विद्यया ऽ मृतमश्नुते
एन सी ई आर टी
NCERT

सत्यमेव जयते

सर्व शिक्षा अभियान
सब पढ़ें सब बढ़ें

NAS 2017
NATIONAL ACHIEVEMENT SURVEY
Class : 3, 5 and 8

ARUNACHAL 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.

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EDUCATIONAL SURVEY DIVISION
राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
National Council of Educational Research and Training
Sri Aurobindo Marg, New Delhi - 110016

unicef

HIGHLIGHTS

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

49%	48%	51%
Mathematics	EVS	Language

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

39%	43%	43%
Mathematics	EVS	Language

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

44%	33%
Language	Mathematics
34%	36%
Science	Social Science

68%
Children could understand what the teacher says in the classroom.

58%
of the school buildings need significant repair.

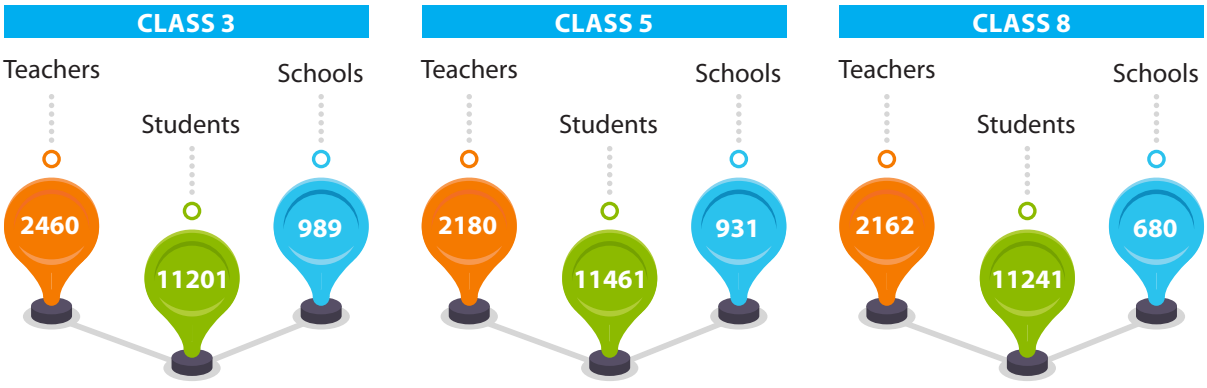
Highest Performing Learning Outcomes

- **L304:** Reads small texts with comprehension i.e., identifies main ideas, details, sequence and draws conclusions (52)
- **M302:** Compares numbers up to 999 based on their place values (57)
- **M317:** Reads the time correctly to the hour using a clock/watch (60)
- **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 (68)

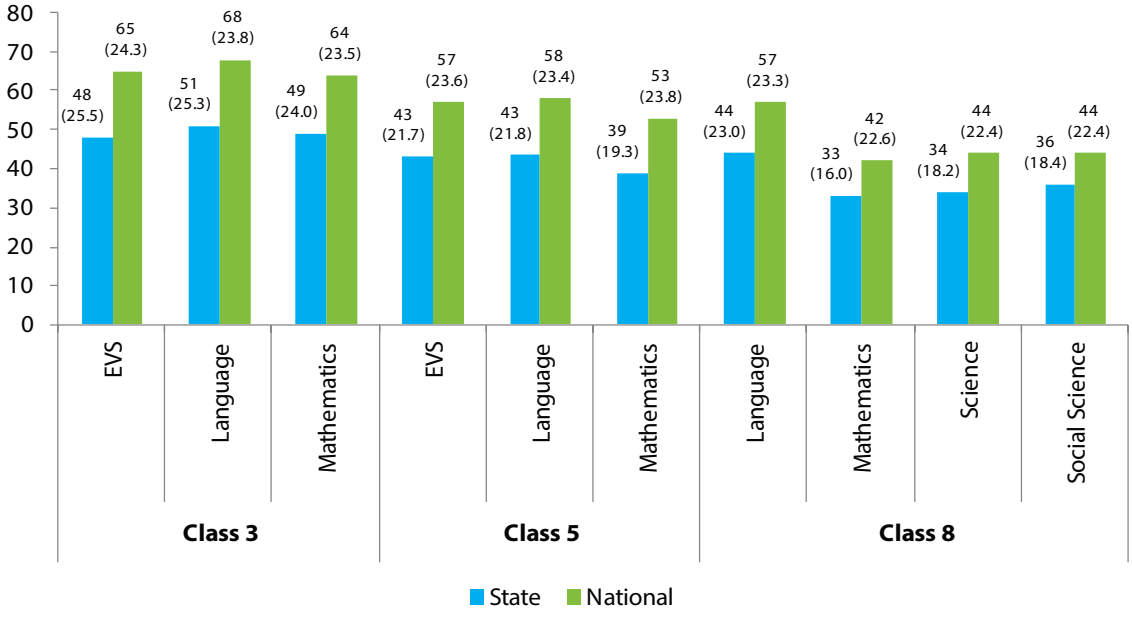
Lowest Performing Learning Outcomes

- **M710:** Solves problems related to conversion of percentage to fraction and decimal and vice versa (19)
- **SST704:** Describes formation of landforms due to various factors (19)
- **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 (20)
- **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) (22)
- **M312:** Estimates and measures length and distance using standard units like centimetres or metres & identifies relationships (23)

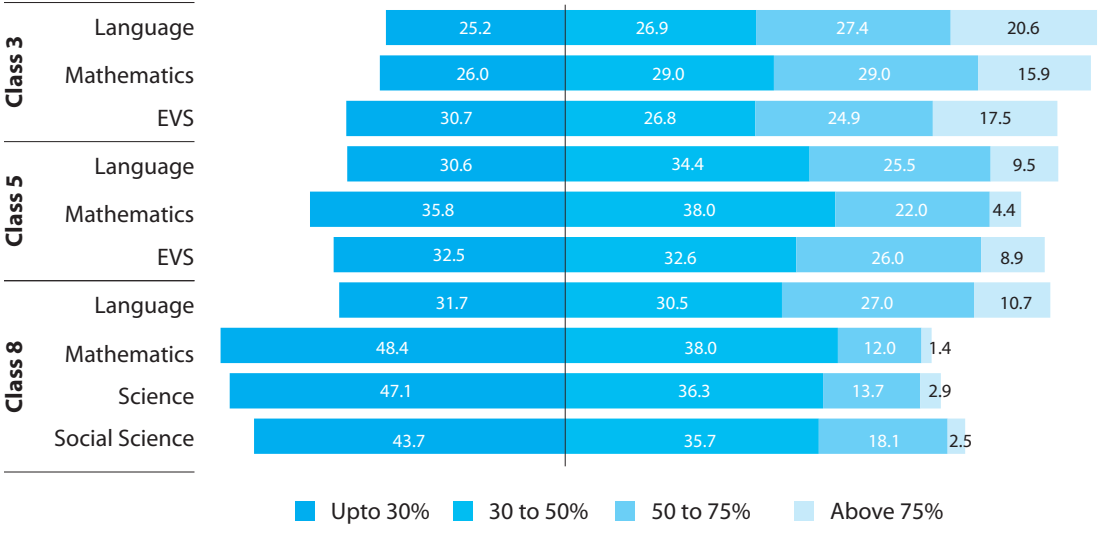
Participation



Average Achievement by Classes and Subjects



Distribution of Students Achievement by Classes and Subjects

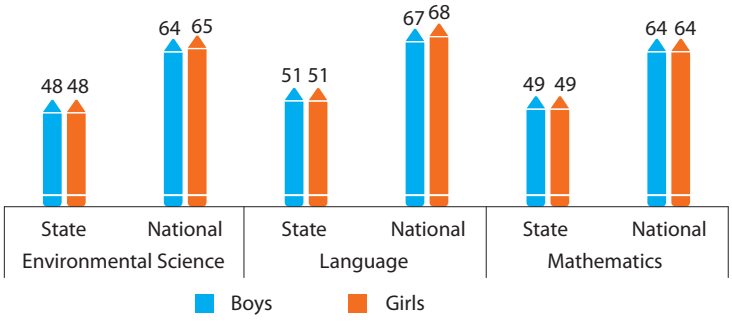


E.g. In Class 3 language, percentage of students achieving upto 30% is 25.2, between 30%-50% is 26.9, between 50%-75% is 27.4 and above 75% is 20.6.

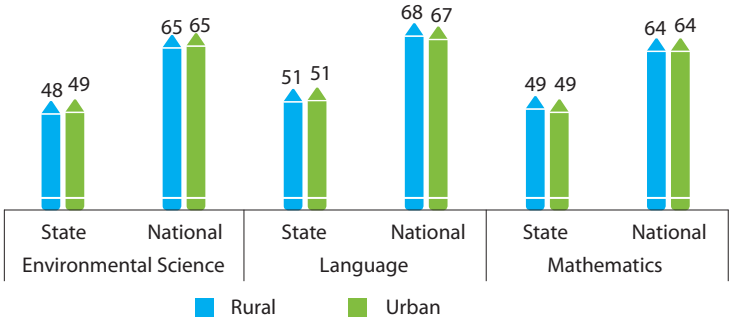
Class 3 State Results by Student Groups

PERFORMANCE

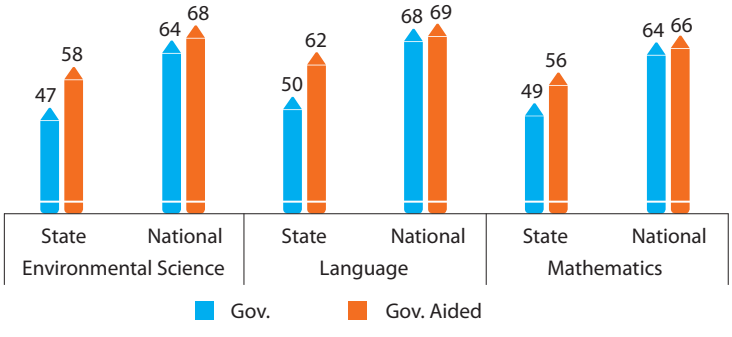
By Gender



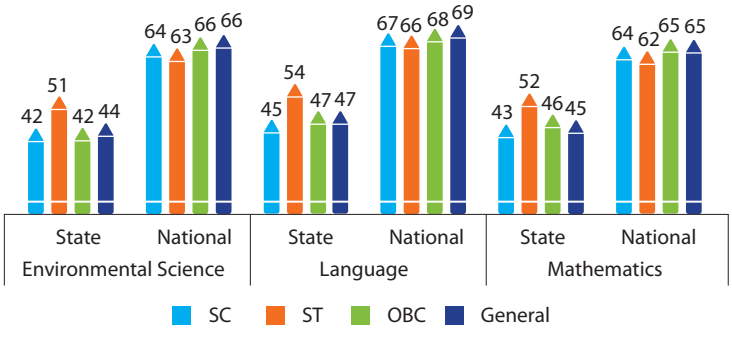
By School Location



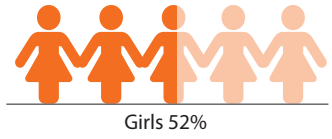
By School Management

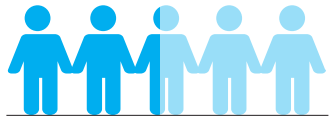


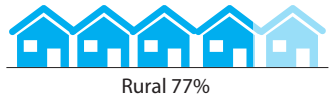
By Social Groups

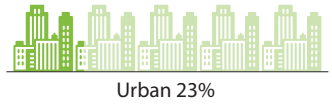


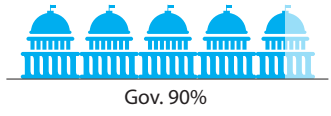
PARTICIPATION

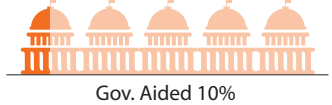


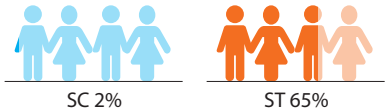


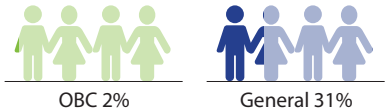








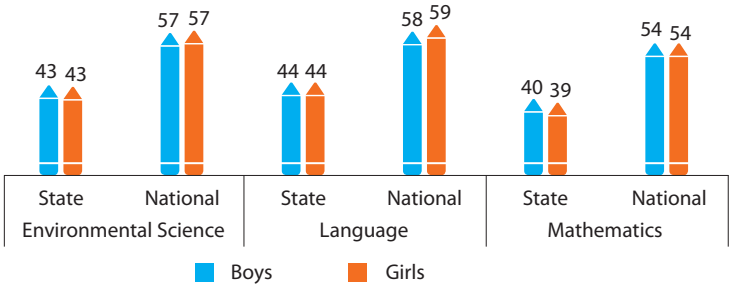




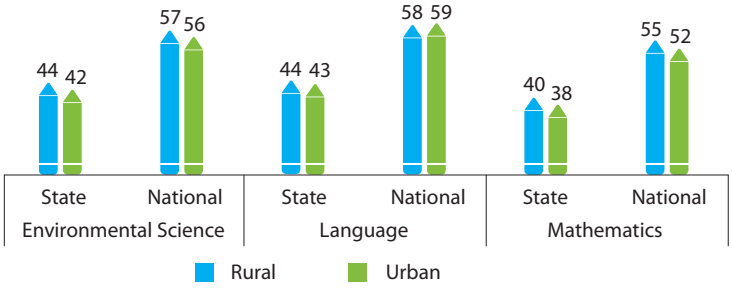
Class 5 State Results by Student Groups

PERFORMANCE

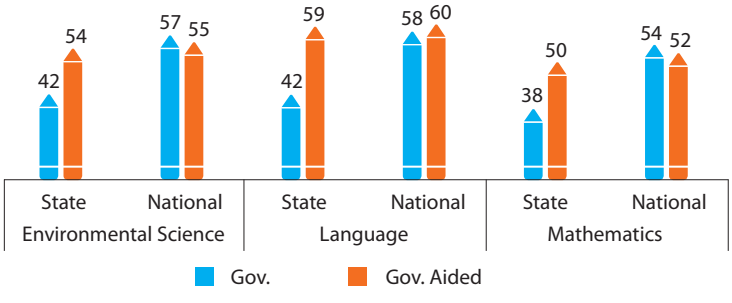
By Gender



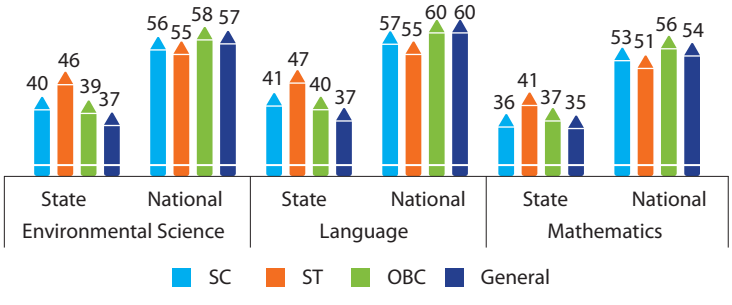
By School Location



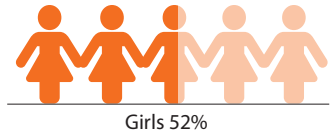
By School Management

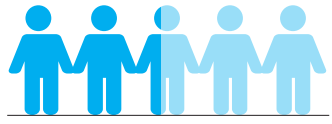


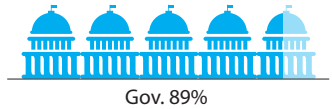
By Social Groups

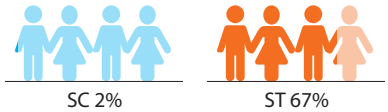


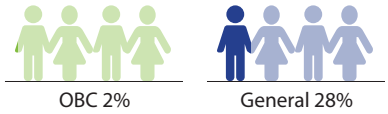
PARTICIPATION







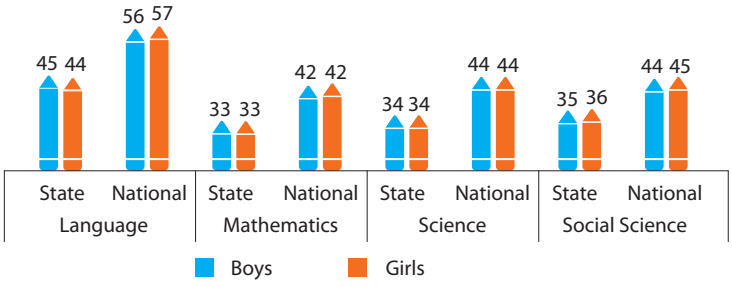




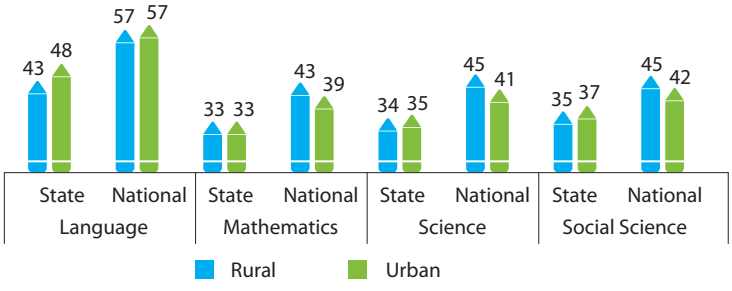
Class 8 State Results by Student Groups

PERFORMANCE

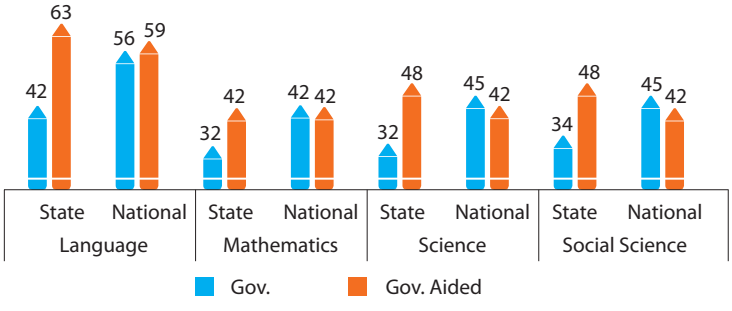
By Gender



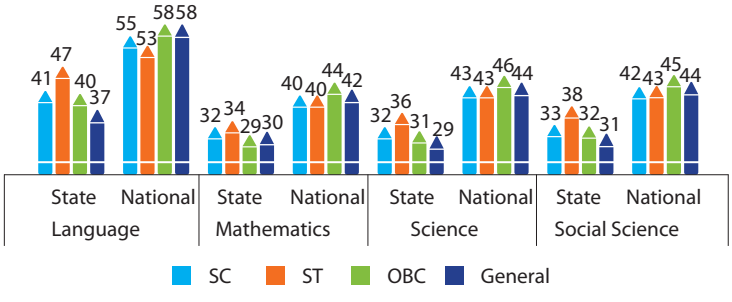
By School Location



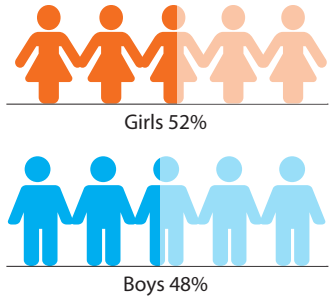
By School Management

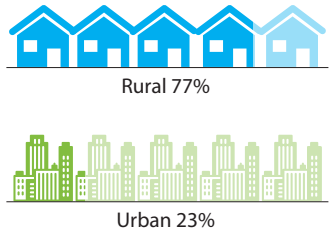


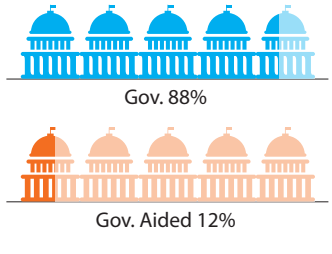
By Social Groups

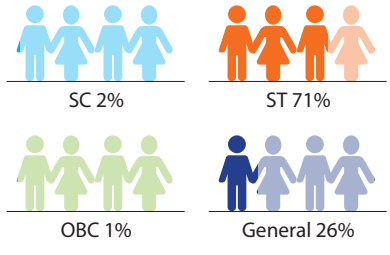


PARTICIPATION









What children say about schools?

96% children across the grades like to come to school.

30% students across the grades find it difficult to travel to school.

66% children in Class 3, **68%** in Class 5 and **64%** children in Class 8 could understand what the teachers say in the classroom.

For **30%** students in Class 3, **28%** in Class 5 and **25%** students in Class 8, the language used at home and by the teachers is the same.

77% students in Class 3, **76%** in Class 5 and **70%** in Class 8 go out and play during the games period.

What teachers responded?

46% teachers in Class 3,

49% in Class 5 and

63% in Class 8 are teaching the same subjects they have pursued during their higher studies.

33% teachers in the state fully understand the curricular goals.

44%
teachers responded that there is lack of adequate toilet facilities.

45%
teachers responded that there is lack of drinking water facilities.

58%
teachers responded that the school buildings needs significant repair.

46%
teachers responded that there is lack of electricity.

22%
Teachers in the state opined that they are overloaded with work.

27%
Teachers in the state are highly satisfied with their job.

59%
Teachers in the state have adequate instructional material and supplies.

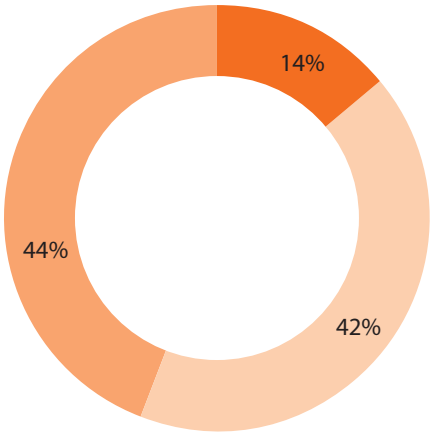
76%
Teachers in the state have adequate work space.

How do teachers assess children in the classroom?

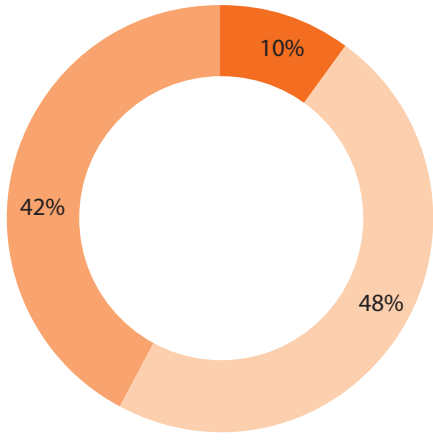
	Never (in %)	For some lessons (in %)	Almost every lesson (in %)
Oral Tests	4	45	51
Written Tests	2	38	59
Multiple choice type	7	57	36
Observation	3	33	64
Home assignments	2	38	59
Student self assessment	9	60	31
Project work	11	73	15
Peer assessment	12	69	19
Portfolio	26	57	16

What teachers say about parent's involvement?

Parental support for students' Achievement



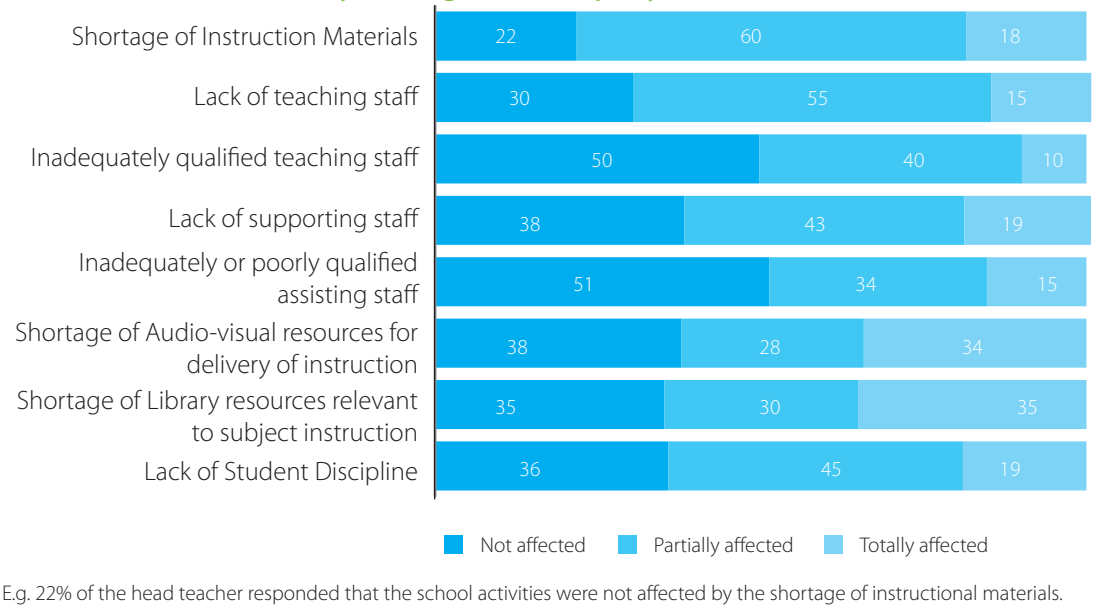
Parental involvement in school activities



Low Medium High

What the head teacher responded?

School activities affected by shortage or inadequacy



E.g. 22% 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
Siang	65
Kurung Kumey	61
Tirap	61
West Siang	60
Dibang Valley	57
Tawang	56
Kra Daadi	55
Lohit	55
Anjaw	54
Papum Pare	53
Lower Subansiri	52
Namsai	46
Upper Subansiri	46
East Kameng	46
Longding	46
West Kameng	45
Lower Dibang Valley	44
Upper Siang	39
East Siang	39
Changlang	32

Class 5

District Name	District Mean
Kurung Kumey	54
Tirap	52
West Siang	49
Kra Daadi	49
Tawang	48
Lohit	47
Siang	47
Lower Subansiri	46
Papum Pare	45
Anjaw	45
Dibang Valley	45
Longding	43
East Kameng	43
West Kameng	39
Upper Subansiri	38
Upper Siang	37
Namsai	36
East Siang	35
Lower Dibang Valley	32
Changlang	30

Class 8

District Name	District Mean
Tawang	43
Kurung Kumey	42
Kra Daadi	42
Longding	41
Lower Subansiri	41
Siang	41
Tirap	40
Papum Pare	40
East Kameng	39
Dibang Valley	39
West Siang	38
Upper Subansiri	37
Upper Siang	37
Anjaw	36
Lohit	34
East Siang	33
Lower Dibang Valley	33
West Kameng	32
Namsai	31
Changlang	31

Performance of the State in Learning Outcomes (LOs)

Annex-1

LO Code	Learning Outcome Class 3	Average Performance (in Percent)
EVS		
E302	Identifies simple features (e.g. movement, at places found/ kept, eating habits, sounds) of animals and birds in the immediate surroundings	39
E303	Identifies relationships with and among family members	42
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	49
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	50
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)	51
E309	Identifies directions, location of objects/places in simple maps using signs/symbols/verbally	44
E310	Guesses properties, estimates quantities of materials/ activities in daily life and verifies using symbols/non-standard units.	41
E311	Records observations, experiences, information on objects/ activities/places visited in different ways and predicts patterns etc	38
E313	Observes rules in games (local, indoor, outdoor)	29
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	49
Language		
L304	Reads small texts with comprehension i.e., identifies main ideas, details, sequence and draws conclusions	52
L312	Reads printed scripts on the classroom walls: poems, posters, charts etc	48
Mathematics		
M301	Reads and writes numbers upto 999 using place value	49
M302	Compares numbers up to 999 based on their place values	57

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	41
M304	Constructs and uses the multiplication facts (up till 10) in daily life situations	50
M305	Analyses and applies an appropriate number of operations in the situation/ context	42
M306	Explains the meaning of division facts by equal grouping/ sharing and finds it by repeated subtraction	37
M309	Identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc	68
M311	Fills a given region leaving no gaps using a tile of a given shape	35
M312	Estimates and measures length and distance using standard units like centimetres or metres & identifies relationships	23
M317	Reads the time correctly to the hour using a clock/watch	60
M318	Extends patterns in simple shapes and numbers	40
M319	Records data using tally marks, represents pictorially and draws conclusions	64

LO Code	Learning Outcome Class 5	Average Performance (in Percent)
EVS		
E403	Identifies relationships with and among family members in extended family	37
E410	Records observations/experiences/information for objects, activities, phenomena, places visited in different ways and predicts patterns and activities/ phenomena	45
E501	Explains the super senses and unusual features (sight, smell, hear, sleep, sound, etc.) of animals and their responses to light, sound, food etc	45
E503	Describes the interdependence among animals, plants and humans	42
E504	Explains the role and functions of different institutions in daily life (Bank, Panchayat, Cooperatives, Police station, etc.)	51
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)	22
E506	Group objects, materials, activities for features/properties such as shape, taste, colour, texture, sound, traits etc	32
E507	Traces the changes in practices, customs, techniques of past and present through coins, paintings, monuments, museums etc. and interacting with elders	45
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	37
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	41
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	52
E512	Voice opinions on issues observed/experienced and relates practices /happenings to larger issues of society	33
E513	Suggests ways for hygiene, health, managing waste, disaster/ emergency situations and protecting/saving resources	50
Language		
L504	Reads and comprehends independently storybooks, news items/ headlines, advertisements etc	42
L508	Reads text with comprehension, locates details and sequence of events	43

LO Code	Learning Outcome Class 5	Average Performance (in Percent)
	Mathematics	
M401	Applies operations of numbers in daily life situations	37
M412	Explores the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit	43
M418	Calculates time intervals/duration of familiar daily life events by using forward or backward counting/addition and subtraction	48
M421	Represent the collected information in tables and bar graphs and draws inferences from these	44
M501	Reads and writes numbers bigger than 1000 being used in her/his surroundings	39
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	37
M505	Finds the number corresponding to part of a collection	43
M506	Identifies and forms equivalent fractions of a given fraction	32
M508	Converts fractions into decimals and vice versa	43
M509	Classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing	40
M512	Relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa	43
M513	Estimates the volume of a solid body in known units	26
M514	Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals	31
M515	Identifies the pattern in triangular number and square number	33
M516	Collects data related to various daily life situations, represents it in a tabular form and as bar graphs and interprets it	51

LO Code	Learning Outcome Class 8	Average Performance (in Percent)
	Language	
L813	Read textual/non-textual materials with comprehension and identifies the details, characters, main idea and sequence of the ideas and events while reading	44
	Mathematics	
M601	Solves problems involving large numbers by applying appropriate operations	31
M606	Solves problems on daily life situations involving addition and subtraction of fractions / decimals	30
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	28
M621	Arranges given/collected information in the form of table, pictograph and bar graph and interprets them	27
M702	Interprets the division and multiplication of fractions	31
M705	Solves problems related to daily life situations involving rational numbers	32
M706	Uses exponential form of numbers to simplify problems involving multiplication and division of large numbers	25
M707	Adds/subtracts algebraic expressions	38
M710	Solves problems related to conversion of percentage to fraction and decimal and vice versa	19
M717	Finds out approximate area of closed shapes by using unit square grid/ graph sheet	27
M719	Finds various representative values for simple data from her/ his daily life contexts like mean, median and mode	40
M721	Interprets data using bar graph such as consumption of electricity is more in winters than summer	27
M801	Generalises properties of addition, subtraction, multiplication and division of rational numbers through patterns	27
M802	Finds rational numbers between two given rational numbers	29
M803	Proves divisibility rules of 2, 3, 4, 5, 6, 9 and 11	36
M804	Finds squares, cubes, square roots and cube roots of numbers using different methods	31
M808	Use various algebraic identities in solving problems of daily life	38
M812	Verifies properties of parallelogram and establishes the relationship between them through reasoning	25
M818	Finds surface area and volume of cuboidal and cylindrical object	32
M819	Draws and interprets bar charts and pie charts	43

LO Code	Learning Outcome Class 8	Average Performance (in Percent)
Science		
SCI703	Classifies materials and organisms based on properties/ characteristics	38
SCI704	Conducts simple investigation to seek answers to queries	32
SCI705	Relates processes and phenomenon with causes	34
SCI708	Measures and calculates e.g., temperature; pulse rate; speed of moving objects; time period of a simple pendulum, etc	28
SCI710	Plots and interprets graphs	23
SCI711	Constructs models using materials from surroundings and explains their working	25
SCI801	Differentiates materials, organism and processes	47
SCI804	Relates processes and phenomenon with causes	29
SCI805	Explains processes and phenomenon	30
SCI807	Measures angles of incidence and reflection, etc	34
SCI811	Applies learning of scientific concepts in day-to-day life	29
SCI813	Makes efforts to protect environment	31
Social Science		
SST605	Identifies latitudes and longitudes, e.g., poles, equator, tropics, States/UTs of India and other neighbouring countries on globe and the world map	39
SST610	locates important historical sites, places on an outline map of India	26
SST625	Describes the functioning of rural and urban local government bodies in sectors like health and education	32
SST703	Explains preventive actions to be undertaken in the event of disasters	49
SST704	Describes formation of landforms due to various factors	19
SST722	Explains the significance of equality in democracy	30
SST726	Describes the process of election to the legislative assembly	44
SST731	Explains the functioning of media with appropriate examples from newspapers	41
SST733	Differentiates between different kinds of markets	41
SST734	Traces how goods travel through various market places	35
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	32
SST807	Justifies judicious use of natural resources	52
SST809	Draws inter-relationship between types of farming and development in different regions of the world	32

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	41
SST815	Explains the origin, nature and spread of the revolt of 1857 and the lessons learned from it	35
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	20
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	27
SST823	Applies the knowledge of the Fundamental Rights to find out about their violation, protection and promotion in a given situation	28
SST827	Describes the process of making a law. (e.g. Domestic Violence Act, RTI Act, RTE Act)	38
SST831	Identifies the role of Government in providing public facilities such as water, sanitation, road, electricity etc., and recognizes their availability	27
SST833	Draws bar diagram to show population of different countries/ India/states	48

Core Team

MHRD

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

Shri Anil Swarup, Former Secretary, School Education & Literacy, SE&L, (till 30th 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)

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Dr. Pratima Kumari, Associate Professor

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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.