

40572



The College of New Jersey

Mathematics Education Survey

Thank you for taking the time to help us all better understand current Mathematics instruction in Pemberton. We will share the results with you.

Please Shade your response like this: ●

Not like this: ⊗ ⊙

A. Teacher Opinions

1) Please rate the following activities using the scale below:

-- 1 = Strongly Disagree; 2 = Disagree; 3 = No Opinion; 4 = Agree; 5 = Strongly Agree

- | | | | | | |
|---|-----------------------|----------------------------------|----------------------------------|-----------------------|-----------------------|
| | 1 | 2 | 3 | 4 | 5 |
| a. Students learn mathematics best in classes with students of similar abilities..... | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. The testing program in my state/district dictates what mathematics content I teach..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. I enjoy teaching mathematics..... | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. I consider myself a "master" mathematics teacher..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. I have time during the regular school week to work with my colleagues on mathematics curriculum and teaching..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. Mathematics teachers in this school regularly observe each other teaching classes as part of sharing and improving instructional strategies..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. Most mathematics teachers in this school contribute actively to making decisions about the mathematics curriculum..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

2) How familiar are you with the NCTM Standards?

- Not at all familiar
 Somewhat familiar
 Fairly familiar
 Very familiar

B. Teacher Background

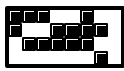
3) Please indicate how well prepared you currently feel to do each of the following in your **mathematics** instruction.

-- 1 = Not Adequately Prepared; 2 = Somewhat Prepared 3 = Fairly Well Prepared; 4 = Very Well Prepared

- | | | | | |
|--|-----------------------|----------------------------------|-----------------------|-----------------------|
| | 1 | 2 | 3 | 4 |
| a. Take students' prior understanding into account when planning curriculum and instruction..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Have students work in cooperative learning groups..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Use the textbook as a resource rather than the primary instructional tool..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Teach groups that are heterogeneous in ability..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. Teach students who have limited English proficiency..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. Encourage participation of females in mathematics..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. Encourage participation of minorities in mathematics..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

4) Please indicate the subject(s) for each of your degrees. Darken all that apply.

- | | Bachelors | Masters | Doctorate |
|---|-----------------------|----------------------------------|-----------------------|
| Mathematics..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| Computer Science..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mathematics Education..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| Science/Science Education..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Elementary Education..... | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| Other Education (e.g., History Education, Special Education)..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other, please specify _____ | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



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B. Teacher Background (continued...)

5) Do you have each of the following degrees?

Bachelors Yes No **Masters** Yes No **Doctorate** Yes No

6) In what year did you last take a formal course for college credit in:

a. Mathematics b. The Teaching of Mathematics

If you have never taken a course in the teaching of mathematics, please darken this **oval**:

7) What is the **total** amount of time you have spent on sustained and ongoing professional development in mathematics or in the methods of teaching mathematics in the last 12 months? In the last 3 years? (Do not include one-day workshops) (Darken one oval on each line.)

Hours of In-service Education

	None	Less than 16 hours	16-35 hours	More than 35 hours
In the last 12 months.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the last 3 years.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8) Do you teach in a **self-contained class**? (you teach multiple subjects to the same class of students all or most of the day)

Yes, CONTINUE WITH QUESTIONS 8b AND 8c

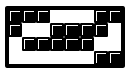
No, SKIP TO QUESTION 9

8b) **For teachers of self-contained classes:** Many teachers feel better qualified to teach some subject areas than others. How well qualified do you feel to teach each of the following subjects **at the grade level(s) you teach**, whether or not they are currently included in your curriculum? (Darken one oval on each line.)

	Not Well Qualified	Adequately Qualified	Very Well Qualified
a. Life science.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Earth science.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Physical science.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Mathematics.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Reading/Language Arts.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Social Studies.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8c) **For teachers of self-contained classes:** We are interested in knowing how much time your students spend studying various subjects. In a typical week, how many days do you have lessons on each of the following subjects, and how many minutes long is an average lesson? (Please indicate "0" if you do not teach a particular subject to this class.)

	Days Per Week	Approximate Minutes Per Day		Days Per Week	Approximate Minutes Per Day
Mathematics	<input type="text"/>	<input type="text"/>	Social Studies	<input type="text"/>	<input type="text"/>
Science	<input type="text"/>	<input type="text"/>	Reading/Language Arts	<input type="text"/>	<input type="text"/>



C. Your Mathematics Teaching in a Particular Course

9) In your mathematics teaching, how much emphasis will each of the following **student objectives** receive?
-- 1 = None; 2 = Minimal Emphasis; 3 = Moderate Emphasis; 4 = Heavy Emphasis

	1	2	3	4
a. Increase students' interest in mathematics.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
b. Learn mathematical concepts.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Learn mathematical algorithms/procedures.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
d. Develop students' computational skills.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Learn how to solve problems.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
f. Learn to reason mathematically.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Learn how mathematics ideas connect with one another.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
h. Prepare for further study in mathematics.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Understand the logical structure of mathematics.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
j. Learn about the history and nature of mathematics.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Learn to explain ideas in mathematics effectively.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
l. Learn how to apply mathematics in business and industry.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Learn to perform computations with speed and accuracy.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
n. Prepare for standardized tests.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10) About how often do you do each of the following in your mathematics instruction?

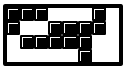
-- 1 = Never; 2 = Rarely (a few times a year); 3 = Sometimes (once or twice a month);
4 = Often (once or twice a week); 5 = All or almost all mathematical lessons

	1	2	3	4	5
a. Introduce content through formal presentations.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Pose open-ended questions.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Engage the whole class in discussions.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Require students to explain their reasoning when giving an answer.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Ask students to explain concepts to one another.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Ask students to consider alternative methods for solutions.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Ask students to use multiple representations (e.g., numeric, graphic, geometric, etc.).....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Allow students to work at their own pace.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Help students see connections between mathematics and other disciplines.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Assign mathematics homework.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Read and comment on the reflections students have written, e.g., in their journals.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

11) About how often do students in this mathematics class use **calculators/computers** to:

-- 1 = Never; 2 = Rarely (a few times a year); 3 = Sometimes (once or twice a month);
4 = Often (once or twice a week); 5 = All or almost all mathematical lessons

	1	2	3	4	5
a. Do drill and practice.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Demonstrate mathematics principles.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Play mathematics learning games.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Do simulations to solve probability problems.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Collect data using sensors or probes.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Retrieve or exchange data.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Analyze data.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Take a test or quiz.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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12) About how often do students in this **mathematics** class use take part in the following types of activities?

-- 1 = Never; 2 = Rarely (a few times a year); 3 = Sometimes (once or twice a month);
4 = Often (once or twice a week); 5 = All or almost all mathematical lessons

	1	2	3	4	5
a. Listen and take notes during presentation by teacher.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Work in groups.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Read from a mathematics textbook in class.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Read other (non-textbook) mathematics-related materials in class.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Engage in mathematical activities using concrete materials.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Practice routine computations/algorithms.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Review homework/worksheet assignments.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Follow specific instructions in an activity or investigation.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Design their own activity or investigation.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Use mathematical concepts to interpret and solve applied problems.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Answer textbook or worksheet questions.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Record, represent, and/or analyze data.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Write reflections (e.g., in a journal).....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Make formal presentations to the rest of the class.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Work on extended mathematics investigations or projects (a week or more in duration).....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Use calculators or computers for learning or practicing skills.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Use calculators or computers to develop conceptual understanding.....	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Use calculators or computers as a tool (e.g., spreadsheets, data analysis).....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13) How much mathematics homework do you assign to this mathematics class in a typical week?

- 0-30 min.
- 31-60 min.
- 61-90 min.
- 91-120 min.
- 2-3 hours
- More than 3 hours

D. Your Most Recent Mathematics Lesson in This Class

14a) How many minutes were allocated to the most recent mathematics lesson?

Note: Teachers in departmentalized and other non-self-contained settings should answer for the entire length of the class period, even if there were interruptions.

14b) Of these, how many minutes were spent on the following:

(The sum of the numbers in 1-6 below should equal your response in the question above.)

- 1. Daily routines, interruptions, and other non-instructional activities
- 2. Whole class lecture/discussions
- 3. Individual students reading textbooks, completing worksheets, etc
- 4. Working with hands-on or manipulative materials
- 5. Non-manipulative small group work
- 6. Other



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15) Which of the following activities took place during that mathematics lesson? (Darken all that apply.)

- Lecture
- Discussion
- Students completing textbook/worksheet problems
- Students doing hands-on/manipulative activities
- Students reading about mathematics
- Students working in small groups
- Students using calculators
- Students using computers
- Students using other technologies
- Test or quiz
- None of these activities took place

E. Demographic Information

16) Indicate your sex:

- Male
- Female

17) Are you: (Check all that apply)

- American Indian or Alaskan Native
- Asian
- Black or African-American
- Hispanic or Latino
- Native Hawaiian or Other Pacific Islander
- White

18) How many years have you taught at the K-12 level prior to this school year?

19) When did you complete this questionnaire? Date: / / (MM/DD/YY)

*Survey designed by: Horizon Research, Inc.
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Chapel Hill, NC 27514*

This concludes the survey. Thank you for your time and cooperation.