

2018 NSSME+

Mathematics Program Questionnaire

This questionnaire asks a number of questions about teachers of mathematics. In responding, unless otherwise specified, consider ALL teachers of mathematics in your school, including self-contained teachers who teach mathematics and other subjects to the same group of students all or most of the day.

1. Which of the following describe your position? [Select all that apply.]

<input type="checkbox"/>	Mathematics department chair
<input type="checkbox"/>	Mathematics lead teacher or coach
<input type="checkbox"/>	Mathematics/STEM specialist
<input type="checkbox"/>	Regular classroom teacher
<input type="checkbox"/>	Principal
<input type="checkbox"/>	Assistant principal
<input type="checkbox"/>	Other (please specify: _____)

School Programs and Practices

2. *[Presented only to schools that include self-contained teachers]*

Indicate whether each of the following programs and/or practices is currently being implemented in your school. [Select one on each row.]

	YES	NO
a. Students in self-contained classes receive mathematics instruction from a district/diocese/school mathematics specialist instead of their regular teacher.	<input type="radio"/>	<input type="radio"/>
b. Students in self-contained classes receive mathematics instruction from a district/diocese/school mathematics specialist in addition to their regular teacher.	<input type="radio"/>	<input type="radio"/>
c. Students in self-contained classes pulled out for remedial instruction in mathematics.	<input type="radio"/>	<input type="radio"/>
d. Students in self-contained classes pulled out for enrichment in mathematics.	<input type="radio"/>	<input type="radio"/>
e. Students in self-contained classes pulled out from mathematics instruction for additional instruction in other content areas.	<input type="radio"/>	<input type="radio"/>

3. *[Presented only to schools that include any grades 9–12]*

Indicate whether each of the following programs and/or practices is currently being implemented in your school. [Select one on each row.]

	YES	NO
a. Algebra 1 course, or its equivalent, offered over two years or as two separate block courses (for example: Algebra A and Algebra B, or Integrated Math A and Integrated Math B).	<input type="radio"/>	<input type="radio"/>
b. Calculus courses (beyond pre-Calculus) offered this school year or in alternating years, on or off site.	<input type="radio"/>	<input type="radio"/>
c. Students can go to a Career and Technical Education (CTE) center for mathematics instruction.	<input type="radio"/>	<input type="radio"/>
d. This school provides students access to virtual mathematics courses offered by other schools/institutions (for example: online, videoconference).	<input type="radio"/>	<input type="radio"/>
e. This school provides its own mathematics courses virtually (for example: online, videoconference).	<input type="radio"/>	<input type="radio"/>
f. Students can go to another K–12 school for mathematics courses.	<input type="radio"/>	<input type="radio"/>
g. Students can go to a college or university for mathematics courses.	<input type="radio"/>	<input type="radio"/>

4. Indicate whether your school does each of the following to enhance students' interest and/or achievement in mathematics. [Select one on each row.]

	YES	NO
a. Holds family math nights	<input type="radio"/>	<input type="radio"/>
b. Offers after-school help in mathematics (for example: tutoring)	<input type="radio"/>	<input type="radio"/>
c. Offers formal after-school programs for enrichment in mathematics	<input type="radio"/>	<input type="radio"/>
d. Offers one or more mathematics clubs	<input type="radio"/>	<input type="radio"/>
e. Participates in a local or regional mathematics fair	<input type="radio"/>	<input type="radio"/>
f. Has one or more teams participating in mathematics competitions (for example: Math Counts)	<input type="radio"/>	<input type="radio"/>
g. Encourages students to participate in mathematics summer programs or camps (for example: offered by community colleges, universities, museums or mathematics centers)	<input type="radio"/>	<input type="radio"/>
h. Coordinates visits to business, industry, and/or research sites related to mathematics	<input type="radio"/>	<input type="radio"/>
i. Coordinates meetings with adult mentors who work in mathematics fields	<input type="radio"/>	<input type="radio"/>
j. Coordinates internships in mathematics fields	<input type="radio"/>	<input type="radio"/>

Your State Standards

5. Please provide your opinion about each of the following statements in regard to your current state standards for mathematics. [Select one on each row.]

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
a. State mathematics standards have been thoroughly discussed by mathematics teachers in this school.	①	②	③	④	⑤
b. There is a school-wide effort to align mathematics instruction with the state mathematics standards.	①	②	③	④	⑤
c. Most mathematics teachers in this school teach to the state standards.	①	②	③	④	⑤
d. The school/district/diocese organizes mathematics professional development based on state standards.	①	②	③	④	⑤

Student Enrollment in Mathematics Courses

6. *[Presented only to schools that include grade 8]*

Approximately how many of this year's 8th grade students will have completed Algebra 1 or its equivalent (for example: Integrated Math 1) prior to 9th grade? [Enter your response as a whole number (for example: 15).] _____

7. *[Presented only to schools that include grade 8]*

Approximately how many of this year's 8th grade students will have completed Geometry or its equivalent (for example Integrated Math 2) prior to 9th grade? [Enter your response as a whole number (for example: 15).] _____

8. *[Presented only to schools that include any grades 9–12]*

Approximately how many students in grades 9–12 in this school will **not** take a mathematics course this year? [Enter your response as a whole number (for example: 1500)]

Mathematics Courses Offered in Your School

[Questions 9–16 presented only to schools that include any grades 9–12; schools that do not include any of these grades skip to Q17]

9. What types of mathematics courses are offered to grades 9–12 students in your school **this year**? [Select all that apply.]

<input type="checkbox"/>	Single-subject mathematics courses (for example: Algebra, Geometry)
<input type="checkbox"/>	Integrated mathematics courses

10. Is your school offering any courses in each of the following categories **this year** for students in grades 9–12? [Select one on each row.]

	YES	NO
a. Non-college prep mathematics courses <i>Example courses:</i> Developmental Math; High School Arithmetic; Remedial Math; General Math; Vocational Math; Consumer Math; Basic Math; Business Math; Career Math; Practical Math; Essential Math; Pre-Algebra; Introductory Algebra; Algebra 1 Part 1; Algebra 1A; Math A; Basic Geometry; Informal Geometry; Practical Geometry	<input type="radio"/>	<input type="radio"/>
b. Formal/College prep mathematics level 1 courses <i>Example courses:</i> Algebra 1; Integrated Math 1; Unified Math I; Algebra 1 Part 2; Algebra 1B; Math B	<input type="radio"/>	<input type="radio"/>
c. Formal/College prep mathematics level 2 courses <i>Example courses:</i> Geometry; Plane Geometry; Solid Geometry; Integrated Math 2; Unified Math II; Math C	<input type="radio"/>	<input type="radio"/>
d. Formal/College prep mathematics level 3 courses <i>Example courses:</i> Algebra 2; Intermediate Algebra; Algebra and Trigonometry; Advanced Algebra; Integrated Math 3; Unified Math III	<input type="radio"/>	<input type="radio"/>
e. Formal/College prep mathematics level 4 courses <i>Example courses:</i> Algebra 3; Trigonometry; Pre-Calculus; Analytic/Advanced Geometry; Elementary Functions; Integrated Math 4, Unified Math IV; Calculus (not including college level/AP); any other College Prep Senior Math with Algebra 2 as a prerequisite	<input type="radio"/>	<input type="radio"/>
f. Mathematics courses that might qualify for college credit <i>Example courses:</i> Advanced Placement Calculus (AB, BC); Advanced Placement Statistics; IB Mathematics Standard Level; IB Mathematics Higher Level; concurrent college and high school credit/dual enrollment	<input type="radio"/>	<input type="radio"/>

11. Does this school offer one or more courses focused specifically on probability and/or statistics? (Include both courses that are offered every year and those offered in alternating years.)

<input type="radio"/>	Yes
<input type="radio"/>	No [Skip to Q13]

12. What probability and/or statistics courses does this school offer? [Select all that apply.]

<input type="checkbox"/>	Probability and Statistics combined
<input type="checkbox"/>	Probability
<input type="checkbox"/>	Statistics

13. Does your school offer each of the following types of mathematics courses that might qualify for college credit? (Include both courses that are offered every year and those offered in alternating years.) [Select one on each row.]

	YES	NO
a. Advanced Placement (AP) mathematics courses	<input type="radio"/>	<input type="radio"/>
b. International Baccalaureate (IB) mathematics courses	<input type="radio"/>	<input type="radio"/>
c. Concurrent college and high school credit/dual enrollment mathematics courses	<input type="radio"/>	<input type="radio"/>

14. [Presented only to schools that selected “Yes” for Q13c]

When are concurrent college and high school credit/dual enrollment mathematics courses offered?

<input type="radio"/>	Offered this school year
<input type="radio"/>	Not offered this school year, but offered in alternating years

15. Which of the following mathematics courses are available to students in this school, either on site, at other locations, or online? [Select one on each row.]

	AVAILABLE		[IF AVAILABLE] WHERE OFFERED		[IF AVAILABLE] WHEN OFFERED	
	YES	NO	AT THIS SCHOOL	ELSEWHERE (OFFSITE OR ONLINE)	THIS YEAR	NOT THIS YEAR, BUT IN ALTERNATING YEARS
a. <i>[Skip if Q13a was “No”]</i> AP Calculus AB	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. <i>[Skip if Q13a was “No”]</i> AP Calculus BC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. <i>[Skip if Q13a was “No”]</i> AP Statistics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. <i>[Skip if Q13b was “No”]</i> IB Mathematical Studies Standard Level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. <i>[Skip if Q13b was “No”]</i> IB Mathematics Standard Level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. <i>[Skip if Q13b was “No”]</i> IB Mathematics Higher Level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. <i>[Skip if Q13b was “No”]</i> IB Further Mathematics Standard Level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mathematics Requirements

16. [Presented only to schools that include grade 12]

In order to graduate from this high school, how many years of grades 9–12 mathematics are students required to take?

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1 YEAR	2 YEARS	3 YEARS	4 YEARS

Influences on Mathematics Instruction

17. For this school, how much money was spent on each of the following during the most recently completed budget year? (If you don’t know the exact amounts, please provide your best estimates.) [Enter each response as a whole dollar amount without special characters such as dollar signs (for example: 1500).]

a. Consumable supplies for mathematics instruction (for example: graph paper)	
b. Non-consumable items for mathematics instruction such as calculators, protractors, manipulatives, etc. (Do not include computers)	
c. Software specific to mathematics instruction (for example: dynamic geometry software)	

18. Which of the following best describes how the mathematics instructional materials used in your school are selected? [Select one.]

<input type="radio"/>	At the district/diocese level (for example: by a mathematics supervisor or district/diocese -wide committee) <i>[Not presented to non-Catholic private schools]</i>
<input type="radio"/>	At the school level (for example: by the principal, department chair, or teacher committee/grade-level team)
<input type="radio"/>	By individual teachers

19. Please rate the effect of each of the following on the quality of mathematics instruction in your school. [Select one on each row.]

	INHIBITS EFFECTIVE INSTRUCTION		NEUTRAL OR MIXED		PROMOTES EFFECTIVE INSTRUCTION
a. The school/district/diocese mathematics professional development policies and practices	①	②	③	④	⑤
b. The amount of time provided by the school/district/diocese for teacher professional development in mathematics	①	②	③	④	⑤
c. The importance that the school places on mathematics	①	②	③	④	⑤
d. Other school and/or district/diocese initiatives	①	②	③	④	⑤
e. The amount of time provided by the school/district/diocese for teachers to share ideas about mathematics instruction	①	②	③	④	⑤
f. How mathematics instructional resources are managed (for example: distributing and replacing materials)	①	②	③	④	⑤

20. In your opinion, how great a problem is each of the following for mathematics instruction in your school as a whole? [Select one on each row.]

	NOT A SIGNIFICANT PROBLEM	SOMEWHAT OF A PROBLEM	SERIOUS PROBLEM
a. Lack of equipment and supplies and/or manipulatives for teaching mathematics (for example: materials for students to draw, cut and build in order to make sense of problems)	①	②	③
b. Inadequate funds for purchasing mathematics equipment and supplies	①	②	③
c. Lack of mathematics textbooks	①	②	③
d. Poor quality mathematics textbooks	①	②	③
e. Inadequate materials for differentiating mathematics instruction	①	②	③
f. Low student interest in mathematics	①	②	③
g. Low student prior knowledge and skills	①	②	③
h. Lack of teacher interest in mathematics	①	②	③
i. Inadequate teacher preparation to teach mathematics	①	②	③
j. High teacher turnover	①	②	③
k. Insufficient instructional time to teach mathematics	①	②	③
l. Inadequate mathematics-related professional development opportunities	①	②	③
m. Large class sizes	①	②	③
n. High student absenteeism	①	②	③
o. Inappropriate student behavior	①	②	③
p. Lack of parent/guardian support and involvement	①	②	③
q. Community attitudes toward mathematics instruction	①	②	③

Mathematics Professional Development Opportunities

21. In the last 3 years, has your school and/or district/diocese offered **workshops** specifically focused on mathematics or mathematics teaching, possibly in conjunction with other organizations (for example: other schools/districts/dioceses, colleges or universities, museums, professional associations, commercial vendors)?

<input type="radio"/>	Yes
<input type="radio"/>	No <i>[Skip to Q23]</i>

22. Please indicate the extent to which **workshops** offered by your school and/or district/diocese in the last 3 years emphasized each of the following: [Select one on each row.]

	NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
	①	②	③	④	⑤
a. Deepening teachers' understanding of mathematics concepts	①	②	③	④	⑤
b. Deepening teachers' understanding of how mathematics is done (for example: considering how to approach a problem, explaining and justifying solutions, creating and using mathematical models)	①	②	③	④	⑤
c. Deepening teachers' understanding of the state mathematics standards	①	②	③	④	⑤
d. Deepening teachers' understanding of how students think about various mathematical ideas	①	②	③	④	⑤
e. How to use particular mathematics instructional materials (for example: textbooks)	①	②	③	④	⑤
f. How to monitor student understanding during mathematics instruction	①	②	③	④	⑤
g. How to adapt mathematics instruction to address student misconceptions	①	②	③	④	⑤
h. How to use technology in mathematics instruction	①	②	③	④	⑤
i. How to use investigation-oriented tasks in mathematics instruction	①	②	③	④	⑤
j. How to develop students' confidence that they can successfully pursue careers in mathematics	①	②	③	④	⑤
k. How to incorporate real-world issues (for example: current events, community concerns) into mathematics instruction	①	②	③	④	⑤
l. How to connect instruction to mathematics career opportunities	①	②	③	④	⑤
m. How to integrate science, engineering, mathematics, and/or computer science	①	②	③	④	⑤
n. How to engage students in doing mathematics (for example: considering how to approach a problem, explaining and justifying solutions, creating and using mathematical models)	①	②	③	④	⑤
o. How to incorporate students' cultural backgrounds into mathematics instruction	①	②	③	④	⑤
p. How to differentiate mathematics instruction to meet the needs of diverse learners	①	②	③	④	⑤

23. In the last 3 years, has your school offered **teacher study groups** where teachers meet on a regular basis to discuss teaching and learning of mathematics, and possibly other content areas as well (sometimes referred to as Professional Learning Communities, PLCs, or lesson study)?

<input type="radio"/>	Yes
<input type="radio"/>	No [Skip to Q35]

24. *[Presented only to schools that include any grades K–5]*

Typically, are teachers of grades K–5 mathematics required to participate in these mathematics-focused **teacher study groups**?

<input type="radio"/>	Yes, all teachers of grades K–5 mathematics
<input type="radio"/>	Yes, but only mathematics/STEM specialists
<input type="radio"/>	No

25. *[Presented only to schools that include any grades 6–8]*

Typically, are teachers of grades 6–8 mathematics classes required to participate in these mathematics-focused **teacher study groups**?

<input type="radio"/>	Yes
<input type="radio"/>	No

26. *[Presented only to schools that include any grades 9–12]*

Typically, are teachers of grades 9–12 mathematics classes required to participate in these mathematics-focused **teacher study groups**?

<input type="radio"/>	Yes
<input type="radio"/>	No

27. Has your school specified a schedule for when these mathematics-focused **teacher study groups** are expected to meet?

<input type="radio"/>	Yes
<input type="radio"/>	No [Skip to Q30]

28. Over what period of time have these mathematics-focused **teacher study groups** typically been expected to meet?

<input type="radio"/>	The entire school year
<input type="radio"/>	One semester
<input type="radio"/>	Less than one semester

29. How often have these mathematics-focused **teacher study groups** typically been expected to meet?

<input type="radio"/>	Less than once a month
<input type="radio"/>	Once a month
<input type="radio"/>	Twice a month
<input type="radio"/>	More than twice a month

30. Which of the following describe the typical mathematics-focused **teacher study groups** in this school? [Select all that apply.]

<input type="checkbox"/>	Organized by grade level
<input type="checkbox"/>	Include teachers from multiple grade levels
<input type="checkbox"/>	Include teachers who teach different mathematics subjects
<input type="checkbox"/>	Include parents/guardians or other community members
<input type="checkbox"/>	Include higher education faculty or other “consultants”
<input type="checkbox"/>	Include school and/or district/diocese administrators
<input type="checkbox"/>	Limited to teachers from this school
<input type="checkbox"/>	Include teachers from other schools in the district/diocese <i>[Not presented to non-Catholic private schools]</i>
<input type="checkbox"/>	Include teachers from other schools outside of your district/diocese

31. Which of the following describe the typical mathematics-focused **teacher study groups** in this school? [Select all that apply.]

<input type="checkbox"/>	Teachers engage in mathematics investigations.
<input type="checkbox"/>	Teachers analyze student mathematics assessment results.
<input type="checkbox"/>	Teachers analyze mathematics instructional materials (for example: textbooks).
<input type="checkbox"/>	Teachers plan mathematics lessons together.
<input type="checkbox"/>	Teachers rehearse instructional practices (meaning: try out, receive feedback, and reflect on those practices).
<input type="checkbox"/>	Teachers observe each other’s mathematics instruction (either in-person or through video recording).
<input type="checkbox"/>	Teachers provide feedback on each other’s mathematics instruction.
<input type="checkbox"/>	Teachers examine classroom artifacts (for example: student work samples, videos of classroom instruction).

32. To what extent have these mathematics-focused **teacher study groups** emphasized each of the following? [Select one on each row.]

	NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a. Deepening teachers' understanding of mathematics concepts	①	②	③	④	⑤
b. Deepening teachers' understanding of how mathematics is done (for example: considering how to approach a problem, explaining and justifying solutions, creating and using mathematical models)	①	②	③	④	⑤
c. Deepening teachers' understanding of the state mathematics standards	①	②	③	④	⑤
d. Deepening teachers' understanding of how students think about various mathematical ideas	①	②	③	④	⑤
e. How to use particular mathematics instructional materials (for example: textbooks)	①	②	③	④	⑤
f. How to monitor student understanding during mathematics instruction	①	②	③	④	⑤
g. How to adapt mathematics instruction to address student misconceptions	①	②	③	④	⑤
h. How to use technology in mathematics instruction	①	②	③	④	⑤
i. How to use investigation-oriented tasks in mathematics instruction	①	②	③	④	⑤
j. How to develop students' confidence that they can successfully pursue careers in mathematics	①	②	③	④	⑤
k. How to incorporate real-world issues (for example: current events, community concerns) into mathematics instruction	①	②	③	④	⑤
l. How to connect instruction to mathematics career opportunities	①	②	③	④	⑤
m. How to integrate science, engineering, mathematics, and/or computer science	①	②	③	④	⑤
n. How to engage students in doing mathematics (for example: considering how to approach a problem, explaining and justifying solutions, creating and using mathematical models)	①	②	③	④	⑤
o. How to incorporate students' cultural backgrounds into mathematics instruction	①	②	③	④	⑤
p. How to differentiate mathematics instruction to meet the needs of diverse learners	①	②	③	④	⑤

33. Have there been designated leaders for these mathematics-focused **teacher study groups**?

<input type="radio"/>	Yes
<input type="radio"/>	No [Skip to Q35]

34. The designated leaders of these mathematics-focused **teacher study groups** were from: [Select all that apply.]

<input type="checkbox"/>	This school
<input type="checkbox"/>	Elsewhere in this district/diocese [Not presented to non-Catholic private schools]
<input type="checkbox"/>	College/University
<input type="checkbox"/>	External consultants
<input type="checkbox"/>	Other (please specify: _____)

35. Thinking about last school year, which of the following were used to provide teachers in this school with time for professional development workshops/teacher study groups that included a focus on mathematics and/or mathematics teaching, regardless of whether they were offered by your school and/or district/diocese? [Select all that apply.]

<input type="checkbox"/>	Early dismissal and/or late start for students
<input type="checkbox"/>	Professional days/teacher work days during the students' school year
<input type="checkbox"/>	Professional days/teacher work days before and/or after the students' school year
<input type="checkbox"/>	Common planning time for teachers
<input type="checkbox"/>	Substitute teachers to cover teachers' classes while they attend professional development
<input type="checkbox"/>	None of the above

36. Do any teachers in your school have access to **one-on-one coaching** focused on improving their mathematics instruction (include voluntary and required coaching)?

<input type="radio"/>	Yes
<input type="radio"/>	No <i>[Skip to Q39]</i>

37. This school year, how many teachers in this school have received one-on-one coaching focused on improving their mathematics instruction (include voluntary and required coaching)? [Enter response as a whole number (for example: 15)] _____

38. To what extent is one-on-one coaching focused on improving mathematics instruction provided by each of the following? [Select one on each row.]

	NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a. The principal of your school	①	②	③	④	⑤
b. An assistant principal at your school	①	②	③	④	⑤
c. District/Diocese administrators including mathematics supervisors/ coordinators <i>[Not presented to non-Catholic private schools]</i>	①	②	③	④	⑤
d. Teachers/coaches who do not have classroom teaching responsibilities	①	②	③	④	⑤
e. Teachers/coaches who have part-time classroom teaching responsibilities	①	②	③	④	⑤
f. Teachers/coaches who have full-time classroom teaching responsibilities	①	②	③	④	⑤

39. Which of the following are provided to teachers considered in need of special assistance in mathematics teaching? [Select all that apply.]

<input type="checkbox"/>	Seminars, classes, and/or study groups
<input type="checkbox"/>	Guidance from a formally designated mentor or coach
<input type="checkbox"/>	A higher level of supervision than for other teachers
<input type="checkbox"/>	None of the above

Thank you!