

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

STATE REPORT CARD

PUDUCHERRY

PARTICIPATION

163

Participating
School

5004

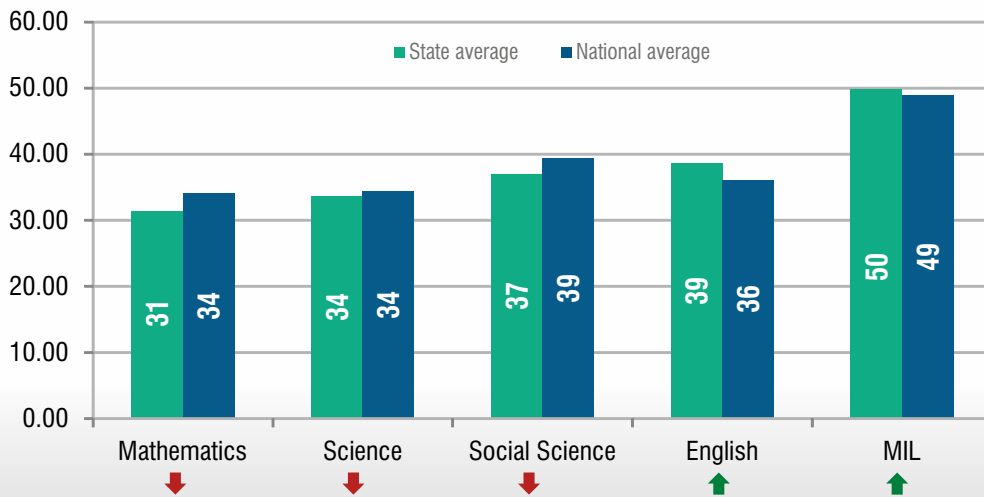
Participating
Students

100%

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



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 | 75 | 19 | 5 | 1 |
| | National | 67 | 20 | 11 | 2 |
| Science | State | 64 | 29 | 6 | 1 |
| | National | 62 | 27 | 10 | 1 |
| Social Science | State | 51 | 37 | 11 | 1 |
| | National | 44 | 38 | 17 | 1 |
| English | State | 53 | 26 | 19 | 2 |
| | National | 61 | 21 | 15 | 3 |
| Modern Indian Language (MIL) | State | 24 | 29 | 39 | 8 |
| | National | 27 | 27 | 39 | 7 |

Performance by: LOCATION

| Subjects | Rural (% Correct) | Urban (% Correct) | Significant Difference |
|----------------|----------------------|----------------------|---------------------------|
| Mathematics | 30 | 32 | ↓ |
| Science | 33 | 34 | ↔ |
| Social Science | 37 | 37 | ↔ |
| English | 35 | 41 | ↓ |
| MIL | 44 | 47 | ↓ |

Performance by: GENDER

| Subjects | Girls (% Correct) | Boys (% Correct) | Significant Difference |
|----------------|----------------------|---------------------|---------------------------|
| Mathematics | 32 | 31 | ↔ |
| Science | 34 | 33 | ↔ |
| Social Science | 38 | 36 | ↑ |
| English | 40 | 37 | ↑ |
| MIL | 48 | 43 | ↑ |

Performance by: SOCIAL GROUP

| Subjects | SC | | | ST | | | OBC | | |
|----------------|-------------|-----------------------|---------------------------|-------------|-----------------------|---------------------------|-------------|-----------------------|---------------------------|
| | (% Correct) | Others (% Correct) | Significant Difference | (% Correct) | Others (% Correct) | Significant Difference | (% Correct) | Others (% Correct) | Significant Difference |
| Mathematics | 28 | 38 | ↓ | 30 | 38 | ↓ | 32 | 38 | ↓ |
| Science | 31 | 36 | ↔ | 29 | 36 | ↔ | 34 | 36 | ↔ |
| Social Science | 35 | 38 | ↓ | 40 | 38 | ↓ | 37 | 38 | ↔ |
| English | 32 | 47 | ↓ | - | 47 | | 40 | 47 | ↓ |
| MIL | 42 | 50 | ↓ | 25 | 50 | ↓ | 46 | 50 | ↔ |

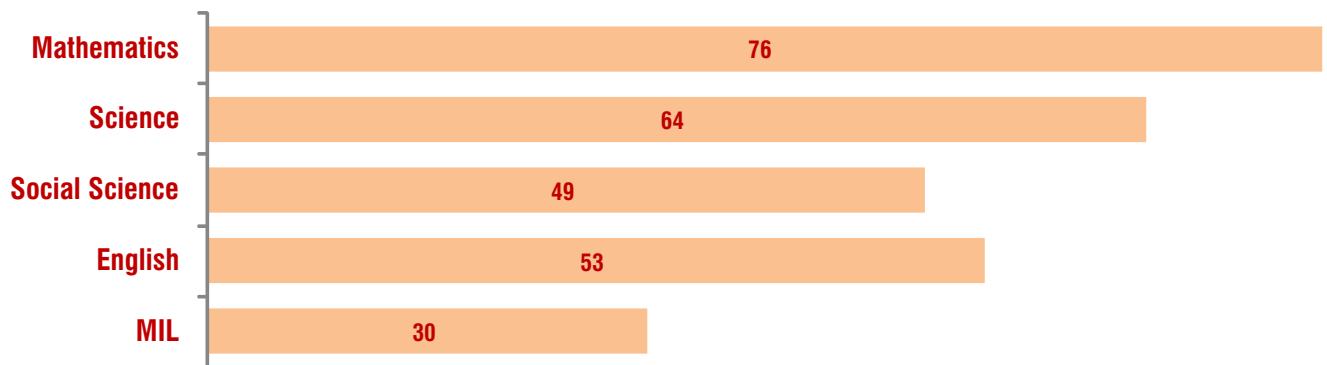
Student participation: PERCENT

| State sample | | |
|--------------|--------------------|----|
| Group | Number of students | % |
| Girls | 2591 | 52 |
| Boys | 2413 | 48 |

| State sample | | |
|--------------|--------------------|----|
| Group | Number of students | % |
| Rural | 1975 | 39 |
| Urban | 3029 | 61 |

| Group | Number of students | % |
|--------|--------------------|----|
| SC | 991 | 20 |
| ST | 5 | 0 |
| OBC | 3596 | 72 |
| Others | 412 | 8 |

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



Skill-wise performance: (ITEM % CORRECT)

| Subjects | Skill 1 (% correct) | Skill 2 (% correct) | Skill 3 (% correct) |
|----------------|---------------------|---------------------|---------------------|
| Mathematics | 32 | 31 | 31 |
| Science | 37 | 32 | 34 |
| Social Science | 39 | 37 | 36 |
| English | 49 | 38 | 36 |
| MIL | 51 | 40 | 46 |

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) | 31 | 34 | ↓ |
| | Algebra | 32 | 35 | ↓ |
| | Geometry | 32 | 35 | ↓ |
| | Mensuration | 32 | 34 | ↓ |
| | Trigonometry | 32 | 37 | ↓ |
| | Coordinate geometry | 32 | 29 | ↑ |
| | Number system | 24 | 30 | ↓ |
| | Statistics | 30 | 33 | ↓ |
| | Probability | 36 | 35 | ↔ |
| SCIENCE | Science (overall) | 34 | 34 | ↓ |
| | Food | 38 | 35 | ↑ |
| | Materials | 33 | 33 | ↔ |
| | The living world | 36 | 38 | ↓ |
| | Moving things, people and ideas | 35 | 35 | ↔ |
| | How things work | 31 | 22 | ↔ |
| | Natural phenomena | 25 | 27 | ↓ |
| | Natural resources | 41 | 40 | ↔ |
| SOCIAL SCIENCE | Social science (overall) | 37 | 39 | ↓ |
| | History | 34 | 38 | ↓ |
| | Geography | 37 | 39 | ↓ |
| | Economics | 40 | 40 | ↓ |
| | Political science | 37 | 41 | ↓ |
| ENGLISH | English (overall) | 39 | 36 | ↑ |
| | Reading comprehension | 41 | 37 | ↑ |
| | Language element | 36 | 35 | ↑ |
| MODERN INDIAN LANGUAGE (MIL) | Modern Indian Language (overall) | 50 | 49 | ↑ |
| | Reading comprehension | 50 | 52 | ↓ |

What students know and can do: **MATHEMATICS** (Performance of the students at the **National level**)

More difficult

20%

of students answered this item correctly

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

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

Skill: Skill 3 item
Content Domain: Algebra

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

If the n^{th} term of an A.P. is $(3n + 1)$, then its 30^{th} 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 cm^2 , 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 $\tan \theta = \frac{3}{4}$, then $\cot \theta$ is equal to

1. $\frac{4}{3}$
2. $\frac{3}{7}$
3. $\frac{4}{7}$
4. $\frac{7}{4}$

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

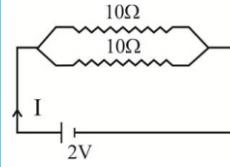
This ladder shows the percentage of students answering selected NAS items correctly. It provides a snapshot of what students know and can do in Mathematics.

What students know and can do: **SCIENCE** (Performance of the students at the **National level**)

More difficult

18%
of students answered
this item correctly

The current I in the circuit shown in the figure is



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

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%

53%
of students answered
this item correctly

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

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%

71%
of students answered
this item correctly

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.

What students know and can do: SOCIAL SCIENCE (Performance of the students at the National level)

More difficult

20%
of students answered
this item correctly

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

1. Foreign affairs
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 |

Skill: Skill 2 item
Content Domain: Economics

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

- _____ of rural girls are not attending school
1. 66%
 2. 64%
 3. 54%
 4. 34%

30%
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%**

47%
of students answered
this item correctly

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

What students know and can do: **ENGLISH** (Performance of the students at the **National level**)

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

SELECTED SCHOOL CHARACTERISTICS



95% of schools have a science laboratory.



37% of schools have a mathematics laboratory.



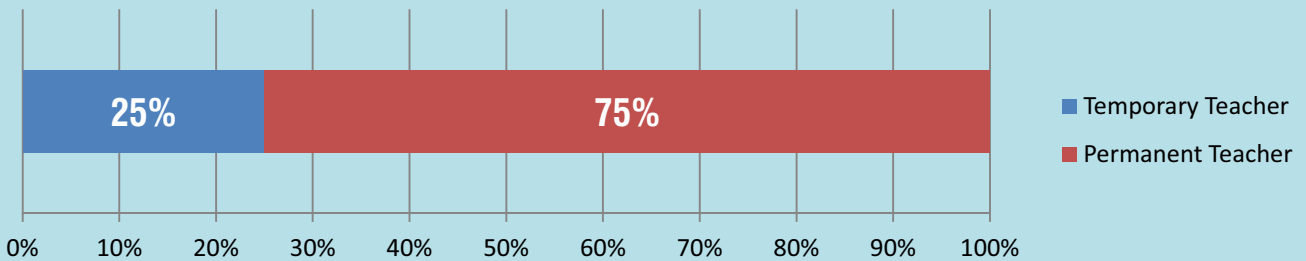
94% of schools have a library.

SELECTED TEACHER CHARACTERISTICS

35% of teachers sometimes make use of projects for assessing Class X students.

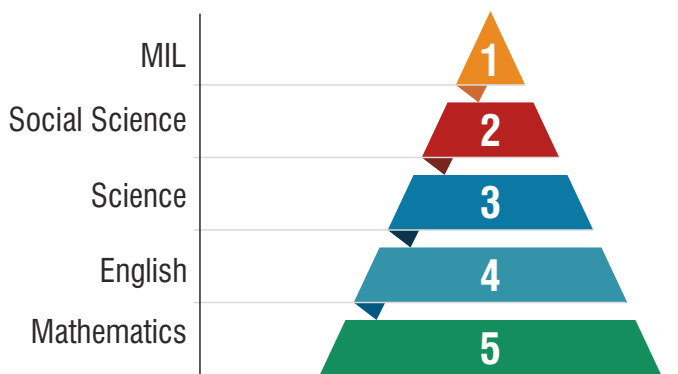
88% of teachers always make use of written tests or examinations.

Employment Status



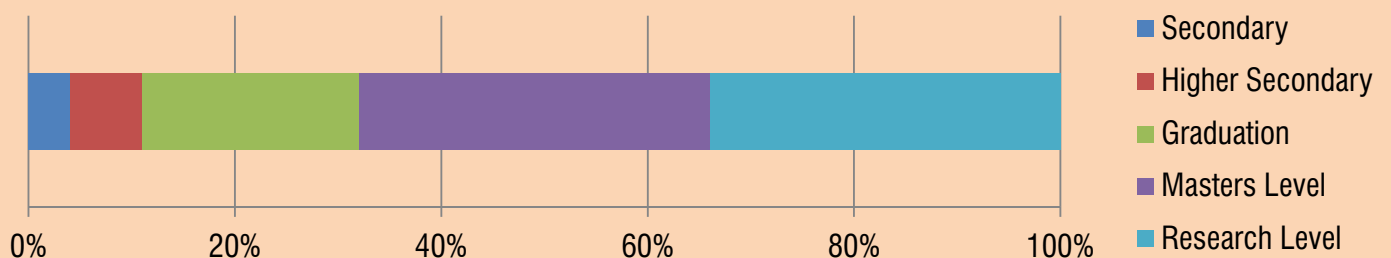
SELECTED STUDENT CHARACTERISTICS IN YOUR STATE

Student preference for subjects:



18% of students travel more than 5km to school.

How far students wish to study



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

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NAS for Transforming School Education