	37
SCI705	Relates processes and phenomenon with causes	52
SCI708	Measures and calculates e.g., temperature; pulse rate; speed of moving objects; time period of a simple pendulum, etc	58
SCI710	Plots and interprets graphs	52
SCI711	Constructs models using materials from surroundings and explains their working	50
SCI801	Differentiates materials, organism and processes	60
SCI804	Relates processes and phenomenon with causes	52
SCI805	Explains processes and phenomenon	46
SCI807	Measures angles of incidence and reflection, etc	51
SCI811	Applies learning of scientific concepts in day-to-day life	45
SCI813	Makes efforts to protect environment	79
<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	62
SST610	Locates important historical sites, places on an outline map of India	32
SST625	Describes the functioning of rural and urban local government bodies in sectors like health and education	26
SST703	Explains preventive actions to be undertaken in the event of disasters	57
SST704	Describes formation of landforms due to various factors	62
SST722	Explains the significance of equality in democracy	54
SST726	Describes the process of election to the legislative assembly	63
SST731	Explains the functioning of media with appropriate examples from newspapers	65
SST733	Differentiates between different kinds of markets	66
SST734	Traces how goods travel through various market places	66
SST802	Describes major crops, types of farming and agricultural practices in her/his own area/state	40
SST805	Locates distribution of important minerals e.g. coal and mineral oil on the world map	56
SST807	Justifies judicious use of natural resources	53
SST809	Draws inter-relationship between types of farming and development in different regions of the world	39

LO Code	Learning Outcome Class 8t	Average Performance (in Percent)
SST810	Distinguishes the modern period from the medieval and the ancient periods through the use of sources	54
SST815	Explains the origin, nature and spread of the revolt of 1857 and the lessons learned from it	63
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	36
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	56
SST823	Applies the knowledge of the Fundamental Rights to find out about their violation, protection and promotion in a given situation	45
SST827	Describes the process of making a law. (e.g. Domestic Violence Act, RTI Act, RTE Act)	48
SST831	Identifies the role of Government in providing public facilities such as water, sanitation, road, electricity etc., and recognizes their availability	35
SST833	Draws bar diagram to show population of different countries/ India/states	70

## 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 Chandrashekhhar Hosur**, Director, School Education and Literacy (SE&L)

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

### NCERT

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

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

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

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**Dr. Sukhvinder**, Assistant Professor

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

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**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.

