NATIONAL ACHIEVEMENT SURVEY – CLASS X
CYCLE 2 (2017-18)

STATE REPORT CARD

DADAR AND NAGAR HAVELI

PARTICIPATION

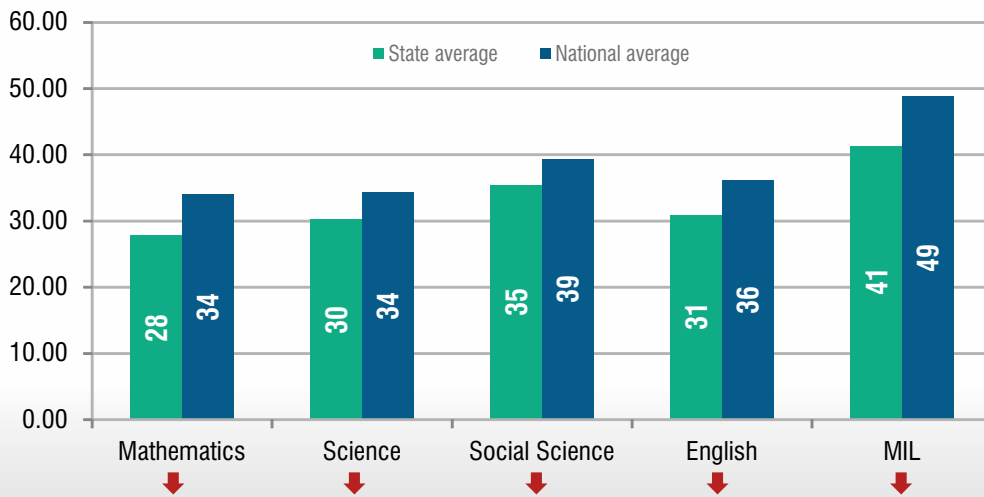| 33	1319	100%
Participating School	Participating Students	School Response Rate

This State Report Card (SRC) of National Achievement Survey (NAS) Class X (Cycle 2) provides an overview of students' academic performance in the state. The NAS surveyed a representative sample of all school types in each state and measured students' performance in five subjects – Mathematics, Science, Social Science, English and Modern Indian Languages (MIL) — Reading Comprehension.

Performance of students in your state: Average Percent Correct

Bar chart of Average Percent Correct (State average vs National average):
- Mathematics: State 28, National 34 (↓)
- Science: State 30, National 34 (↓)
- Social Science: State 35, National 39 (↓)
- English: State 31, National 36 (↓)
- MIL: State 41, National 49 (↓)

KEY

↑ State average score is significantly ABOVE National average score

↔ No significant difference between State and National average scores

↓ State average score is significantly BELOW National average score

Distribution of students by range (percent correct)

SUBJECTS		0 – 35 (%)	36 – 50 (%)	51 – 75 (%)	76 – 100 (%)
Mathematics	State	86	12	2	
	National	67	20	11	2
Science	State	80	19	1	
	National	62	27	10	1
Social Science	State	56	38	6	
	National	44	38	17	1
English	State	77	16	7	
	National	61	21	15	3
Modern Indian Language (MIL)	State	35	43	21	1
	National	27	27	39	7

Educational Survey Division
राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING
Sri Aurobindo Marg, New Delhi 110 016

VISIT US AT : http://www.ncert.nic.in/programmes/NAS/NAS.html

Performance by: LOCATION

Subjects	Rural (% Correct)	Urban (% Correct)	Significant Difference
Mathematics	27	30	↔
Science	30	31	↔
Social Science	35	38	↔
English	29	39	↓
MIL	41	43	↔

Performance by: GENDER

Subjects	Girls (% Correct)	Boys (% Correct)	Significant Difference
Mathematics	28	28	↔
Science	30	31	↔
Social Science	35	36	↔
English	30	32	↔
MIL	43	40	↔

Performance by: SOCIAL GROUP

Subjects	SC (% Correct)	Others (% Correct)	Significant Difference	ST (% Correct)	Others (% Correct)	Significant Difference	OBC (% Correct)	Others (% Correct)	Significant Difference
Mathematics	32	30	↔	27	30	↔	33	30	↔
Science	30	31	↔	30	31	↔	27	31	↔
Social Science	31	37	↔	35	37	↔	39	37	↔
English	35	39	↔	29	39	↓	47	39	↔
MIL	43	40	↔	42	40	↔	36	40	↔

Student participation: **PERCENT**

State sample		
Group	**Number of students**	**%**
Girls	670	51
Boys	649	49

State sample		
Group	**Number of students**	**%**
Rural	1031	78
Urban	288	22

Group	**Number of students**	**%**
SC	32	2
ST	1009	77
OBC	38	3
Others	240	18

MAXIMUM INTERVENTION REQUIRED (% of Students score below 35%)

Subject	Value
Mathematics	86
Science	80
Social Science	56
English	77
MIL	35
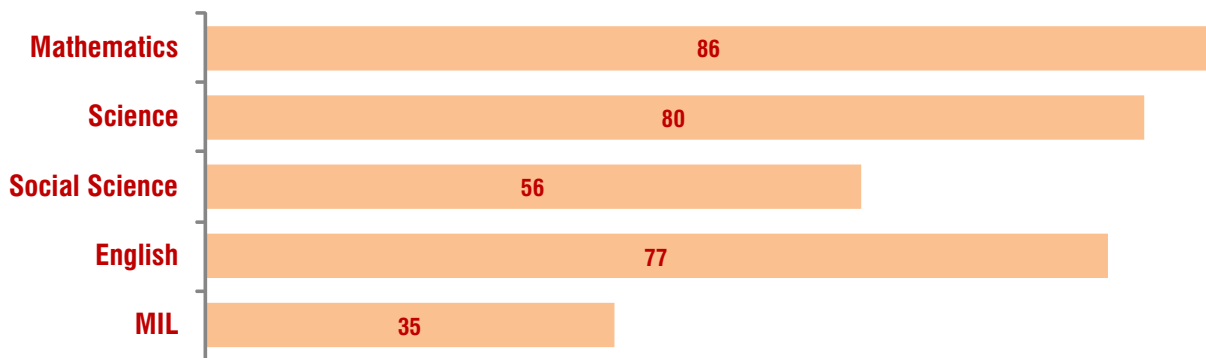
Skill-wise performance: (ITEM % CORRECT)

Subjects	Skill 1 (% correct)	Skill 2 (% correct)	Skill 3 (% correct)
Mathematics	28	28	26
Science	33	28	32
Social Science	37	36	33
English	39	29	30
MIL	44	52	39

Skill 1	**Remembering:** Recognizing or recalling knowledge from memory.
Skill 2	**Understanding:** Constructing meaning from different types of functions be they written or graphic messages.
Skill 3	**Applying:** Carrying out or using a procedure through executing, or implementing.

Performance of Students: CONTENT WISE

Subjects	Content domain	State average (percent correct)	National average (percent correct)	Significant difference
MATHEMATICS	**Mathematics (overall)**	**28**	**34**	⬇
	Algebra	28	35	⬇
	Geometry	29	35	⬇
	Mensuration	30	34	⬇
	Trigonometry	26	37	⬇
	Coordinate geometry	25	29	⬇
	Number system	22	30	⬇
	Statistics	26	33	⬇
	Probability	28	35	⬇
SCIENCE	**Science (overall)**	**30**	**34**	⬇
	Food	35	35	⬌
	Materials	29	33	⬇
	The living world	33	38	⬇
	Moving things, people and ideas	33	35	⬌
	How things work	22	22	⬌
	Natural phenomena	21	27	⬇
	Natural resources	38	40	⬌
SOCIAL SCIENCE	**Social science (overall)**	**35**	**39**	⬇
	History	34	38	⬇
	Geography	36	39	⬇
	Economics	35	40	⬇
	Political science	37	41	⬇
ENGLISH	**English (overall)**	**31**	**36**	⬇
	Reading comprehension	32	37	⬇
	Language element	29	35	⬇
MODERN INDIAN LANGUAGE (MIL)	**Modern Indian Language (overall)**	**41**	**49**	⬇
	Reading comprehension	45	52	⬇

More difficult

If $ax^2+bx+c=0$ has equal roots, then c is equal to

1. $\dfrac{-b}{2a}$

2. $\dfrac{b}{2a}$

3. $\dfrac{-b^2}{4a}$

4. $\dfrac{b^2}{4a}$

Skill: Skill 3 item
Content Domain: Algebra

% Answers:
1. 30.0%
2. 25.1%
3. 19.5%
4. **19.8%**

20% of students answered this item correctly

If the nth term of an A.P. is (3n + 1), then its 30th term is

1. 31

2. 91

3. 90

4. 94

Skill: Skill 2 item
Content Domain: Algebra

% Answers:
1. 25.8%
2. **32.0%**
3. 27.8%
4. 8.9%

32% of students answered this item correctly

AOB is a sector of a circle of radius 4 cm subtending an angle of 45° at the centre 'O' of the circle. Area of the sector, in cm², is

1. π

2. 2π

3. 3π

4. 4π

Skill: Skill 1 item
Content Domain: Mensuration

% Answers:
1. 17.4%
2. **49.6%**
3. 11.2%
4. 17.5%

50% of students answered this item correctly

If $\Delta ABC \cong \Delta PQR$, then which of the following is true?

1. $B \leftrightarrow R$

2. $C \leftrightarrow Q$

3. $A \leftrightarrow R$

4. $A \leftrightarrow P$

Skill: Skill 1 item
Content Domain: Geometry

% Answers:
1. 11.1%
2. 13.2%
3. 15.8%
4. **56.5%**

57% of students answered this item correctly

If $\tan \theta = \dfrac{3}{4}$, then $\cot \theta$ is equal to

1. $\dfrac{4}{3}$

2. $\dfrac{3}{7}$

3. $\dfrac{4}{7}$

4. $\dfrac{7}{4}$

Skill: Skill 1 item
Content Domain: Trigonometry

% Answers:
1. **71.1%**
2. 11.4%
3. 9.2%
4. 5.5%

71% of students answered this item correctly

Less difficult

KEY

NAS items

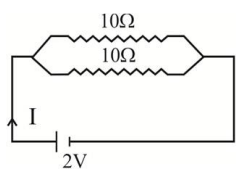This ladder shows the percentage of students answering selected NAS items correctly.

It provides a snapshot of what students know and can do in Mathematics.

More difficult

18% of students answered this item correctly

The current I in the circuit shown in the figure is

10Ω
10Ω

I

2V

Skill: Skill 3 item
Content Domain: Physics

1. 0.1A
2. 0.2A
3. 0.3A
4. 0.4A

% Answers:
1. 20.2%
2. 38.0%
3. 17.9%
4. **18.2%**

The image of an object formed by your eye lens on the retina is

1. erect and real
2. inverted and real
3. erect and virtual
4. inverted and virtual.

Skill: Skill 2 item
Content Domain: Physics

% Answers:
1. 33.1%
2. **31.7%**
3. 21.7%
4. 10.9%

32% of students answered this item correctly

53% of students answered this item correctly

Packets of potato chips are filled with nitrogen gas in order to avoid

1. Rusting
2. Rancidity
3. Reduction
4. Decomposition

Skill: Skill 2 item
Content Domain: Chemistry

% Answers:
1. 11.3%
2. **53.4%**
3. 19.0%
4. 14.1%

The unit of work is

1. joule
2. newton
3. newton / meter
4. watt

Skill: Skill 1 item
Content Domain: Physics

% Answers:
1. **61.5%**
2. 12.0%
3. 11.5%
4. 12.4%

62% of students answered this item correctly

71% of students answered this item correctly

The fluid secreted in our mouth that mixes with food making it slippery and easy to swallow is

1. gastric juice
2. hormones
3. saliva
4. bile

Skill: Skill 1 item
Content Domain: Biology

% Answers:
1. 11.1%
2. 10.0%
3. **71.0%**
4. 5.6%

Less difficult

KEY

NAS item

This ladder shows the percentage of students answering selected NAS items correctly.

It provides a snapshot of what students know and can do in Science.

More difficult

20%
of students answered this item correctly

The legislative powers for the Union List in India does not include

1. Foreign a airs
2. Banking
3. Defence
4. Police

Skill: Skill 1 item
Content Domain: Political Science

% Answers:
1. 43.6%
2. 19.5%
3. 14.6%
4. **19.9%**

Observe the table regarding hypothetical data of educational achievement of rural population of a state is given below. Choose one option and fill in the blanks.

Educational Achievement of Rural Population of a State		
Category	Male (%)	Female (%)
Literacy rate for rural population	54	21
Literacy rate for children in age group 10-14 years	69	41
Percentage of rural children aged 10-14 attending school	64	34

_____ of rural girls are not attending school

1. 66%
2. 64%
3. 54%
4. 34%

Skill: Skill 2 item
Content Domain: Economics

% Answers:
1. **30.1%**
2. 15.4%
3. 14.6%
4. 35.5%

30%
of students answered this item correctly

47%
of students answered this item correctly

Which of the following is **NOT** money?

1. Currency Notes
2. Deposits
3. Coins
4. Credit Card

Skill: Skill 2 item
Content Domain: Economics

% Answers:
1. 11.2%
2. 29.9%
3. 8.8%
4. **47.4%**

Which of the following statement is incorrect?

1. People make deposits in banks
2. People take loans from banks
3. People receive interest from banks
4. People repay loans without interest

Skill: Skill 1 item
Content Domain: Economics

% Answers:
1. 10.7%
2. 9.1%
3. 17.2%
4. **60.5%**

61%
of students answered this item correctly

India is an example of which of the following system?

1. Monarchy
2. Autocracy
3. Democracy
4. Anarchy

Skill: Skill 1 item
Content Domain: Political Science

% Answers:
1. 8.4%
2. 5.8%
3. **79.6%**
4. 4.3%

80%
of students answered this item correctly

Less difficult

KEY

NAS items

This ladder shows the percentage of students answering selected NAS items correctly.

It provides a snapshot of what students know and can do in Social Science.

Read the chart given below and answer the following questions.

A school decided to celebrate Book Week. The chart below shows the schedule of activities planned.Study the chart carefully and answer the questions that follow.

DAY	CLASS / ACTIVITY IN SCHOOL	VENUE	CLASS / OUTDOOR ACTIVITIES
MONDAY	Class 1 - 2 : Designing bookmarks	Classrooms	Class 8 Visit to National Library
	Class 3 - 4 : Role play	Hall -1	
	Class 5 - 6 : My favourite book--talk	Library	
TUESDAY	Class 3 - 4 : Chain story telling	Auditorium	Class 5 – 6 Film : The Jungle Book
	Class 7 - 8 : Theatre workshop by Barry John	Hall -1	
WEDNESDAY	Class 1 - 2 : Meet the fairy tale characters	Auditorium	
	Class 3 - 4 : Show and tell	Hall -1	
	Class 5 - 6 : Poetry recitation	Hall -2	
	Class 7 - 8 : Designing a bookcover— by Santosh Rai	Art room	
THURSDAY	Class 7 - 8 : Quiz: conducted by Mandeep Kaur	Hall -2	Class 3 - 4 Visit to National Book Trust
	Class 9 -10 : Meet the author-- Ruskin Bond	Library	
FRIDAY	Class 5 - 6 : Book reading by students	Classrooms	

More difficult

30%
of students answered this item correctly

The school has invited _____ experts for different events.

1. Two
2. Six
3. Four
4. Five

Skill: Skill 2 item
Content Domain:
Reading Comprehension

% Answers:
1. 19.9%
2. 24.5%
3. **29.7%**
4. 21.5%

Which classes will go to see 'The Jungle Book' and when?

1. Class 7 and 8, Tuesday
2. Class 3 and 4, Wednesday
3. Class 9 and 10, Thursday
4. Class 5 and 6, Tuesday

Skill: Skill 1 item
Content Domain:
Reading Comprehension

% Answers:
1. 12.4%
2. 16.9%
3. 16.6%
4. **51.0%**

51%
of students answered this item correctly

On which day can the children meet Ruskin Bond?

1. Monday
2. Wednesday
3. Thursday
4. Friday

Skill: Skill 1 item
Content Domain:
Reading Comprehension

% Answers:
1. 13.3%
2. 10.8%
3. **62.4%**
4. 10.9%

62%
of students answered this item correctly

Less difficult

KEY

NAS items

This ladder shows the percentage of students answering selected NAS items correctly.

It provides a snapshot of what students know and can do in English.

SELECTED SCHOOL CHARACTERISTICS

82% of schools have a science laboratory.

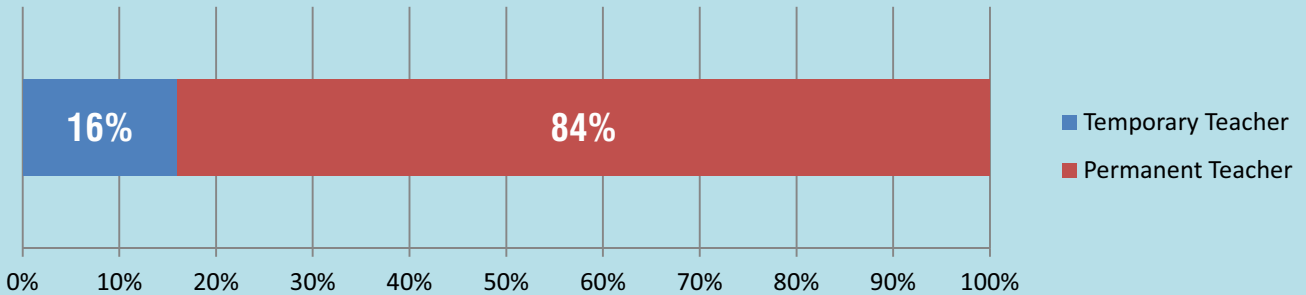**21%** of schools have a mathematics laboratory.

79% of schools have a library.

SELECTED TEACHER CHARACTERISTICS

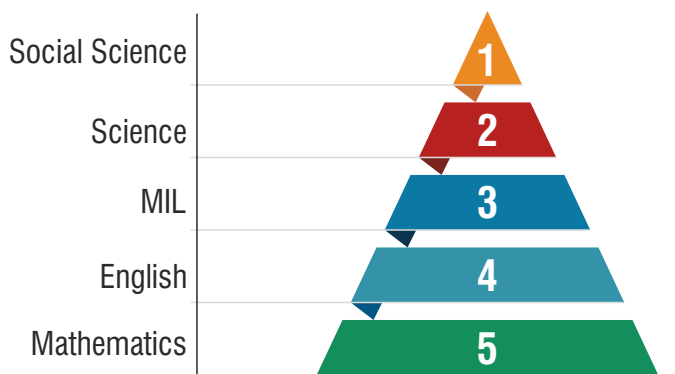**33%** of teachers sometimes make use of projects for assessing Class X students.

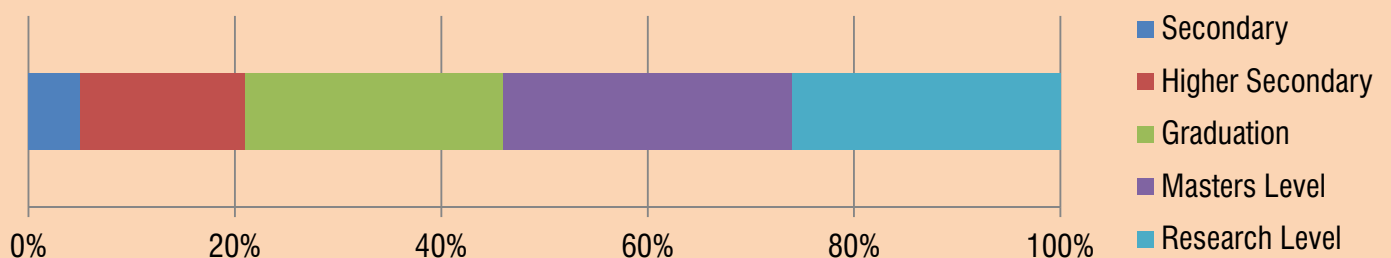**79%** of teachers always make use of written tests or examinations.

Employment Status

16% Temporary Teacher
84% Permanent Teacher

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

- Temporary Teacher
- Permanent Teacher

SELECTED STUDENT CHARACTERISTICS IN YOUR STATE

Student preference for subjects:

Subject	Rank
Social Science	1
Science	2
MIL	3
English	4
Mathematics	5

29% of students travel more than 5km to school.

How far students wish to study

0% 20% 40% 60% 80% 100%

- Secondary
- Higher Secondary
- Graduation
- Masters Level
- Research Level

CORE TEAM

MHRD

- **Ms. Rina Ray**, IAS, Secretary School, Education and Literacy (SE&L)
- **Shri. Maneesh Garg**, Joint Secretary, School Education and Literacy (SE&L)
- **Ms. Nigar Fatima Husain**, Director (RMSA-I)
- **Ms. Nazli Jafari Shayin**, Director (RMSA-II)
- **Dr. Letha Ram Mohan**, Chief Consultant, Quality and Innovation, (TSG)
- **Mr. Muktar Alam**, Sr. Consultant, Quality and Innovation, (TSG)

NCERT

- **Prof. Hrushikesh Senapaty**, *Director,* NCERT
- **Dr. Indrani Bhaduri**, *Professor & Head*
- **Dr. Sridhar Srivastava**, *Professor*
- **Dr. Veer Pal Singh**, *Professor*
- **Dr. A.D. Tewari**, *Professor*
- **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*
- **Shri Md. Arif Sadiq**, *Programmer*
- **Shri Vishwa Bandhu**, *Programmer*

EXTERNAL

- **World Bank,** India

STATE FUNCTIONARIES

- School Boards, CBSE, ICSE, State Directorate of Education, SCERTs, SIEs, Schools

विद्यया ऽ मृतमश्नुते

एन सी ई आर टी
NCERT

NAS for Transforming School Education