Survey Questionnaires

School Coordinator Questionnaire

Science Program Questionnaire

Mathematics Program Questionnaire

Science Teacher Questionnaire

Mathematics Teacher Questionnaire

High School Computer Science Teacher Questionnaire

2018 NSSME+
School Coordinator Questionnaire

1. How many students are currently enrolled in each of the following grades in your school?

	NUMBER OF STUDENTS
Pre-Kindergarten	
Kindergarten	
1st grade	
2nd grade	
3rd grade	
4th grade	
5th grade	
6th grade	
7th grade	
8th grade	
9th grade	
10th grade	
11th grade	
12th grade	
Ungraded	

2. Please indicate the number of students in this school in each of the following categories: (Please count each student only once.)

	NUMBER OF STUDENTS
American Indian or Alaska Native	
Asian	
Black or African American	
Hispanic/Latino	
Native Hawaiian or Other Pacific Islander	
White	
Two or more races	

3. Of the students in this school, how many…

	NUMBER OF STUDENTS
a. are eligible for free or reduced-price lunch?	
b. have an Individualized Education Plan (IEP)?	
c. are classified as English-language learners?	

4. ***[High schools only]***
Does your school use block scheduling (class periods scheduled to create extended blocks of instructional time) to organize most classes? *Select one.*

○	Yes
○	No

5. ***[High schools only]***
Does your school offer courses in which students can earn credit toward graduation in multiple subjects for the same course? *Select one.*

○	Yes
○	No ***[Skip to Question 7]***

6. ***[High schools only]***
For which of the following combinations of subjects does your school offer these courses? *Select all that apply.*

□	a.	Mathematics and science
□	b.	Mathematics and computer science
□	c.	Science and computer science
□	d.	None of these combinations

7. ***[High schools only]***
In each of the following subjects, does your school allow students to demonstrate mastery of course content for credit in a course without the normal seat-time requirement? *Select one on each row.*

		YES	NO
a.	Computer science	○	○
b.	Mathematics	○	○
c.	Science	○	○

8. Does your school have… *Select one on each row.*

		YES	NO
a.	One or more computer labs available for teachers to schedule for their classes?	○	○
b.	Laptop/tablet carts available for teachers to use with their classes?	○	○
c.	A 1-to-1 initiative (every student is provided with a laptop or tablet)?	○	○
d.	School-wide Wi-Fi?	○	○

9. Which of the following best describes your school's policy about students using their own computing devices in classes? *Select one.*

○	Students are required to provide their own laptops or tablets for use in classes.
○	Students are not required but are allowed to bring their own laptops or tablets for use in classes.
○	Students are not allowed to use their own laptops or tablets in classes.

10. Do any teachers in your school travel among different rooms because of a shortage of classrooms? *Select one.*

○	Yes
○	No ***[Skip to Question 12]***

11. Does your school ensure that teachers in their first year of teaching do not have to travel among different classrooms? *Select one.*

○	Yes
○	No

12. Does your school/district/diocese have a formal induction program for teachers new to the profession (support that is not offered to other teachers in the school)? *Select one.*

○	Yes
○	No ***[Skip to Question 17]***

13. How long does a teacher typically receive support from the induction program? *Select one.*

○	One year or less
○	2 years
○	3 or more years

14. Which of the following organizations are involved in developing and implementing the induction program? *Select all that apply.*

☐	a. School
☐	b. District/Diocese (if applicable)
☐	c. Regional or county educational service
☐	d. Local university
☐	e. Other; please specify _____

15. Which of the following supports are provided as part of the formal induction program? *Select all that apply.*

☐	a.	Release time to attend national, state, or local teacher conferences
☐	b.	Financial support to attend national, state, or local teacher conferences
☐	c.	Common planning time with experienced teachers who teach the same subject or grade level
☐	d.	Release time to observe other teachers in their grade/subject area
☐	e.	Formally assigned school-based mentor teachers
☐	f.	District/diocese-based or university-based mentors
☐	g.	Reduced course load
☐	h.	Reduced class size
☐	i.	Reduced number of teaching preps
☐	j.	A meeting to orient them to school/district/diocese policies and practices
☐	k.	Professional development opportunities on teaching their subject
☐	l.	Professional development opportunities on providing instruction that meets the needs of students from the cultural backgrounds represented in your school
☐	m.	Classroom aides/teaching assistants
☐	n.	Supplemental funding for classroom supplies

16. ***[For schools that select Question 15e only]***
Are formally assigned school-based mentor teachers in your school's induction program… *Select one on each row.*

		YES	NO
a.	given extra compensation for being a mentor?	○	○
b.	intentionally given release time or a reduced course load to work with their mentee?	○	○
c.	given training on effective mentoring practices?	○	○
d.	required to attend workshops with their mentees?	○	○
e.	when feasible, intentionally assigned to beginning teachers who teach the same subject or grade level?	○	○
f.	when feasible, intentionally given common planning time with their mentees?	○	○

Computer Science Programs and Practices

17. Indicate whether your school does each of the following to enhance students' interest and/or achievement in computer science. *Select one on each row.*

		YES	NO
a.	Holds family computer science nights	○	○
b.	Offers after-school help in computer science (for example: tutoring)	○	○
c.	Offers formal after-school programs for enrichment in computer science	○	○
d.	Offers one or more computer science clubs	○	○
e.	Participates in Hour of Code	○	○
f.	Participates in a local or regional computer science fair	○	○
g.	Has one or more teams participating in computer science competitions (for example: USA Computer Science Olympiad)	○	○
h.	Encourages students to participate in computer science summer programs or camps offered by community colleges, universities, museums or computer science centers	○	○
i.	Coordinates visits to business, industry, and/or research sites related to computer science	○	○
j.	Coordinates meetings with adult mentors who work in computer science fields	○	○
k.	***[High schools only]*** Coordinates internships in computer science fields	○	○

18. ***[Elementary and middle schools only]***
Does your school provide computer programming (for example: LOGO, Python, Scratch, Snap!) instruction to any or all students during the regular school day? *Select one.*

○	Yes
○	No ***[Skip to Question 30]***

19. Omitted – Item did not function properly.

20. Omitted – Item did not function properly.

21. ***[Elementary schools only]***
Who provides computer programming (for example: LOGO, Python, Scratch, Snap!) instruction to grades K–5 students during the regular school day? *Select all that apply.*

□	a.	Regular classroom teachers
□	b.	A school/district/diocese specialist
□	c.	Someone from outside of the school/district/diocese (for example: volunteers, university personnel)

22. ***[High schools only]***

In which of the following ways can grades 9–12 students in this school take a computer science course that teaches programming or requires programming as a prerequisite? *Select all that apply.*

☐	a.	From a teacher in this school
☐	b.	Through virtual courses offered by other schools/institutions (for example: online, videoconference)
☐	c.	By going to a Career and Technical Education (CTE) center
☐	d.	By going to another high school
☐	e.	By going to a college or university
☐	f.	Grades 9-12 students in this school cannot take a computer science course that teaches programming or requires programming as a prerequisite ***[If selected, skip to Question 30]***

23. ***[High schools only]***

Does your school offer each of the following types of computer science 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) computer science courses	○	○
b.	International Baccalaureate (IB) computer science courses	○	○
c.	Concurrent college and high school credit/dual enrollment computer science courses ***[If no, skip to Question 25]***	○	○

24. ***[High schools only]***

When are concurrent college and high school credit/dual enrollment computer science courses offered in this school? *Select one.*

○	Offered this school year
○	Not offered this school year, but offered in alternating years

25. ***[High schools only]***

Which of the following computer science courses are available to students in this school? For each course that is available, indicate where and when it is offered. *Select one on each row in each section, if applicable.*

	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. AP Computer Science A	○	○	○	○	○	○
b. AP Computer Science Principles	○	○	○	○	○	○
c. IB Computer science standard level	○	○	○	○	○	○
d. IB Computer science higher level	○	○	○	○	○	○
e. Other IB computer science course	○	○	○	○	○	○

26. ***[High schools only]***

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

GRADES 9–12 COURSE TYPE	EXAMPLE COURSES	YES	NO
a. **Computer technology courses that do not include programming**	Computer literacy, Keyboarding, Media technology (digital video/audio, multimedia presentations, digital arts), Desktop publishing, Computer applications (word processing, spreadsheets, slide presentations), Computer repair and computer networking, Web design, Computer-aided design (architectural drawing, fashion design), Other technology courses that do not teach or require programming	○	○
b. **Introductory high school computer science courses that include programming but do not qualify for college credit**	Computer Science Discoveries on code.org, Exploring computer science, PLTW's Computer Science Essentials, introductory programming course, IB Computer Science–Standard Level, Computer science elective that includes introductory programming	○	○
c. **Specialized/elective computer science courses with programming as a prerequisite that do not qualify for college credit**	Advanced Computer science electives such as Robotics, Game or mobile app development, or other advanced computer science elective with programming as a prerequisite	○	○

27. ***[High schools only; skip if no computer science courses that teach programming or have programming as a prerequisite are offered this year]***

Approximately how many students in grades 9–12 in this school will take a computer science course this year that includes programming or has programming as a prerequisite?

NUMBER OF STUDENTS

Computer Science Requirements

28. ***[High schools only]***
In order to graduate from this high school, how many years of computer science are grades 9–12 students required to take? *Select one.*

○	0 years
○	½ year
○	1 year
○	2 years
○	3 years
○	4 years

29. ***[High schools only]***
Can computer science courses count towards students' high school graduation requirements in each of the following subject areas? *Select one on each row.*

	YES	NO
a. Mathematics	○	○
b. Science	○	○
c. Foreign language	○	○

Computer Science Professional Development

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

○	Yes
○	No

31. **In the last three years**, has your school and/or district/diocese offered **teacher study groups** where teachers meet on a regular basis to discuss teaching and learning of computer science, and possibly other content areas as well (sometimes referred to as Professional Learning Communities, PLCs, or lesson study)? *Select one.*

○	Yes
○	No

32. Do any teachers in your school have access to **one-on-one coaching** focused on improving their computer science instruction (include voluntary and/or required coaching)? *Select one.*

○	Yes
○	No

Thank you!

2018 NSSME+
Science Program Questionnaire

This questionnaire asks a number of questions about teachers of science. In responding, unless otherwise specified, consider ALL teachers of science in your school, including self-contained teachers who teach science 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.]

□	Science department chair
□	Science lead teacher or coach
□	Science/STEM specialist
□	Regular classroom teacher
□	Principal
□	Assistant principal
□	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 science instruction from a district/diocese/school science specialist instead of their regular teacher.	○	○
b.	Students in self-contained classes receive science instruction from a district/diocese/school science specialist in addition to their regular teacher.	○	○
c.	Students in self-contained classes receive science instruction on a regular basis from someone outside of the school district/diocese (for example: museum staff).	○	○
d.	Students in self-contained classes pulled out for remedial instruction in science.	○	○
e.	Students in self-contained classes pulled out for enrichment in science.	○	○
f.	Students in self-contained classes pulled out from science instruction for additional instruction in other content areas.	○	○

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.	Physics courses offered this school year or in alternating years, on or off site.	○	○
b.	Students can go to a Career and Technical Education (CTE) Center for science and/or engineering instruction.	○	○
c.	This school provides students access to virtual science and/or engineering courses offered by other schools/institutions (for example: online, videoconference).	○	○
d.	This school provides its own science and/or engineering courses virtually (for example: online, videoconference).	○	○
e.	Students can go to another K–12 school for science and/or engineering courses.	○	○
f.	Students can go to a college or university for science and/or engineering courses.	○	○

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

		YES	NO
a.	Holds family science and/or engineering nights	○	○
b.	Offers after-school help in science and/or engineering (for example: tutoring)	○	○
c.	Offers formal after-school programs for enrichment in science and/or engineering	○	○
d.	Offers one or more science clubs	○	○
e.	Offers one or more engineering clubs	○	○
f.	Participates in a local or regional science and/or engineering fair	○	○
g.	Has one or more teams participating in science competitions (for example: Science Olympiad)	○	○
h.	Has one or more teams participating in engineering competitions (for example: Robotics)	○	○
i.	Encourages students to participate in science and/or engineering summer programs or camps (for example: offered by community colleges, universities, museums, or science centers)	○	○
j.	Coordinates visits to business, industry, and/or research sites related to science and/or engineering	○	○
k.	Coordinates meetings with adult mentors who work in science and/or engineering fields	○	○
l.	Coordinates internships in science and/or engineering fields	○	○

Your State Standards

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

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

Science Courses Offered in Your School

6. ***[Presented only to schools that include any grades 6–8]***
What types of science courses are offered to students in the following grades? [Select one on each row.]

	SINGLE-DISCIPLINE SCIENCE COURSES (FOR EXAMPLE: LIFE SCIENCE)	MULTI-DISCIPLINE SCIENCE COURSES (FOR EXAMPLE: GENERAL SCIENCE, INTEGRATED SCIENCE)	BOTH SINGLE-DISCIPLINE AND MULTI-DISCIPLINE SCIENCE COURSES
6th Grade	○	○	○
7th Grade	○	○	○
8th Grade	○	○	○

7. *[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 science course this year? [Enter your response as a whole number (for example: 1500).]
_____

[Questions 8–13 presented only to schools that include any grades 9–12; schools that do not include any of these grades skip to Q14]

8. 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. Coordinated/Integrated/Interdisciplinary science (including General Science and Physical Science)		
i. Non-college prep	○	○
ii. College prep, including honors	○	○
b. Earth/Space Science		
i. Non-college prep	○	○
ii. 1st year college prep, including honors	○	○
iii. 2nd year advanced, including concurrent college and high school credit/dual enrollment courses	○	○
c. Life Science/Biology		
i. Non-college prep	○	○
ii. 1st year college prep, including honors	○	○
iii. 2nd year advanced, including Advanced Placement, International Baccalaureate, and concurrent college and high school credit/dual enrollment courses	○	○
d. Environmental Science/Ecology		
i. Non-college prep	○	○
ii. 1st year college prep, including honors	○	○
iii. 2nd year advanced, including Advanced Placement, International Baccalaureate, and concurrent college and high school credit/dual enrollment courses	○	○
e. Chemistry		
i. Non-college prep	○	○
ii. 1st year college prep, including honors	○	○
iii. 2nd year advanced, including Advanced Placement, International Baccalaureate, and concurrent college and high school credit/dual enrollment courses	○	○
f. Physics		
i. Non-college prep	○	○
ii. 1st year college prep, including honors	○	○
iii. 2nd year advanced, including Advanced Placement, International Baccalaureate, and concurrent college and high school credit/dual enrollment courses	○	○
g. Engineering—Include courses that address the nature of engineering, engineering design processes, technological systems, or technology and society. Do not include career-technical education (CTE) courses that cover such things as automotive repair, audio/video production, etc.		
i. Non-college prep	○	○
ii. 1st year college prep, including honors	○	○
iii. 2nd year advanced, including concurrent college and high school credit/dual enrollment courses	○	○

9. Does your school offer each of the following types of science 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) science courses	○	○
b.	International Baccalaureate (IB) science courses	○	○
c.	Concurrent college and high school credit/dual enrollment science courses	○	○

10. ***[Presented only to schools that selected "Yes" for Q9c]***
When are concurrent college and high school credit/dual enrollment science courses offered?

○	Offered this school year
○	Not offered this school year, but offered in alternating years

11. Which of the following science 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.	*[Skip if Q9a was "No"]* AP Biology	○	○	○	○	○	○
b.	*[Skip if Q9a was "No"]* AP Chemistry	○	○	○	○	○	○
c.	*[Skip if Q9a was "No"]* AP Physics 1	○	○	○	○	○	○
d.	*[Skip if Q9a was "No"]* AP Physics 2	○	○	○	○	○	○
e.	*[Skip if Q9a was "No"]* AP Physics C: Electricity and Magnetism	○	○	○	○	○	○
f.	*[Skip if Q9a was "No"]* AP Physics C: Mechanics	○	○	○	○	○	○
g.	*[Skip if Q9a was "No"]* AP Environmental Science	○	○	○	○	○	○
h.	*[Skip if Q9b was "No"]* IB Biology	○	○	○	○	○	○
i.	*[Skip if Q9b was "No"]* IB Chemistry	○	○	○	○	○	○
j.	*[Skip if Q9b was "No"]* IB Physics	○	○	○	○	○	○
k.	*[Skip if Q9b was "No"]* IB Physics	○	○	○	○	○	○

Science Requirements

12. ***[Presented only to schools that include grade 12]***
In order to graduate from this high school, how many years of grades 9–12 science are students required to take?

1 YEAR	2 YEARS	3 YEARS	4 YEARS
○	○	○	○

13. ***[Presented only to schools that include grade 12]***
Does participation in Engineering courses count towards students' high school graduation requirements for science?

○	Yes
○	No

Influences on Science Instruction

14. 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 science instruction (for example: chemicals, living organisms, batteries)	
b.	Science equipment (non-consumable, non-perishable items such as microscopes, scales, etc., but not computers)	
c.	Software for science instruction	

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

○	At the district/diocese level (for example: by a science supervisor or district/diocese-wide committee) ***[Not presented to non-Catholic private schools]***
○	At the school level (for example: by the principal, department chair, or teacher committee/grade-level team)
○	By individual teachers

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

		INHIBITS EFFECTIVE INSTRUCTION		NEUTRAL OR MIXED		PROMOTES EFFECTIVE INSTRUCTION
a.	The school/district/diocese science 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 science	①	②	③	④	⑤
c.	The importance that the school places on science	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 science instruction	①	②	③	④	⑤
f.	How science instructional resources are managed (for example: distributing and refurbishing materials)	①	②	③	④	⑤

17. In your opinion, how great a problem is each of the following for science 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 science facilities (for example: lab tables, electric outlets, faucets and sinks in classrooms)	①	②	③
b.	Inadequate funds for purchasing science equipment and supplies	①	②	③
c.	Lack of science textbooks/modules	①	②	③
d.	Poor quality science textbooks/modules	①	②	③
e.	Inadequate materials for differentiating science instruction	①	②	③
f.	Low student interest in science	①	②	③
g.	Low student prior knowledge and skills	①	②	③
h.	Lack of teacher interest in science	①	②	③
i.	Inadequate teacher preparation to teach science	①	②	③
j.	High teacher turnover	①	②	③
k.	Insufficient instructional time to teach science	①	②	③
l.	Inadequate science-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 resistance to the teaching of "controversial" issues in science (for example: evolution, climate change)	①	②	③

Science Professional Development Opportunities

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

○	Yes
○	No *[Skip to Q20]*

19. 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
a.	Deepening teachers' understanding of science concepts	①	②	③	④	⑤
b.	Deepening teachers' understanding of how science is done (for example: developing scientific questions, developing and using models, engaging in argumentation)	①	②	③	④	⑤
c.	Deepening teachers' understanding of how engineering is done (for example: identifying criteria and constraints, designing solutions, optimizing solutions)	①	②	③	④	⑤
d.	Deepening teachers' understanding of the state science standards	①	②	③	④	⑤
e.	Deepening teachers' understanding of how students think about various science ideas	①	②	③	④	⑤
f.	How to use particular science/engineering instructional materials (for example: textbooks or modules)	①	②	③	④	⑤
g.	How to monitor student understanding during science instruction	①	②	③	④	⑤
h.	How to adapt science instruction to address student misconceptions	①	②	③	④	⑤
i.	How to use technology in science instruction	①	②	③	④	⑤
j.	How to develop students' confidence that they can successfully pursue careers in science/engineering	①	②	③	④	⑤
k.	How to incorporate real-world issues (for example: current events, community concerns) into science instruction	①	②	③	④	⑤
l.	How to connect instruction to science/engineering 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 science (for example: developing scientific questions, developing and using models, engaging in argumentation)	①	②	③	④	⑤
o.	How to engage students in doing engineering (for example: identifying criteria and constraints, designing solutions, optimizing solutions)	①	②	③	④	⑤
p.	How to incorporate students' cultural backgrounds into science instruction	①	②	③	④	⑤
q.	How to differentiate science instruction to meet the needs of diverse learners	①	②	③	④	⑤

20. **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 science/engineering, and possibly other content areas as well (sometimes referred to as Professional Learning Communities, PLCs, or lesson study)?

○	Yes
○	No *[Skip to Q32]*

21. ***[Presented only to schools that include any grades K–5]***
Typically, are teachers of grades K–5 science required to participate in these science/ engineering-focused **teacher study groups**?

○	Yes, all teachers of grades K–5 science
○	Yes, but only science/STEM specialists
○	No

22. ***[Presented only to schools that include any grades 6–8]***
Typically, are teachers of grades 6–8 science classes required to participate in these science/engineering-focused **teacher study groups**?

○	Yes
○	No

23. ***[Presented only to schools that include any grades 9–12]***
Typically, are teachers of grades 9–12 science classes required to participate in these science/engineering-focused **teacher study groups**?

○	Yes
○	No

24. Has your school specified a schedule for when these science/engineering-focused **teacher study groups** are expected to meet?

○	Yes
○	No ***[Skip to Q27]***

25. Over what period of time have these science/engineering-focused **teacher study groups** typically been expected to meet?

○	The entire school year
○	One semester
○	Less than one semester

26. How often have these science/engineering-focused teacher study groups typically been expected to meet?

○	Less than once a month
○	Once a month
○	Twice a month
○	More than twice a month

27. Which of the following describe the typical science/engineering-focused **teacher study groups** in this school? [Select all that apply.]

□	Organized by grade level
□	Include teachers from multiple grade levels
□	Include teachers who teach different science/engineering subjects
□	Include parents/guardians or other community members
□	Include higher education faculty or other "consultants"
□	Include school and/or district/diocese administrators
□	Limited to teachers from this school
□	Include teachers from other schools in the district/diocese ***[Not presented to non-Catholic private schools]***
□	Include teachers from other schools outside of your district/diocese

28. Which of the following describe the typical science/engineering-focused **teacher study groups** in this school? [Select all that apply.]

□	Teachers engage in science investigations.
□	Teachers engage in engineering design challenges.
□	Teachers analyze student science assessment results.
□	Teachers analyze science/engineering instructional materials (for example: textbooks or modules).
□	Teachers plan science/engineering lessons together.
□	Teachers rehearse instructional practices (meaning: try out, receive feedback, and reflect on those practices).
□	Teachers observe each other's science/engineering instruction (either in-person or through video recording).
□	Teachers provide feedback on each other's science/engineering instruction.
□	Teachers examine classroom artifacts (for example: student work samples, videos of classroom instruction).

29. To what extent have these science/engineering-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 science concepts	①	②	③	④	⑤
b.	Deepening teachers' understanding of how science is done (for example: developing scientific questions, developing and using models, engaging in argumentation)	①	②	③	④	⑤
c.	Deepening teachers' understanding of how engineering is done (for example: identifying criteria and constraints, designing solutions, optimizing solutions)	①	②	③	④	⑤
d.	Deepening teachers' understanding of the state science standards	①	②	③	④	⑤
e.	Deepening teachers' understanding of how students think about various science ideas	①	②	③	④	⑤
f.	How to use particular science/engineering instructional materials (for example: textbooks or modules)	①	②	③	④	⑤
g.	How to monitor student understanding during science/engineering instruction	①	②	③	④	⑤
h.	How to adapt science instruction to address student misconceptions	①	②	③	④	⑤
i.	How to use technology in science instruction	①	②	③	④	⑤
j.	How to develop students' confidence that they can successfully pursue careers in science/engineering	①	②	③	④	⑤
k.	How to incorporate real-world issues (for example: current events, community concerns) into science instruction	①	②	③	④	⑤
l.	How to connect instruction to science/engineering 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 science (for example: developing scientific questions, developing and using models, engaging in argumentation)	①	②	③	④	⑤
o.	How to engage students in doing engineering (for example: identifying criteria and constraints, designing solutions, optimizing solutions)	①	②	③	④	⑤
p.	How to incorporate students' cultural backgrounds into science instruction	①	②	③	④	⑤
q.	How to differentiate science instruction to meet the needs of diverse learners	①	②	③	④	⑤

30. Have there been designated leaders for these science/engineering-focused **teacher study groups**?

○	Yes
○	No *[Skip to Q32]*

31. The designated leaders of these science/engineering-focused **teacher study groups** were from: [Select all that apply.]

□	This school
□	Elsewhere in this district/diocese *[Not presented to non-Catholic private schools]*
□	College/University
□	External consultants
□	Other (please specify: _____)

32. 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 science/engineering and/or science/engineering teaching, regardless of whether they were offered by your school and/or district/diocese? [Select all that apply.]

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

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

○	Yes
○	No *[Skip to Q36]*

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

35. To what extent is one-on-one coaching focused on improving science 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 science supervisors/coordinators *[Not presented to non-Catholic private schools]*	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

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

□	Seminars, classes, and/or study groups
□	Guidance from a formally designated mentor or coach
□	A higher level of supervision than for other teachers
□	None of the above

Thank you!

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.]

□	Mathematics department chair
□	Mathematics lead teacher or coach
□	Mathematics/STEM specialist
□	Regular classroom teacher
□	Principal
□	Assistant principal
□	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.	○	○
b. Students in self-contained classes receive mathematics instruction from a district/diocese/school mathematics specialist **in addition** to their regular teacher.	○	○
c. Students in self-contained classes pulled out for remedial instruction in mathematics.	○	○
d. Students in self-contained classes pulled out for enrichment in mathematics.	○	○
e. Students in self-contained classes pulled out from mathematics instruction for additional instruction in other content areas.	○	○

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).	○	○
b.	Calculus courses (beyond pre-Calculus) offered this school year or in alternating years, on or off site.	○	○
c.	Students can go to a Career and Technical Education (CTE) center for mathematics instruction.	○	○
d.	This school provides students access to virtual mathematics courses offered by other schools/institutions (for example: online, videoconference).	○	○
e.	This school provides its own mathematics courses virtually (for example: online, videoconference).	○	○
f.	Students can go to another K–12 school for mathematics courses.	○	○
g.	Students can go to a college or university for mathematics courses.	○	○

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	○	○
b.	Offers after-school help in mathematics (for example: tutoring)	○	○
c.	Offers formal after-school programs for enrichment in mathematics	○	○
d.	Offers one or more mathematics clubs	○	○
e.	Participates in a local or regional mathematics fair	○	○
f.	Has one or more teams participating in mathematics competitions (for example: Math Counts)	○	○
g.	Encourages students to participate in mathematics summer programs or camps (for example: offered by community colleges, universities, museums or mathematics centers)	○	○
h.	Coordinates visits to business, industry, and/or research sites related to mathematics	○	○
i.	Coordinates meetings with adult mentors who work in mathematics fields	○	○
j.	Coordinates internships in mathematics fields	○	○

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.]

□	Single-subject mathematics courses (for example: Algebra, Geometry)
□	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 *Example courses*: 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	○	○
b. Formal/College prep mathematics level 1 courses *Example courses:* Algebra 1; Integrated Math 1; Unified Math I; Algebra 1 Part 2; Algebra 1B; Math B	○	○
c. Formal/College prep mathematics level 2 courses *Example courses:* Geometry; Plane Geometry; Solid Geometry; Integrated Math 2; Unified Math II; Math C	○	○
d. Formal/College prep mathematics level 3 courses *Example courses:* Algebra 2; Intermediate Algebra; Algebra and Trigonometry; Advanced Algebra; Integrated Math 3; Unified Math III	○	○
e. Formal/College prep mathematics level 4 courses *Example courses:* 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	○	○
f. Mathematics courses that might qualify for college credit *Example courses:* Advanced Placement Calculus (AB, BC); Advanced Placement Statistics; IB Mathematics Standard Level; IB Mathematics Higher Level; concurrent college and high school credit/ dual enrollment	○	○

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.)

○	Yes
○	No *[Skip to Q13]*

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

□	Probability and Statistics combined
□	Probability
□	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	○	○
b.	International Baccalaureate (IB) mathematics courses	○	○
c.	Concurrent college and high school credit/dual enrollment mathematics courses	○	○

14. ***[Presented only to schools that selected "Yes" for Q13c]***
When are concurrent college and high school credit/dual enrollment mathematics courses offered?

○	Offered this school year
○	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. ***[Skip if Q13a was "No"]*** AP Calculus AB	○	○	○	○	○	○
b. ***[Skip if Q13a was "No"]*** AP Calculus BC	○	○	○	○	○	○
c. ***[Skip if Q13a was "No"]*** AP Statistics	○	○	○	○	○	○
d. ***[Skip if Q13b was "No"]*** IB Mathematical Studies Standard Level	○	○	○	○	○	○
e. ***[Skip if Q13b was "No"]*** IB Mathematics Standard Level	○	○	○	○	○	○
f. ***[Skip if Q13b was "No"]*** IB Mathematics Higher Level	○	○	○	○	○	○
g. ***[Skip if Q13b was "No"]*** IB Further Mathematics Standard Level	○	○	○	○	○	○

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?

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.]

○	At the district/diocese level (for example: by a mathematics supervisor or district/diocese -wide committee) ***[Not presented to non-Catholic private schools]***
○	At the school level (for example: by the principal, department chair, or teacher committee/grade-level team)
○	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)?

○	Yes
○	No *[Skip to Q23]*

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
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)?

○	Yes
○	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**?

○	Yes, all teachers of grades K–5 mathematics
○	Yes, but only mathematics/STEM specialists
○	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**?

○	Yes
○	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**?

○	Yes
○	No

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

○	Yes
○	No *[Skip to Q30]*

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

○	The entire school year
○	One semester
○	Less than one semester

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

○	Less than once a month
○	Once a month
○	Twice a month
○	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.]

□	Organized by grade level
□	Include teachers from multiple grade levels
□	Include teachers who teach different mathematics subjects
□	Include parents/guardians or other community members
□	Include higher education faculty or other "consultants"
□	Include school and/or district/diocese administrators
□	Limited to teachers from this school
□	Include teachers from other schools in the district/diocese *[Not presented to non-Catholic private schools]*
□	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.]

□	Teachers engage in mathematics investigations.
□	Teachers analyze student mathematics assessment results.
□	Teachers analyze mathematics instructional materials (for example: textbooks).
□	Teachers plan mathematics lessons together.
□	Teachers rehearse instructional practices (meaning: try out, receive feedback, and reflect on those practices).
□	Teachers observe each other's mathematics instruction (either in-person or through video recording).
□	Teachers provide feedback on each other's mathematics instruction.
□	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**?

○	Yes
○	No *[Skip to Q35]*

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

□	This school
□	Elsewhere in this district/diocese *[Not presented to non-Catholic private schools]*
□	College/University
□	External consultants
□	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.]

□	Early dismissal and/or late start for students
□	Professional days/teacher work days during the students' school year
□	Professional days/teacher work days before and/or after the students' school year
□	Common planning time for teachers
□	Substitute teachers to cover teachers' classes while they attend professional development
□	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)?

○	Yes
○	No *[Skip to Q39]*

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 *[Not presented to non-Catholic private schools]*	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.]

□	Seminars, classes, and/or study groups
□	Guidance from a formally designated mentor or coach
□	A higher level of supervision than for other teachers
□	None of the above

Thank you!

2018 NSSME+
Science Teacher Questionnaire

Teacher Background and Opinions

1. How many years have you taught prior to this school year: [Enter each response as a whole number (for example: 15).]

a.	any subject at the K–12 level?	
b.	science at the K–12 level?	
c.	at this school, any subject?	

2. At what grade levels do you currently teach science? [Select all that apply.]

□	K–5
□	6–8
□	9–12
□	I do not currently teach science.

3. ***[Presented to self-contained teachers only]***
Which best describes the science instruction provided to the entire class?
   - Do not consider pull-out instruction that some students may receive for remediation or enrichment.
   - Do not consider instruction provided to individual or small groups of students, for example by an English-language specialist, special educator, or teacher assistant.

○	This class receives science instruction only from you. ***[Presented only to teachers who answered in Q2 that they teach science]***
○	This class receives science instruction from you and other teachers (for example: a science specialist or a teacher you team with). ***[Presented only to teachers who answered in Q2 that they teach science]***
○	This class receives science instruction only from another teacher (for example: a science specialist or a teacher you team with). ***[Presented only to teachers who answered in Q2 that they do not currently teach science] [Teacher ineligible, exit survey]***
○	This class does not receive science instruction this year. ***[Presented only to teachers who answered in Q2 that they do not currently teach science] [Teacher ineligible, exit survey]***

4. Omitted – Used only for survey routing.

5. ***[Presented to self-contained teachers only]***
Which best describes your science teaching?

○	I teach science all or most days, every week of the year.
○	I teach science every week, but typically not every day of the week.
○	I teach science some weeks, but typically not every week. ***[Skip to Q7]***

6. ***[Presented to self-contained teachers only]***
In a typical week, how many days do you teach lessons on each of the following subjects and how many minutes per week are spent on each subject? [Enter each response as a whole number (for example: 5, 150).]

	NUMBER OF DAYS PER WEEK	TOTAL NUMBER OF MINUTES PER WEEK
a. Mathematics		
b. Science		
c. Social Studies		
d. Reading/Language Arts		

7. ***[Presented only to self-contained teachers who did not answer Q6]***
In a typical year, how many weeks do you teach lessons on each of the following subjects and how many minutes per week are spent on each subject? [Enter each response as a whole number (for example: 36, 150).]

	NUMBER OF WEEKS PER YEAR	AVERAGE NUMBER OF MINUTES PER WEEK WHEN TAUGHT
a. Mathematics		
b. Science		
c. Social Studies		
d. Reading/Language Arts		

8. ***[Presented to non-self-contained teachers only]***
In a typical week, how many different classes (sections) of each of the following are you currently teaching? [Select one on each row.]
- If you meet with the *same class of students* multiple times per week, count that class only once.
- If you teach the *same science or engineering* course to multiple classes of students, count each class separately.

	0	1	2	3	4	5	6	7	8	9	10
Science (may include some engineering content)		○	○	○	○	○	○	○	○	○	○
Engineering	○	○	○	○	○	○	○	○	○	○	○

9. ***[Presented to non-self-contained teachers only]***
For each science class you currently teach, select the course type and enter the number of students enrolled. Enter the classes in the order that you teach them. For teachers on an alternating day block schedule, please order your classes starting with the first class you teach this week. Select one course type on each row and enter the number of students as a whole number (for example: 25).]

CLASS	COURSE TYPE	NUMBER OF STUDENTS ENROLLED
Your 1st science class:		
Your 2nd science class:		
…		
Your 10th science class:		

COURSE TYPE LIST	
1	Science (Grades K–5)
2	Life Science (Grades 6–8)
3	Earth/Space Science (Grades 6–8)
4	Physical Science (Grades 6–8)
5	General or Integrated Science (Grades 6–8)
6	Multi-discipline science courses (for example: General Science, Integrated Science, Physical Science) (Grades 9–12)
7	Earth/Space Science (Grades 9–12)
8	Life Science/Biology (Grades 9–12)
9	Environmental Science/Ecology (Grades 9–12)
10	Chemistry (Grades 9–12)
11	Physics (Grades 9–12)

10. ***[Presented to non-self-contained grades 9–12 teachers only]***
Use the descriptions below to select the level that best describes the content addressed in each grades 9–12 science class you teach. [Select one on each row.]

LEVEL	DESCRIPTION
Non-college Prep	A course that does not count towards the entrance requirements of a 4-year college. For example: Life Science.
1st Year College Prep, Including Honors	The first course in a discipline that counts towards the entrance requirements of a 4-year college. For example: Biology, Chemistry I.
2nd Year Advanced	A course typically taken after a 1st year college prep course. For example: Anatomy and Physiology, Advanced Chemistry, Physics II. Include Advanced Placement, International Baccalaureate, and concurrent college and high school credit/dual enrollment.

CLASS	COURSE TYPE	NON-COLLEGE PREP	1ST YEAR COLLEGE PREP, INCLUDING HONORS	2ND YEAR ADVANCED
Your 1st science class:	*[course type(s) teacher selected in Q9]*	○	○	○
Your 2nd science class:		○	○	○
…				
Your 10th science class:		○	○	○

11. ***[Presented to non-self-contained teachers only]***
Later in this questionnaire, we will ask you questions about your *[[xth]]* science class, which you indicated was *[[level indicated in Q10]] [[course type indicated in Q9]]*. What is your school's title for this course? _____

12. Have you been awarded one or more bachelor's and/or graduate degrees in the following fields? (With regard to bachelor's degrees, count only areas in which you majored. Do not include endorsements or certificates.) [Select one on each row.]

		YES	NO
a.	Education (general or subject specific such as science education)	○	○
b.	Engineering	○	○
c.	Natural Sciences (for example: biology, chemistry, physics, Earth sciences)	○	○
d.	Other, including social sciences; please specify _____	○	○

13. ***[Presented only to teachers that selected "Yes" for Q12a]***
What type of education degree do you have? (With regard to bachelor's degrees, count only areas in which you majored.) [Select all that apply.]

□	Elementary Education
□	Mathematics Education
□	Science Education
□	Other education, please specify. _____

14. ***[Presented only to teachers that selected "Yes" for Q12b]***
What type of engineering degree do you have? (With regard to bachelor's degrees, count only areas in which you majored.) [Select all that apply.]

□	Aerospace/Aeronautical/Astronautical Engineering
□	Bioengineering/Biomedical Engineering
□	Chemical Engineering
□	Civil Engineering
□	Computer Engineering
□	Electrical/Electronics Engineering
□	Environmental Engineering
□	Industrial/Manufacturing Engineering
□	Mechanical Engineering
□	Other engineering, please specify _____

15. ***[Presented only to teachers that selected "Yes" for Q12c]***
What type of natural science degree do you have? (With regard to bachelor's degrees, count only areas in which you majored.) [Select all that apply.]

□	Biology/Life Science
□	Chemistry
□	Earth/Space Science
□	Environmental Science/Ecology
□	Physics
□	Other natural science, please specify _____

16. Did you complete any of the following types of biology/life science courses at the undergraduate or graduate level? [Select one on each row.]

		YES	NO
a.	General/introductory biology/life science courses (for example: Biology I, Introduction to Biology, Biology for Teachers)	○	○
b.	Biology/life science courses beyond the general/introductory level	○	○
c.	Biology/life science teaching methods courses	○	○

17. ***[Presented only to teachers that selected "Yes" for Q16b]***
Please indicate which of the following biology/life science courses you completed (beyond a general/introductory course) at the undergraduate or graduate level. [Select all that apply.]

□	Anatomy/Physiology
□	Biochemistry
□	Botany
□	Cell Biology
□	Ecology
□	Evolution
□	Genetics
□	Microbiology
□	Zoology
□	Other biology/life science beyond the general/introductory level

18. Did you complete any of the following types of chemistry courses at the undergraduate or graduate level? [Select one on each row.]

		YES	NO
a.	General/introductory chemistry courses (for example: Chemistry I, Introduction to Chemistry)	○	○
b.	Chemistry courses beyond the general/introductory level	○	○
c.	Chemistry teaching methods courses	○	○

19. ***[Presented only to teachers that selected "Yes" for Q18b]***
Please indicate which of the following chemistry courses you completed (beyond a general/ introductory course) at the undergraduate or graduate level. [Select all that apply.]

□	Analytic Chemistry
□	Biochemistry
□	Inorganic Chemistry
□	Organic Chemistry
□	Physical Chemistry
□	Quantum Chemistry
□	Other chemistry beyond the general/introductory level

20. Did you complete any of the following types of physics courses at the undergraduate or graduate level? [Select one on each row.]

		YES	NO
a.	General/introductory physics courses (for example: Physics I, Introduction to Physics)	○	○
b.	Physics courses beyond the general/introductory level	○	○
c.	Physics teaching methods courses	○	○

21. ***[Presented only to teachers that selected "Yes" for Q20b]***
Please indicate which of the following physics courses you completed (beyond a general/ introductory course) at the undergraduate or graduate level. [Select all that apply.]

□	Astronomy/Astrophysics
□	Electricity and Magnetism
□	Heat and Thermodynamics
□	Mechanics
□	Modern or Quantum Physics
□	Nuclear Physics
□	Optics
□	Other physics beyond the general/introductory level

22. Did you complete any of the following types of Earth/space science courses at the undergraduate or graduate level? [Select one on each row.]

		YES	NO
a.	General/introductory Earth/space science courses (for example: Earth Science I, Introduction to Earth Science, Introductory Astronomy)	○	○
b.	Earth/space science courses beyond the general/introductory level	○	○
c.	Earth/space science teaching methods courses	○	○

23. ***[Presented only to teachers that selected "Yes" for Q22b]***
Please indicate which of the following Earth/space science courses you completed (beyond a general/introductory course) at the undergraduate or graduate level. [Select all that apply.]

□	Astronomy/Astrophysics
□	Geology
□	Meteorology
□	Oceanography
□	Physical Geography
□	Other Earth/space science beyond the general/introductory level

24. Did you complete any of the following types of environmental science courses at the undergraduate or graduate level? [Select one on each row.]

		YES	NO
a.	General/introductory environmental science courses (for example: Environmental Science I, Introduction to Environmental Science)	○	○
b.	Environmental science courses beyond the general/introductory level	○	○
c.	Environmental science teaching methods courses	○	○

25. ***[Presented only to teachers that selected "Yes" for Q24b]***
Please indicate which of the following environmental science courses you completed (beyond a general/introductory course) at the undergraduate or graduate level. [Select all that apply.]

□	Conservation Biology
□	Ecology
□	Forestry
□	Hydrology
□	Oceanography
□	Toxicology
□	Other environmental science beyond the general/introductory level

26. ***[Presented only to teachers who did not select Q12b]***
Did you complete one or more engineering courses at the undergraduate or graduate level?

○	Yes
○	No

27. Which of the following best describes the program you completed to earn your teaching credential (sometimes called certification or license)?

○	An undergraduate program leading to a bachelor's degree and a teaching credential
○	A post-baccalaureate credentialing program (no master's degree awarded)
○	A master's program that also led to a teaching credential
○	I have not completed a program to earn a teaching credential. ***[Skip to Q29]***

28. ***[Presented only to high school teachers]***
In which of the following areas are you certified (have a credential, endorsement, or license) to teach at the high school level? [Select all that apply.]

□	Biology/life science
□	Chemistry
□	Earth/space science
□	Ecology/environmental science
□	Engineering
□	Physics

29. After completing your undergraduate degree and prior to becoming a teacher, did you have a full-time job in a science- or engineering-related field?

○	Yes
○	No

Professional Development

The questions in this section ask about your participation in professional development focused on science/engineering or science/engineering teaching. When answering these questions, please include:

- face-to-face and/or online courses;
- professional meetings/conferences;
- workshops;
- professional learning communities/lesson studies/teacher study groups; and
- coaching and mentoring.

Do not include:

- courses you took prior to becoming a teacher; and
- time spent providing professional development (including coaching and mentoring) for other teachers.

30. When did you **last participate** in professional development focused on science/engineering or science/engineering teaching?

○	In the last 12 months
○	1–3 years ago
○	4–6 years ago
○	7–10 years ago
○	More than 10 years ago
○	Never

} *[Skip to Q35]*

31. **In the last 3 years,** which of the following types of professional development related to science/engineering or science/engineering teaching have you had? [Select one on each row.]

		YES	NO
a.	I attended a professional development program/workshop.	○	○
b.	I attended a national, state, or regional science teacher association meeting.	○	○
c.	I completed an online course/webinar.	○	○
d.	I participated in a professional learning community/lesson study/teacher study group	○	○
e.	I received assistance or feedback from a formally designated coach/mentor.	○	○
f.	I took a formal course for college credit.	○	○

32. What is the **total** amount of time you have spent on professional development related to science/engineering or science/engineering teaching **in the last 3 years**?

○	Less than 6 hours
○	6–15 hours
○	16–35 hours
○	36–80 hours
○	More than 80 hours

33. Considering all of your science- and engineering-related professional development **in the last 3 years**, to what extent does each of the following describe your experiences? [Select one on each row.]

		NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a.	I had opportunities to engage in science investigations/engineering design challenges.	①	②	③	④	⑤
b.	I had opportunities to experience lessons, as my students would, from the textbook/modules I use in my classroom.	①	②	③	④	⑤
c.	I had opportunities to examine classroom artifacts (for example: student work samples, videos of classroom instruction).	①	②	③	④	⑤
d.	I had opportunities to rehearse instructional practices during the professional development (meaning: try out, receive feedback, and reflect on those practices).	①	②	③	④	⑤
e.	I had opportunities to apply what I learned to my classroom and then come back and talk about it as part of the professional development.	①	②	③	④	⑤
f.	I worked closely with other teachers from my school.	①	②	③	④	⑤
g.	I worked closely with other teachers who taught the same grade and/ or subject whether or not they were from my school.	①	②	③	④	⑤

34. Thinking about all of your science- and engineering-related professional development **in the last 3 years**, to what extent was each of the following emphasized? [Select one on each row.]

		NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a.	Deepening your own science content knowledge	①	②	③	④	⑤
b.	Deepening your understanding of how science is done (for example: developing scientific questions, developing and using models, engaging in argumentation)	①	②	③	④	⑤
c.	Deepening your understanding of how engineering is done (for example: identifying criteria and constraints, designing solutions, optimizing solutions)	①	②	③	④	⑤
d.	Implementing the science textbook/modules to be used in your classroom	①	②	③	④	⑤
e.	Learning about difficulties that students may have with particular science ideas	①	②	③	④	⑤
f.	Finding out what students think or already know prior to instruction on a topic	①	②	③	④	⑤
g.	Monitoring student understanding during science instruction	①	②	③	④	⑤
h.	Differentiating science instruction to meet the needs of diverse learners	①	②	③	④	⑤
i.	Incorporating students' cultural backgrounds into science instruction	①	②	③	④	⑤
j.	Learning how to provide science instruction that integrates engineering, mathematics, and/or computer science	①	②	③	④	⑤

Preparedness to Teach

35. ***[Presented only to grades K–5 teachers; sub-items e-h for self-contained teachers only]***
Many teachers feel better prepared to teach some subject areas than others. How well prepared 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 teaching responsibilities? [Select one on each row.]

	NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a. Life Science	①	②	③	④
b. Earth/Space Science	①	②	③	④
c. Physical Science	①	②	③	④
d. Engineering	①	②	③	④
e. Mathematics	①	②	③	④
f. Reading/Language Arts	①	②	③	④
g. Social Studies	①	②	③	④
h. Computer Science/Programming	①	②	③	④

36. ***[Subset of items related to topic of randomly selected class presented to non-self-contained teachers]***

Within science, many teachers feel better prepared to teach some topics than others. How well prepared do you feel to teach each of the following topics **at the grade level(s) you teach**, whether or not they are currently included in your teaching responsibilities? [Select one on each row.]

	NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a. Earth/Space Science				
i. Earth's features and physical processes	①	②	③	④
ii. The solar system and the universe	①	②	③	④
iii. Climate and weather	①	②	③	④
b. Biology/Life Science				
i. Cell biology	①	②	③	④
ii. Structures and functions of organisms	①	②	③	④
iii. Ecology/ecosystems	①	②	③	④
iv. Genetics	①	②	③	④
v. Evolution	①	②	③	④
c. Chemistry				
i. Atomic structure	①	②	③	④
ii. Chemical bonding, equations, nomenclature, and reactions	①	②	③	④
iii. Elements, compounds, and mixtures	①	②	③	④
iv. The Periodic Table	①	②	③	④
v. Properties of solutions	①	②	③	④
vi. States, classes, and properties of matter	①	②	③	④
d. Physics				
i. Forces and motion	①	②	③	④
ii. Energy transfers, transformations, and conservation	①	②	③	④
iii. Properties and behaviors of waves	①	②	③	④
iv. Electricity and magnetism	①	②	③	④
v. Modern physics (for example: special relativity)	①	②	③	④
e. Engineering				
i. Defining engineering problems	①	②	③	④
ii. Developing possible solutions	①	②	③	④
iii. Optimizing a design solution	①	②	③	④
f. Environmental and resource issues (for example: land and water use, energy resources and consumption, sources and impacts of pollution)	①	②	③	④

37. How well prepared do you feel to do each of the following in your science instruction? [Select one on each row.]

		NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a.	Develop students' conceptual understanding of the science ideas you teach	①	②	③	④
b.	Develop students' abilities to do science (for example: develop scientific questions; design and conduct investigations; analyze data; develop models, explanations, and scientific arguments)	①	②	③	④
c.	Develop students' awareness of STEM careers	①	②	③	④
d.	Provide science instruction that is based on students' ideas (whether completely correct or not) about the topics you teach	①	②	③	④
e.	Use formative assessment to monitor student learning	①	②	③	④
f.	Differentiate science instruction to meet the needs of diverse learners	①	②	③	④
g.	Incorporate students' cultural backgrounds into science instruction	①	②	③	④
h.	Encourage students' interest in science and/or engineering	①	②	③	④
i.	Encourage participation of all students in science and/or engineering	①	②	③	④

Opinions about Science Instruction

38. Please provide your opinion about each of the following statements. [Select one on each row.]

		STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
a.	Students learn science best in classes with students of similar abilities.	①	②	③	④	⑤
b.	It is better for science instruction to focus on ideas in depth, even if that means covering fewer topics.	①	②	③	④	⑤
c.	At the beginning of instruction on a science idea, students should be provided with definitions for new scientific vocabulary that will be used.	①	②	③	④	⑤
d.	Teachers should explain an idea to students before having them consider evidence that relates to the idea.	①	②	③	④	⑤
e.	Most class periods should provide opportunities for students to share their thinking and reasoning.	①	②	③	④	⑤
f.	Hands-on/laboratory activities should be used primarily to reinforce a science idea that the students have already learned.	①	②	③	④	⑤
g.	Teachers should ask students to support their conclusions about a science concept with evidence.	①	②	③	④	⑤
h.	Students learn best when instruction is connected to their everyday lives.	①	②	③	④	⑤
i.	Most class periods should provide opportunities for students to apply scientific ideas to real-world contexts.	①	②	③	④	⑤
j.	Students should learn science by doing science (for example: developing scientific questions; designing and conducting investigations; analyzing data; developing models, explanations, and scientific arguments).	①	②	③	④	⑤

Leadership Experiences

39. **In the last 3 years** have you… [Select one on each row.]

		YES	NO
a.	Served as a lead teacher or department chair in science?	○	○
b.	Served as a ***formal*** mentor or coach for a science teacher? (Do not include supervision of student teachers.)	○	○
c.	Supervised a student teacher in your classroom?	○	○
d.	Served on a school or district/diocese-wide science committee (for example: developing curriculum, developing pacing guides, selecting instructional materials)?	○	○
e.	Led or co-led a workshop or professional learning community (for example: teacher study group, lesson study) for other teachers focused on science or science teaching?	○	○
f.	Taught a science lesson for other teachers in your school to observe?	○	○
g.	Observed another teacher's science lesson for the purpose of giving him/her feedback?	○	○

Your Science Instruction

The rest of this questionnaire is about your science instruction in your *[[xth]]* science class, which you indicated is *[[level indicated in Q10]] [[type indicated in Q9]]* and is titled *[[title provided in Q11]]*. ***[Instructions presented to non-self-contained teachers only]***

40. ***[Presented to non-self-contained teachers only]***
    On average, how many minutes per week does this class meet? [Enter your response as a whole number (for example: 300).] _____

The rest of this questionnaire is about your science instruction in this randomly selected class. ***[Instructions presented to self-contained teachers only]***

41. Enter the number of students for each grade represented in this class. [Enter each response as a whole number (for example: 15).]

Kindergarten	
1st grade	
2nd grade	
3rd grade	
4th grade	
5th grade	
6th grade	
7th grade	
8th grade	
9th grade	
10th grade	
11th grade	
12th grade	

42. For the *[sum of Q41]* students in this class, indicate the number of males and females in each of the following categories of race/ethnicity. [Enter each response as a whole number (for example: 15).]

		MALES	FEMALES
a.	American Indian or Alaskan Native		
b.	Asian		
c.	Black or African American		
d.	Hispanic or Latino		
e.	Native Hawaiian or Other Pacific Islander		
f.	White		
g.	Two or more races		

43. Which of the following best describes the prior science achievement levels of the students in this class relative to other students in this school?

○	Mostly low achievers
○	Mostly average achievers
○	Mostly high achievers
○	A mixture of levels

44. How much control do you have over each of the following for science instruction in this class? [Select one on each row.]

		NO CONTROL		MODERATE CONTROL		STRONG CONTROL
a.	Determining course goals and objectives	①	②	③	④	⑤
b.	Selecting curriculum materials (for example: textbooks/modules)	①	②	③	④	⑤
c.	Selecting content, topics, and skills to be taught	①	②	③	④	⑤
d.	Selecting the sequence in which topics are covered	①	②	③	④	⑤
e.	Determining the amount of instructional time to spend on each topic	①	②	③	④	⑤
f.	Selecting teaching techniques	①	②	③	④	⑤
g.	Determining the amount of homework to be assigned	①	②	③	④	⑤
h.	Choosing criteria for grading student performance	①	②	③	④	⑤

45. Think about your plans for this class for the entire course/year. By the end of the course/ year, how much emphasis will each of the following student objectives receive? [Select one on each row.]

		NONE	MINIMAL EMPHASIS	MODERATE EMPHASIS	HEAVY EMPHASIS
a.	Learning science vocabulary and/or facts	①	②	③	④
b.	Understanding science concepts	①	②	③	④
c.	Learning about different fields of science/engineering	①	②	③	④
d.	Learning how to do science (develop scientific questions; design and conduct investigations; analyze data; develop models, explanations, and scientific arguments)	①	②	③	④
e.	Learning how to do engineering (for example: identify criteria and constraints, design solutions, optimize solutions)	①	②	③	④
f.	Learning about real-life applications of science/engineering	①	②	③	④
g.	Increasing students' interest in science/engineering	①	②	③	④
h.	Developing students' confidence that they can successfully pursue careers in science/engineering	①	②	③	④
i.	Learning test-taking skills/strategies	①	②	③	④

46. How often do **you** do each of the following in your science instruction in this class? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL SCIENCE LESSONS
a. Explain science ideas to the whole class	①	②	③	④	⑤
b. Engage the whole class in discussions	①	②	③	④	⑤
c. Have students work in small groups	①	②	③	④	⑤
d. Have students do hands-on/laboratory activities	①	②	③	④	⑤
e. Use flipped instruction (have students watch lectures/demonstrations outside of class to prepare for in-class activities)	①	②	③	④	⑤
f. Have students read from a textbook, module, or other material in class, either aloud or to themselves	①	②	③	④	⑤
g. Engage the class in project-based learning (PBL) activities	①	②	③	④	⑤
h. Have students write their reflections (for example: in their journals, on exit tickets) in class or for homework	①	②	③	④	⑤
i. Focus on literacy skills (for example: informational reading or writing strategies)	①	②	③	④	⑤
j. Have students practice for standardized tests	①	②	③	④	⑤

47. How often do you have **students** do each of the following during science instruction in this class? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL SCIENCE LESSONS
a. Determine whether or not a question is "scientific" (meaning it requires an answer supported by evidence gathered through systematic investigation)	①	②	③	④	⑤
b. Generate scientific questions based on their curiosity, prior knowledge, careful observation of real-world phenomena, scientific models, or preliminary data from an investigation	①	②	③	④	⑤
c. Determine what data would need to be collected in order to answer a scientific question (regardless of who generated the question)	①	②	③	④	⑤
d. Develop procedures for a scientific investigation to answer a scientific question (regardless of who generated the question)	①	②	③	④	⑤
e. Conduct a scientific investigation (regardless of who developed the procedures)	①	②	③	④	⑤
f. Organize and/or represent data using tables, charts, or graphs in order to facilitate analysis of the data	①	②	③	④	⑤
g. Compare data from multiple trials or across student groups for consistency in order to identify potential sources of error or inconsistencies in the data	①	②	③	④	⑤
h. Analyze data using grade-appropriate methods in order to identify patterns, trends, or relationships	①	②	③	④	⑤

i.	Consider how missing data or measurement error can affect the interpretation of data	①	②	③	④	⑤
j.	Make and support claims (proposed answers to scientific questions) with evidence	①	②	③	④	⑤
k.	Use multiple sources of evidence (for example: different investigations, scientific literature) to develop an explanation	①	②	③	④	⑤
l.	Revise their explanations (claims supported by evidence and reasoning) for real-world phenomena based on additional evidence	①	②	③	④	⑤
m.	Develop scientific models—physical, graphical, or mathematical representations of real-world phenomena—based on data and reasoning	①	②	③	④	⑤
n.	Identify the strengths and limitations of a scientific model—in terms of accuracy, clarity, generalizability, accessibility to others, strength of evidence supporting it—regardless of who created the model	①	②	③	④	⑤
o.	Select and use grade-appropriate mathematical and/or statistical techniques to analyze data (for example: determining the best measure of central tendency, examining variation in data, or developing a fit line)	①	②	③	④	⑤
p.	Use mathematical and/or computational models to generate data to support a scientific claim	①	②	③	④	⑤
q.	Determine what details about an investigation (for example: its design, implementation, and results) might persuade a targeted audience about a scientific claim (regardless of who made the claim)	①	②	③	④	⑤
r.	Use data and reasoning to defend, verbally or in writing, a claim or refute alternative scientific claims about a real-world phenomenon (regardless of who made the claims)	①	②	③	④	⑤
s.	Evaluate the strengths and weaknesses of competing scientific explanations (claims supported by evidence) for a real-world phenomenon	①	②	③	④	⑤
t.	Construct a persuasive case, verbally or in writing, for the best scientific model or explanation for a real-world phenomenon	①	②	③	④	⑤
u.	Pose questions that elicit relevant details about the important aspects of a scientific argument (for example: the claims/models/explanations, research design, implementation, data analysis)	①	②	③	④	⑤
v.	Evaluate the credibility of scientific information—for example: its reliability, validity, consistency, logical coherence, lack of bias, or methodological strengths and weaknesses (regardless of whether it is from their own or others' work)	①	②	③	④	⑤
w.	Summarize patterns, similarities, and differences in scientific information obtained from multiple sources (regardless of whether it is from their own or others' work)	①	②	③	④	⑤

48. Thinking about your instruction in this class over the entire year, about how often do you incorporate engineering into your science instruction?

o	Never
o	Rarely (for example: A few times per year)
o	Sometimes (for example: Once or twice a month)
o	Often (for example: Once or twice a week)
o	All or almost all science lessons

49. Thinking about your instruction in this class over the entire year, about how often do you have students use coding to develop or revise computer programs as part of your science instruction (for example: use Scratch or Python as part of doing science)?

o	Never
o	Rarely (for example: A few times per year)
o	Sometimes (for example: Once or twice a month)
o	Often (for example: Once or twice a week)
o	All or almost all science lessons

50. In a typical week, how much time outside of this class are students expected to spend on science assignments?

○	None
○	1–15 minutes per week
○	16–30 minutes per week
○	31–60 minutes per week
○	61–90 minutes per week
○	91–120 minutes per week
○	More than 2 hours per week

51. How often are students in this class required to take science tests that you did not choose to administer, for example state assessments or district benchmarks? Do not include Advanced Placement or International Baccalaureate exams or students retaking a test because of failure.

○	Never
○	Once a year
○	Twice a year
○	Three or four times a year
○	Five or more times a year

52. Please indicate the availability of each of the following for your science instruction in this class. [Select one on each row.]

		LOCATED IN YOUR CLASSROOM	AVAILABLE IN ANOTHER ROOM	NOT AVAILABLE
a.	Lab tables	○	○	○
b.	Electric outlets	○	○	○
c.	Faucets and sinks	○	○	○
d.	Gas for burners *[Grades 9-12 only]*	○	○	○
e.	Fume hoods *[Grades 9–12 only]*	○	○	○

53. Please indicate the availability of each of the following for your science instruction in this class. [Select one on each row.]

		ALWAYS AVAILABLE IN YOUR CLASSROOM	AVAILABLE UPON REQUEST	NOT AVAILABLE
a.	Probes for collecting data (for example: motion sensors, temperature probes)	○	○	○
b.	Microscopes	○	○	○
c.	Balances (for example: pan, triple beam, digital scale)	○	○	○
d.	Projection devices (for example: Smartboard, document camera, LCD projector)	○	○	○

54. Science courses may benefit from the availability of particular resources. Considering what you have available, how adequate is each of the following for teaching this science class? [Select one on each row.]

		NOT ADEQUATE		SOMEWHAT ADEQUATE		ADEQUATE
a.	Instructional technology (for example: calculators, computers, probes/sensors)	①	②	③	④	⑤
b.	Consumable supplies (for example: chemicals, living organisms, batteries)	①	②	③	④	⑤
c.	Equipment (for example: thermometers, magnifying glasses, microscopes, beakers, photogate timers, Bunsen burners)	①	②	③	④	⑤
d.	Facilities (for example: lab tables, electric outlets, faucets and sinks)	①	②	③	④	⑤

This item asks about different types of instructional materials; please read the entire list of materials before answering

55. Thinking about your instruction in this class over the entire year, about how often is instruction based on materials from each of the following sources? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL SCIENCE LESSONS
a. Commercially published textbooks (printed or electronic), including the supplementary materials (for example: worksheets, laboratory handouts) that accompany the textbooks	①	②	③	④	⑤
b. Commercially published kits/modules (printed or electronic)	①	②	③	④	⑤
c. State, county, or district/diocese-developed units or lessons	①	②	③	④	⑤
d. Online units or courses that students work through at their own pace (for example: i-Ready, Edgenuity)	①	②	③	④	⑤
e. Lessons or resources from websites that have a subscription fee or per lesson cost (for example: BrainPOP, Discovery Ed, Teachers Pay Teachers)	①	②	③	④	⑤
f. Lessons or resources from websites that are free (for example: Khan Academy, PhET)	①	②	③	④	⑤
g. Units or lessons you created (either by yourself or with others)	①	②	③	④	⑤
h. Units or lessons you collected from any other source (for example: conferences, journals, colleagues, university or museum partners)	①	②	③	④	⑤

56. Does your school/district/diocese designate instructional materials (textbooks, kits, modules, units, or lessons) to be used in this class?

○	Yes
○	No *[Skip to Q58]*

57. Which of the following types of instructional materials does your school/district/diocese designate to be used in this class? [Select all that apply.]

□	Commercially published textbooks (printed or electronic), including the supplementary materials (for example: worksheets, laboratory handouts) that accompany the textbooks
□	Commercially published kits/modules (printed or online)
□	State, county, or district/diocese-developed instructional materials
□	Online units or courses that students work through at their own pace (for example: i-Ready, Edgenuity)
□	Lessons or resources from websites that have a subscription fee or per lesson cost (for example: BrainPOP, Discovery Ed, Teachers Pay Teachers)
□	Lessons or resources from websites that are free (for example: Khan Academy, PhET)

58. Omitted – Used only for survey routing.

59. ***[Presented only to teachers who selected "Sometimes" "Often" or "All" for Q55a, b, or d]*** [Version for teachers who indicate using a commercial textbook most often] Please indicate the title, author, most recent copyright year, and ISBN code of the commercially published textbook or kits/modules (printed or electronic) used most often by the students in this class.

- If you use multiple kits/modules, select one to enter the information for.
- The 10- or 13-character ISBN code can be found on the copyright page and/or the back cover of the textbook or kit/module.
- Do not include the dashes when entering the ISBN.
- Example ISBN:

[Version for teachers who indicate using an online course most often] Please indicate the title and URL of the online units or courses used most often by the students in this class.

Title:	
First Author: [for teachers who indicate using a commercial textbook most often]	
Year: [for teachers who indicate using a commercial textbook most often]	
ISBN: [for teachers who indicate using a commercial textbook most often]	
URL: [for teachers who indicate using an online program most often]	

60. Please rate how each of the following affects your science instruction in this class. [Select one on each row.]

		INHIBITS EFFECTIVE INSTRUCTION		NEUTRAL OR MIXED		PROMOTES EFFECTIVE INSTRUCTION	N/A
a.	Current state standards	①	②	③	④	⑤	○
b.	District/diocese and/or school pacing guides	①	②	③	④	⑤	○
c.	State/district/diocese testing/accountability policies ***[Not presented to non-Catholic private schools]***	①	②	③	④	⑤	○
d.	Textbook/module selection policies	①	②	③	④	⑤	○
e.	Teacher evaluation policies	①	②	③	④	⑤	○
f.	College entrance requirements **[Presented to grades 9–12 teachers only]**	①	②	③	④	⑤	○
g.	Students' prior knowledge and skills	①	②	③	④	⑤	○
h.	Students' motivation, interest, and effort in science	①	②	③	④	⑤	○
i.	Parent/guardian expectations and involvement	①	②	③	④	⑤	○
j.	Principal support	①	②	③	④	⑤	○
k.	Amount of time for you to plan, individually and with colleagues	①	②	③	④	⑤	○
l.	Amount of time available for your professional development	①	②	③	④	⑤	○
m.	Amount of instructional time devoted to science **[Presented to grades K–5 teachers only]**	①	②	③	④	⑤	○

Your Most Recently Completed Science Unit in this Class

The questions in this section are about the most recently completed science unit in this class which you indicated is *[level indicated in Q10]* *[type indicated in Q9]* and is titled *[title provided in Q11]*.

- Depending on the structure of your class and the instructional materials you use, a unit may range from a few to many class periods.
- Do not be concerned if this unit was not typical of your instruction.

61. Which one of the following best describes the content of this unit?

○	Earth/space science
○	Life science/biology
○	Environmental science/ecology
○	Chemistry
○	Physics
○	Engineering

62. ***[Presented only to teachers who selected "Sometimes" "Often" or "All" for Q55a, b, or c]***
Was this unit based primarily on a commercially published textbook/kit/module or state, county, or district/diocese-developed materials?

○	Yes
○	No ***[Skip to Q66]***

This next set of items is about the commercially published textbook/kit/module or state, county, or district/diocese-developed lessons you used in this unit.

63. Please indicate the extent to which you did each of the following while teaching this unit. [Select one on each row.]

		NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a.	I used these materials to guide the structure and content emphasis of the unit.	①	②	③	④	⑤
b.	I picked what is important from these materials and skipped the rest.	①	②	③	④	⑤
c.	I incorporated activities (for example: problems, investigations, readings) from other sources to supplement what these materials were lacking.	①	②	③	④	⑤
d.	I modified activities from these materials.	①	②	③	④	⑤

64. ***[Presented only to teachers who did not select "Not at all" for Q63b]***
During this unit, when you skipped activities (for example: problems, investigations, readings) in these materials, how much was each of the following a factor in your decisions? [Select one on each row.]

		NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a.	The science ideas addressed in the activities I skipped are not included in my pacing guide/standards.	①	②	③
b.	I did not have the materials needed to implement the activities I skipped.	①	②	③
c.	I did not have the knowledge needed to implement the activities I skipped			
d.	The activities I skipped were too difficult for my students.	①	②	③
e.	My students already knew the science ideas or were able to learn them without the activities I skipped.	①	②	③
f.	I have different activities for those science ideas that work better than the ones I skipped.	①	②	③
g.	I did not have enough instructional time for the activities I skipped.	①	②	③

65. ***[Presented only to teachers who did not select "Not at all" for Q63c]***
During this unit, when you supplemented these materials with additional activities, how much was each of the following a factor in your decisions? [Select one on each row.]

		NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a.	My pacing guide indicated that I should use supplemental activities.	①	②	③
b.	Supplemental activities were needed to prepare students for standardized tests.	①	②	③
c.	Supplemental activities were needed to provide students with additional practice.	①	②	③
d.	Supplemental activities were needed so students at different levels of achievement could increase their understanding of the ideas targeted in each activity.	①	②	③
e.	I had additional activities that I liked.	①	②	③

66. ***[Presented only to teachers who did not select "Not at all" in Q63d]***
During this unit, when you modified activities from these materials, how much was each of the following a factor in your decisions? [Select one on each row.]

		NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a.	I did not have the necessary materials/supplies for the original activities.	①	②	③
b.	The original activities were too difficult conceptually for my students.	①	②	③
c.	The original activities were too easy conceptually for my students.	①	②	③
d.	I did not have enough instructional time to implement the activities as designed.	①	②	③
e.	The original activities were too structured for my students.	①	②	③
f.	The original activities were not structured enough for my students.	①	②	③

67. How well prepared did you feel to do each of the following as part of your instruction on this particular unit? [Select one on each row.]

		NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a.	Anticipate difficulties that students may have with particular science ideas and procedures in this unit	①	②	③	④
b.	Find out what students thought or already knew about the key science ideas	①	②	③	④
c.	Implement the instructional materials (for example: textbook, module) to be used during this unit	①	②	③	④
d.	Monitor student understanding during this unit	①	②	③	④
e.	Assess student understanding at the conclusion of this unit	①	②	③	④

Your Most Recent Science Lesson in this Class

The next set of questions refer to the most recent science lesson in this class which you indicated is *[level indicated in Q10] [type indicated in Q9]* and is titled *[title provided in Q11]*, even if it included activities and/or interruptions that are not typical (for example: a test, students working on projects, a fire drill). If the lesson spanned multiple days, please answer for the most recent day.

68. How many minutes was that day's science lesson? Answer for the entire length of the class period, even if there were interruptions. [Enter your response as a non-zero whole number (for example: 50).] _____

69. Of these *[[answer to Q68]]* minutes, how many were spent on the following: [Enter each response as a whole number (for example: 15).]

a.	Non-instructional activities (for example: attendance taking, interruptions)	
b.	Whole class activities (for example: lectures, explanations, discussions)	
c.	Small group work	
d.	Students working individually (for example: reading textbooks, completing worksheets, taking a test or quiz)	

70. Which of the following activities took place during that day's science lesson? [Select all that apply.]

□	Teacher explaining a science idea to the whole class
□	Teacher conducting a demonstration while students watched
□	Whole class discussion
□	Students working in small groups
□	Students completing textbook/worksheet problems
□	Students doing hands-on/laboratory activities
□	Students reading about science
□	Students writing about science (do not include students taking notes)
□	Practicing for standardized tests
□	Test or quiz
□	None of the above

Demographic Information

71. Are you:

○	Female
○	Male
○	Other

72. Are you of Hispanic or Latino origin?

○	Yes
○	No

73. What is your race? [Select all that apply.]

□	American Indian or Alaskan Native
□	Asian
□	Black or African American
□	Native Hawaiian or Other Pacific Islander
□	White

74. In what year were you born? [Enter your response as a whole number (for example: 1969).]

_____

Thank you!

2018 NSSME+
Mathematics Teacher Questionnaire

Teacher Background and Opinions

1. How many years have you taught prior to this school year: [Enter each response as a whole number (for example: 15).]

a.	any subject at the K–12 level?	
b.	mathematics at the K–12 level?	
c.	at this school, any subject?	

2. At what grade levels do you currently teach mathematics? [Select all that apply.]

□	K–5
□	6–8
□	9–12
□	I do not currently teach mathematics.

3. ***[Presented to self-contained teachers only]***
Which best describes the mathematics instruction provided to the entire class?
   - Do not consider pull-out instruction that some students may receive for remediation or enrichment.
   - Do not consider instruction provided to individual or small groups of students, for example by an English-language specialist, special educator, or teacher assistant.

○	This class receives mathematics instruction only from you. ***[Presented only to teachers who answered in Q2 that they teach mathematics]***
○	This class receives mathematics instruction from you and other teachers (for example: a mathematics specialist or a teacher you team with). ***[Presented only to teachers who answered in Q2 that they teach mathematics]***
○	This class receives mathematics instruction only from another teacher (for example: a mathematics specialist or a teacher you team with). [Presented only to teachers who answered in Q2 that they do not currently teach mathematics] ***[Teacher ineligible, exit survey]***
○	This class does not receive mathematics instruction this year. ***[Presented only to teachers who answered in Q2 that they do not currently teach mathematics] [Teacher ineligible, exit survey]***

4. Omitted – Used only for survey routing.

5. ***[Presented to self-contained teachers only]***
Which best describes your mathematics teaching?

○	I teach mathematics all or most days, every week of the year.
○	I teach mathematics every week, but typically three or fewer days each week.
○	I teach mathematics some weeks, but typically not every week.

6. ***[Presented to self-contained teachers only]***
Which best describes your science teaching?

○	I teach science all or most days, every week of the year.
○	I teach science every week, but typically three or fewer days each week.
○	I teach science some weeks, but typically not every week. ***[Skip to Q8]***
○	I do not teach science.

7. ***[Presented to self-contained teachers only]***
In a typical week, how many days do you teach lessons on each of the following subjects and how many minutes per week are spent on each subject? [Enter each response as a whole number (for example: 5, 150).]

	NUMBER OF DAYS PER WEEK	TOTAL NUMBER OF MINUTES PER WEEK
a. Mathematics		
b. Science		
c. Social Studies		
d. Reading/Language Arts		

8. ***[Presented to self-contained teachers who skipped Q7 only]***
In a typical year, how many weeks do you teach lessons on each of the following subjects and how many minutes per week are spent on each subject? [Enter each response as a whole number (for example: 36, 150).]

	NUMBER OF WEEKS PER YEAR	AVERAGE NUMBER OF MINUTES PER WEEK WHEN TAUGHT
a. Mathematics		
b. Science		
c. Social Studies		
d. Reading/Language Arts		

9. ***[Presented to non-self-contained teachers only]***
In a typical week, how many different mathematics classes (sections) are you currently teaching?
- If you meet with the *same class of students* multiple times per week, count that class only once.
- If you teach the *same mathematics course* to multiple classes of students, count each class separately.

1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○

10. ***[Presented to non-self-contained teachers only]***

For each mathematics class you currently teach, select the course type and enter the number of students enrolled. Enter the classes in the order that you teach them. For teachers on an alternating day block schedule, please order your classes starting with the first class you teach this week. Select one course type on each row and enter the number of students as a whole number (for example: 25).]

GRADES 9–12 COURSE TYPE	EXAMPLE COURSES
Non-college prep mathematics courses	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
Formal/College prep mathematics level 1 courses	Algebra 1; Math 1; Integrated/Unified Math I; Algebra 1 Part 2; Algebra 1B; Math B
Formal/College prep mathematics level 2 courses	Geometry; Plane Geometry; Solid Geometry; Math 2; Integrated/Unified Math II; Math C
Formal/College prep mathematics level 3 courses	Algebra 2; Intermediate Algebra; Algebra and Trigonometry; Advanced Algebra; Math 3; Integrated/Unified Math III
Formal/College prep mathematics level 4 courses	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/Math 3 as a prerequisite
Mathematics courses that might qualify for college credit	Advanced Placement Calculus (AB, BC); Advanced Placement Statistics; IB Mathematics Standard Level; IB Mathematics Higher Level; concurrent college and high school credit/dual enrollment

CLASS	COURSE TYPE	NUMBER OF STUDENTS ENROLLED
Your 1st mathematics class:		
Your 2nd mathematics class:		
…		
Your 10th mathematics class:		

COURSE TYPE LIST	
1	Mathematics (Grades K–5)
2	Remedial Mathematics 6
3	Regular Mathematics 6
4	Accelerated/Pre-Algebra Mathematics 6
5	Remedial Mathematics 7
6	Regular Mathematics 7
7	Accelerated Mathematics 7
8	Remedial Mathematics 8
9	Regular Mathematics 8
10	Accelerated Mathematics 8
11	Algebra 1, Grade 7 or 8
12	Non-college prep mathematics course (Grades 9–12)
13	Formal/College prep mathematics level 1 course (Grades 9–12)
14	Formal/College prep mathematics level 2 course (Grades 9–12)
15	Formal/College prep mathematics level 3 course (Grades 9–12)
16	Formal/College prep mathematics level 4 course (Grades 9–12)
17	Mathematics course that might qualify for college credit (Grades 9–12)

11. ***[Presented to non-self-contained teachers only]***
Later in this questionnaire, we will ask you questions about your *[[xth]]* mathematics class, which you indicated was *[[type indicated in Q10]]*. What is your school's title for this course? _____

12. Have you been awarded one or more bachelor's and/or graduate degrees in the following fields? (With regard to bachelor's degrees, count only areas in which you majored. Do not include endorsements or certificates.) [Select one on each row.]

		YES	NO
a.	Education (general or subject specific such as mathematics education)	○	○
b.	Mathematics	○	○
c.	Statistics	○	○
d.	Computer Science	○	○
e.	Engineering	○	○
f.	Other, please specify._____	○	○

13. ***[Presented only to teachers that selected "Yes" for Q12a]***
What type of education degree do you have? (With regard to bachelor's degrees, count only areas in which you majored.) [Select all that apply.]

□	Elementary Education
□	Mathematics Education
□	Science Education
□	Other education, please specify. _____

14. Did you complete any of the following mathematics courses at the undergraduate or graduate level? [Select one on each row.]

		YES	NO
a.	Mathematics content for elementary school teachers	○	○
b.	Mathematics content for middle school teachers	○	○
c.	Mathematics content for high school teachers	○	○
d.	Integrated mathematics (a single course that addresses content across ***multiple*** mathematics subjects, such as algebra and geometry)	○	○
e.	College algebra/trigonometry/functions	○	○
f.	Abstract algebra (for example: groups, rings, ideals, fields) ***[Presented to grades 6–12 teachers only]***	○	○
g.	Linear algebra (for example: vectors, matrices, eigenvalues) ***[Presented to grades 6–12 teachers only]***	○	○
h.	Calculus	○	○
i.	Advanced calculus ***[Presented to grades 6–12 teachers only]***	○	○
j.	Real analysis ***[Presented to grades 6–12 teachers only]***	○	○
k.	Differential equations ***[Presented to grades 6–12 teachers only]***	○	○
l.	Analytic/Coordinate Geometry (for example: transformations or isometries, conic sections) ***[Presented to grades 6–12 teachers only]***	○	○
m.	Axiomatic Geometry (Euclidean or non-Euclidean) ***[Presented to grades 6–12 teachers only]***	○	○
n.	College geometry ***[Presented to grades K–5 teachers only]***	○	○
o.	Probability	○	○
p.	Statistics	○	○
q.	Number theory (for example: divisibility theorems, properties of prime numbers) ***[Presented to grades 6–12 teachers only]***	○	○
r.	Discrete mathematics (for example: combinatorics, graph theory, game theory)	○	○
s.	Other upper division mathematics	○	○

15. Did you complete one or more courses in each of the following areas at the undergraduate or graduate level? [Select one on each row.]

		YES	NO
a.	Computer science	○	○
b.	Engineering	○	○

16. Which of the following best describes the program you completed to earn your teaching credential (sometimes called certification or license)?

○	An undergraduate program leading to a bachelor's degree and a teaching credential
○	A post-baccalaureate credentialing program (no master's degree awarded)
○	A master's program that also led to a teaching credential
○	I have not completed a program to earn a teaching credential.

17. After completing your undergraduate degree and prior to becoming a teacher, did you have a full-time job in a mathematics-related field (for example: accounting, engineering, computer programming)?

o	Yes
o	No

Professional Development

The questions in this section ask about your participation in professional development focused on mathematics or mathematics teaching. When answering these questions, please include:

- face-to-face and/or online courses;
- professional meetings/conferences;
- workshops;
- professional learning communities/lesson studies/teacher study groups; and
- coaching and mentoring.

Do not include:

- courses you took prior to becoming a teacher; and
- time spent providing professional development (including coaching and mentoring) for other teachers.

18. When did you **last participate** in professional development focused on mathematics or mathematics teaching?

○	In the last 12 months
○	1–3 years ago
○	4–6 years ago
○	7–10 years ago
○	More than 10 years ago
○	Never

} *Skip to Q23*

19. **In the last 3 years,** which of the following types of professional development related to mathematics or mathematics teaching have you had? [Select one on each row.]

		YES	NO
a.	I attended a professional development program/workshop.	○	○
b.	I attended a national, state, or regional mathematics teacher association meeting.	○	○
c.	I completed an online course/webinar.	○	○
d.	I participated in a professional learning community/lesson study/teacher study group.	○	○
e.	I received assistance or feedback from a formally designated coach/mentor.	○	○
f.	I took a formal course for college credit.	○	○

20. What is the **total** amount of time you have spent on professional development related to mathematics or mathematics teaching **in the last 3 years**?

○	Less than 6 hours
○	6–15 hours
○	16–35 hours
○	36–80 hours
○	More than 80 hours

21. Considering all of your mathematics-related professional development **in the last 3 years**, to what extent does each of the following describe your experiences? [Select one on each row.]

		NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a.	I had opportunities to engage in mathematics investigations.	①	②	③	④	⑤
b.	I had opportunities to experience lessons, as my students would, from the textbook/units I use in my classroom.	①	②	③	④	⑤
c.	I had opportunities to examine classroom artifacts (for example: student work samples, videos of classroom instruction).	①	②	③	④	⑤
d.	I had opportunities to rehearse instructional practices during the professional development (meaning: try out, receive feedback, and reflect on those practices).	①	②	③	④	⑤
e.	I had opportunities to apply what I learned to my classroom and then come back and talk about it as part of the professional development.	①	②	③	④	⑤
f.	I worked closely with other teachers from my school.	①	②	③	④	⑤
g.	I worked closely with other teachers who taught the same grade and/or subject whether or not they were from my school.	①	②	③	④	⑤

22. Thinking about all of your mathematics-related professional development **in the last 3 years**, to what extent was each of the following emphasized? [Select one on each row.]

		NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a.	Deepening your own mathematics content knowledge	①	②	③	④	⑤
b.	Deepening your 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.	Implementing the mathematics textbook to be used in your classroom	①	②	③	④	⑤
d.	Learning how to use hands-on activities/manipulatives for mathematics instruction	①	②	③	④	⑤
e.	Learning about difficulties that students may have with particular mathematical ideas and procedures	①	②	③	④	⑤
f.	Finding out what students think or already know prior to instruction on a topic	①	②	③	④	⑤
g.	Monitoring student understanding during mathematics instruction	①	②	③	④	⑤
h.	Differentiating mathematics instruction to meet the needs of diverse learners	①	②	③	④	⑤
i.	Incorporating students' cultural backgrounds into mathematics instruction	①	②	③	④	⑤
j.	Learning how to provide mathematics instruction that integrates engineering, science, and/or computer science	①	②	③	④	⑤

Preparedness to Teach Mathematics

23. ***[Presented to self-contained teachers only]***

Many teachers feel better prepared to teach some subject areas than others. How well prepared 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 teaching responsibilities? [Select one on each row.]

	NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a. Number and Operations	①	②	③	④
b. Early Algebra	①	②	③	④
c. Geometry	①	②	③	④
d. Measurement and Data Representation	①	②	③	④
e. Science	①	②	③	④
f. Computer science/Programming	①	②	③	④
g. Reading/Language Arts	①	②	③	④
h. Social Studies	①	②	③	④

24. ***[Presented to non-self-contained teachers only]***

Within mathematics, many teachers feel better prepared to teach some topics than others. How prepared do you feel to teach each of the following topics **at the grade level(s) you teach**, whether or not they are currently included in your teaching responsibilities? [Select one on each row.]

	NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a. The number system and operations	①	②	③	④
b. Algebraic thinking	①	②	③	④
c. Functions	①	②	③	④
d. Modeling	①	②	③	④
e. Measurement	①	②	③	④
f. Geometry	①	②	③	④
g. Statistics and probability	①	②	③	④
h. Discrete mathematics	①	②	③	④
i. Computer science/programming	①	②	③	④

25. How well prepared do you feel to do each of the following in your mathematics instruction? [Select one on each row.]

	NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a. Develop students' conceptual understanding of the mathematical ideas you teach	①	②	③	④
b. Develop students' abilities to do mathematics (for example: consider how to approach a problem, explain and justify solutions, create and use mathematical models)	①	②	③	④
c. Develop students' awareness of STEM careers	①	②	③	④
d. Provide mathematics instruction that is based on students' ideas (whether completely correct or not) about the topics you teach	①	②	③	④
e. Use formative assessment to monitor student learning	①	②	③	④
f. Differentiate mathematics instruction to meet the needs of diverse learners	①	②	③	④
g. Incorporate students' cultural backgrounds into mathematics instruction	①	②	③	④
h. Encourage students' interest in mathematics	①	②	③	④
i. Encourage participation of all students in mathematics	①	②	③	④

Opinions about Mathematics Instruction

26. Please provide your opinion about each of the following statements. [Select one on each row.]

	STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
a. Students learn mathematics best in classes with students of similar abilities.	①	②	③	④	⑤
b. It is better for mathematics instruction to focus on ideas in depth, even if that means covering fewer topics.	①	②	③	④	⑤
c. At the beginning of instruction on a mathematical idea, students should be provided with definitions for new mathematics vocabulary that will be used.	①	②	③	④	⑤
d. Teachers should explain an idea to students before having them investigate the idea.	①	②	③	④	⑤
e. Most class periods should provide opportunities for students to share their thinking and reasoning.	①	②	③	④	⑤
f. Hands-on activities/manipulatives should be used primarily to reinforce a mathematical idea that the students have already learned.	①	②	③	④	⑤
g. Teachers should ask students to justify their mathematical thinking.	①	②	③	④	⑤
h. Students learn best when instruction is connected to their everyday lives.	①	②	③	④	⑤
i. Most class periods should provide opportunities for students to apply mathematical ideas to real-world contexts.	①	②	③	④	⑤
j. Students should learn mathematics by doing mathematics (for example: considering how to approach a problem, explaining and justifying solutions, creating and using mathematical models).	①	②	③	④	⑤

Leadership Experiences

27. **In the last 3 years** have you… [Select one on each row.]

	YES	NO
a. Served as a lead teacher or department chair in mathematics?	○	○
b. Served as a ***formal*** mentor or coach for a mathematics teacher? (Do not include supervision of student teachers.)	○	○
c. Supervised a student teacher in your classroom?	○	○
d. Served on a school or district/diocese-wide mathematics committee (for example: developing curriculum, developing pacing guides, selecting instructional materials)?	○	○
e. Led or co-led a workshop or professional learning community (for example: teacher study group, lesson study) for other teachers focused on mathematics or mathematics teaching?	○	○
f. Taught a mathematics lesson for other teachers in your school to observe?	○	○
g. Observed another teacher's mathematics lesson for the purpose of giving him/her feedback?	○	○

Your Mathematics Instruction

The rest of this questionnaire is about your *[[xth]]* mathematics class, which you indicated was *[[type indicated in Q10]]* and is titled *[[title provided in Q11]]*. ***[Instructions presented to non-self-contained teachers only]***

The rest of this questionnaire is about your mathematics instruction in this class. ***[Instructions presented to self-contained teachers only]***

28. ***[Presented to non-self-contained teachers only]***
On average, how many minutes per week does this class meet? [Enter your response as a whole number (for example: 300).] _____

29. Enter the number of students for each grade represented in this class. [Enter each response as a whole number (for example: 15).]

Kindergarten	
1st grade	
2nd grade	
3rd grade	
4th grade	
5th grade	
6th grade	
7th grade	
8th grade	
9th grade	
10th grade	
11th grade	
12th grade	

30. For the *[[sum of Q29]]* students in this class, indicate the number of males and females in each of the following categories of race/ethnicity. [Enter each response as a whole number (for example: 15).]

	MALES	FEMALES
a. American Indian or Alaskan Native		
b. Asian		
c. Black or African American		
d. Hispanic or Latino		
e. Native Hawaiian or Other Pacific Islander		
f. White		
g. Two or more races		

31. Which of the following best describes the prior mathematics achievement levels of the students in this class relative to other students in this school?

○	Mostly low achievers
○	Mostly average achievers
○	Mostly high achievers
○	A mixture of levels

32. How much control do you have over each of the following for mathematics instruction in this class? [Select one on each row.]

		NO CONTROL		MODERATE CONTROL		STRONG CONTROL
a.	Determining course goals and objectives	①	②	③	④	⑤
b.	Selecting curriculum materials (for example: textbooks)	①	②	③	④	⑤
c.	Selecting content, topics, and skills to be taught	①	②	③	④	⑤
d.	Selecting the sequence in which topics are covered	①	②	③	④	⑤
e.	Determining the amount of instructional time to spend on each topic	①	②	③	④	⑤
f.	Selecting teaching techniques	①	②	③	④	⑤
g.	Determining the amount of homework to be assigned	①	②	③	④	⑤
h.	Choosing criteria for grading student performance	①	②	③	④	⑤

33. Think about your plans for this class for the entire course/year. By the end of the course/ year, how much emphasis will each of the following student objectives receive? [Select one on each row.]

		NONE	MINIMAL EMPHASIS	MODERATE EMPHASIS	HEAVY EMPHASIS
a.	Learning mathematics vocabulary	①	②	③	④
b.	Learning mathematical procedures and/or algorithms	①	②	③	④
c.	Learning to perform computations with speed and accuracy	①	②	③	④
d.	Understanding mathematical ideas	①	②	③	④
e.	Learning how to do mathematics (for example: consider how to approach a problem, explain and justify solutions, create and use mathematical models)	①	②	③	④
f.	Learning about real-life applications of mathematics	①	②	③	④
g.	Increasing students' interest in mathematics	①	②	③	④
h.	Developing students' confidence that they can successfully pursue careers in mathematics	①	②	③	④
i.	Learning test-taking skills/strategies	①	②	③	④

34. How often do **you** do each of the following in your mathematics instruction in this class? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL MATHEMATICS LESSONS
a. Explain mathematical ideas to the whole class	①	②	③	④	⑤
b. Engage the whole class in discussions	①	②	③	④	⑤
c. Have students work in small groups	①	②	③	④	⑤
d. Provide manipulatives for students to use in problem-solving/investigations	①	②	③	④	⑤
e. Use flipped instruction (have students watch lectures/ demonstrations outside of class to prepare for in-class activities)	①	②	③	④	⑤
f. Have students read from a textbook or other material in class, either aloud or to themselves	①	②	③	④	⑤
g. Have students write their reflections (for example: in their journals, on exit tickets) in class or for homework	①	②	③	④	⑤
h. Focus on literacy skills (for example: informational reading or writing strategies)	①	②	③	④	⑤
i. Have students practice for standardized tests	①	②	③	④	⑤

35. How often do you have **students** do each of the following during mathematics instruction in this class? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL MATHEMATICS LESSONS
a. Work on challenging problems that require thinking beyond just applying rules, algorithms, or procedures	①	②	③	④	⑤
b. Figure out what a challenging problem is asking (by talking with their classmates and/or using manipulatives, pictures, diagrams, tables, or equations)	①	②	③	④	⑤
c. Reflect on their solution strategies as they work through a mathematics problem and revise as needed	①	②	③	④	⑤
d. Continue working through a mathematics problem when they reach points of difficulty, challenge, or error	①	②	③	④	⑤
e. Determine whether their answer makes sense (for example: the answer has reasonable magnitude or sign, uses appropriate units, fits the context of the problem)	①	②	③	④	⑤
f. Represent aspects of a problem using mathematical symbols, pictures, diagrams, tables, or objects in order to solve it	①	②	③	④	⑤
g. Provide mathematical reasoning to explain, justify, or prove their thinking	①	②	③	④	⑤
h. Compare and contrast different solution strategies for a mathematics problem in terms of their strengths and limitations (for example: their efficiency, generalizability, interpretability by others)	①	②	③	④	⑤
i. Analyze the mathematical reasoning of others (for example: decide if their reasoning makes sense, identify correct ideas or flaws in their thinking)	①	②	③	④	⑤
j. Pose questions to clarify, challenge, or improve the mathematical reasoning of others	①	②	③	④	⑤

k.	Identify relevant information and relationships that could be used to solve a mathematics problem (for example: quantities and relationships needed to develop an equation that illustrates a situation or determines an outcome)	①	②	③	④	⑤
l.	Develop a mathematical model (meaning, a representation of relevant information and relationships such as an equation, tape diagram, algorithm, or function) to solve a mathematics problem	①	②	③	④	⑤
m.	Determine what tools (for example: pencil and paper, manipulatives, ruler, protractor, calculator, spreadsheet) are appropriate for solving a mathematics problem	①	②	③	④	⑤
n.	Determine what units are appropriate for expressing numerical answers, data, and/or measurements	①	②	③	④	⑤
o.	Discuss how certain terms or phrases may have specific meanings in mathematics that are different from their meaning in everyday language	①	②	③	④	⑤
p.	Identify patterns or characteristics of numbers, diagrams, or graphs that may be helpful in solving a mathematics problem	①	②	③	④	⑤
q.	Work on generating a rule or formula (for example: based on multiple problems, patterns, or repeated calculations)	①	②	③	④	⑤

36. Thinking about your instruction in this class over the entire year, about how often do you have students use coding to develop or revise computer programs as part of your mathematics instruction (for example: use Scratch or Python as part of doing mathematics)?

o	Never
o	Rarely (for example: A few times per year)
o	Sometimes (for example: Once or twice a month)
o	Often (for example: Once or twice a week)
o	All or almost all mathematics lessons

37. In a typical week, how much time outside of this class are students expected to spend on mathematics assignments?

○	None
○	1–15 minutes per week
○	16–30 minutes per week
○	31–60 minutes per week
○	61–90 minutes per week
○	91–120 minutes per week
○	More than 2 hours per week

38. How often are students in this class required to take mathematics tests that you did not choose to administer, for example state assessments or district benchmarks? Do not include Advanced Placement or International Baccalaureate exams or students retaking a test because of failure.

○	Never
○	Once a year
○	Twice a year
○	Three or four times a year
○	Five or more times a year

39. Please indicate the availability of projection devices (for example: Smartboard, document camera, LCD projector) for your mathematics instruction in this class.

○	Always available in your classroom
○	Available upon request
○	Not available

40. Mathematics courses may benefit from the availability of particular resources. Considering what you have available, how adequate is each of the following for teaching this mathematics class? [Select one on each row.]

		NOT ADEQUATE		SOMEWHAT ADEQUATE		ADEQUATE
a.	Instructional technology (for example: calculators, computers, probes/sensors)	①	②	③	④	⑤
b.	Measurement tools (for example: protractors, rulers)	①	②	③	④	⑤
c.	Manipulatives (for example: pattern blocks, algebra tiles)	①	②	③	④	⑤
d.	Consumable supplies (for example: graphing paper, batteries)	①	②	③	④	⑤

This item asks about different types of instructional materials; please read the entire list of materials before answering

41. Thinking about your instruction in this class over the entire year, about how often is instruction based on materials from each of the following sources? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL MATHEMATICS LESSONS
a. Commercially published textbooks (printed or electronic), including the supplementary materials (for example: worksheets) that accompany the textbooks	①	②	③	④	⑤
b. State, county, or district/diocese-developed units or lessons	①	②	③	④	⑤
c. Online units or courses that students work through at their own pace (for example: i-Ready, Edgenuity)	①	②	③	④	⑤
d. Lessons or resources from websites that have a subscription fee or per lesson cost (for example: BrainPOP, Discovery Ed, Teachers Pay Teachers)	①	②	③	④	⑤
e. Lessons or resources from websites that are free (for example: Khan Academy, Illustrative Math)	①	②	③	④	⑤
f. Units or lessons you created (either by yourself or with others)	①	②	③	④	⑤
g. Units or lessons you collected from any other source (for example: conferences, journals, colleagues, university or museum partners)	①	②	③	④	⑤

42. Does your school/district/diocese designate instructional materials (textbooks, units, or lessons) to be used in this class?

○	Yes
○	No *[Skip to Q44]*

43. Which of the following types of instructional materials does your school/district/diocese designate to be used in this class? [Select all that apply.]

□	Commercially published textbooks (printed or electronic), including the supplementary materials (for example: worksheets) that accompany the textbooks
□	State, county, or district/diocese-developed instructional materials
□	Online units or courses that students work through at their own pace (for example: i-Ready, Edgenuity)
□	Lessons or resources from websites that have a subscription fee or per lesson cost (for example: BrainPOP, Discovery Ed, Teachers Pay Teachers)
□	Lessons or resources from websites that are free (for example: Khan Academy, Illustrative Math)

44. Omitted – Used only for survey routing.

45. ***[Presented only to teachers who selected "Sometimes" "Often" or "All" for Q41a or c]***
[Version for teachers who indicate using a commercial textbook most often] Please indicate the title, author, most recent copyright year, and ISBN code of the commercially published textbook (printed or electronic) used most often by the students in this class.

- The 10- or 13-character ISBN code can be found on the copyright page and/or the back cover of the textbook.
- Do not include the dashes when entering the ISBN.

  Example ISBN:

[Version for teachers who indicate using an online course most often] Please indicate the title and URL of the online units or courses used most often by the students in this class.

Title:	
First Author: [for teachers who indicate using a commercial textbook most often]	
Year: [for teachers who indicate using a commercial textbook most often]	
ISBN: [for teachers who indicate using a commercial textbook most often]	
URL: [for teachers who indicate using an online program most often]	

46. Please rate how each of the following affects your mathematics instruction in this class. [Select one on each row.]

		INHIBITS EFFECTIVE INSTRUCTION		NEUTRAL OR MIXED		PROMOTES EFFECTIVE INSTRUCTION	N/A
a.	Current state standards	①	②	③	④	⑤	○
b.	District/Diocese and/or school pacing guides	①	②	③	④	⑤	○
c.	State/district/diocese testing/ accountability policies ***[Not presented to non-Catholic private schools]***	①	②	③	④	⑤	○
d.	Textbook selection policies	①	②	③	④	⑤	○
e.	Teacher evaluation policies	①	②	③	④	⑤	○
f.	College entrance requirements ***[Presented to grades 9–12 teachers only]***	①	②	③	④	⑤	○
g.	Students' prior knowledge and skills	①	②	③	④	⑤	○
h.	Students' motivation, interest, and effort in mathematics	①	②	③	④	⑤	○
i.	Parent/guardian expectations and involvement	①	②	③	④	⑤	○
j.	Principal support	①	②	③	④	⑤	○
k.	Amount of time for you to plan, individually and with colleagues	①	②	③	④	⑤	○
l.	Amount of time available for your professional development	①	②	③	④	⑤	○
m.	Amount of instructional time devoted to mathematics ***[Presented to grades K–5 teachers only]***	①	②	③	④	⑤	○

Your Most Recently Completed Mathematics Unit in this Class

The questions in this section are about the most recently completed mathematics unit in this class which you indicated is *[type indicated in Q10]* and is titled *[title provided in Q11]*.

- Depending on the structure of your class and the instructional materials you use, a unit may range from a few to many class periods.
- Do not be concerned if this unit was not typical of your instruction.

47. Which one of the following best describes the content focus of this unit?

○	Number and operations
○	Measurement and data representation
○	Algebra
○	Geometry
○	Probability
○	Statistics
○	Trigonometry
○	Calculus

48. ***[Presented only to teachers who selected "Sometimes" "Often" or "All" for Q41 a or b]***
Was this unit based primarily on a commercially published textbook or state, county, or district/diocese-developed materials?

○	Yes
○	No ***[Skip to Q53]***

This next set of items is about the textbook or state, county, or district/diocese-developed lessons you used in this unit.

49. Please indicate the extent to which you did each of the following while teaching this unit. [Select one on each row.]

		NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a.	I used these materials to guide the structure and content emphasis of the unit.	①	②	③	④	⑤
b.	I picked what is important from these materials and skipped the rest.	①	②	③	④	⑤
c.	I incorporated activities (for example: problems, investigations, readings) from other sources to supplement what these materials were lacking.	①	②	③	④	⑤
d.	I modified activities from these materials.	①	②	③	④	⑤

50. ***[Presented only to teachers who did not select "Not at all" for Q49b]***
During this unit, when you skipped activities (for example: problems, investigations, readings) in these materials, how much was each of the following a factor in your decisions? [Select one on each row.]

		NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a.	The mathematical ideas addressed in the activities I skipped are not included in my pacing guide/standards.	①	②	③
b.	I did not have the materials needed to implement the activities I skipped.	①	②	③
c.	I did not have the knowledge needed to implement the activities I skipped.	①	②	③
d.	The activities I skipped were too difficult for my students.	①	②	③
e.	My students already knew the mathematical ideas or were able to learn them without the activities I skipped.	①	②	③
f.	I have different activities for those mathematical ideas that work better than the ones I skipped.	①	②	③
g.	I did not have enough instructional time for the activities I skipped.	①	②	③

51. ***[Presented only to teachers who did not select "Not at all" for Q49c]***
During this unit, when you supplemented these materials with additional activities, how much was each of the following a factor in your decisions? [Select one on each row.]

		NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a.	My pacing guide indicated that I should use supplemental activities.	①	②	③
b.	Supplemental activities were needed to prepare students for standardized tests.	①	②	③
c.	Supplemental activities were needed to provide students with additional practice.	①	②	③
d.	Supplemental activities were needed so students at different levels of achievement could increase their understanding of the ideas targeted in each activity.	①	②	③
e.	I had additional activities that I liked.	①	②	③

52. ***[Presented only to teachers who did not select "Not at all" in Q49d]***
During this unit, when you modified activities from these materials, how much was each of the following a factor in your decisions? [Select one on each row.]

		NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a.	I did not have the necessary materials/supplies for the original activities.	①	②	③
b.	The original activities were too difficult conceptually for my students.	①	②	③
c.	The original activities were too easy conceptually for my students.	①	②	③
d.	I did not have enough instructional time to implement the activities as designed.	①	②	③
e.	The original activities were too structured for my students.	①	②	③
f.	The original activities were not structured enough for my students.	①	②	③

53. How well prepared did you feel to do each of the following as part of your instruction on this particular unit? [Select one on each row.]

		NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a.	Anticipate difficulties that students may have with particular mathematical ideas and procedures in this unit	○	○	○	○
b.	Find out what students thought or already knew about the key mathematical ideas	○	○	○	○
c.	Implement the instructional materials (for example: mathematics textbook) to be used during this unit	○	○	○	○
d.	Monitor student understanding during this unit	○	○	○	○
e.	Assess student understanding at the conclusion of this unit	○	○	○	○

Your Most Recent Mathematics Lesson in this Class

The next three questions refer to the most recent mathematics lesson in this class, which you indicated is *[type indicated in Q10]* and is titled *[title provided in Q11]*, even if it included activities and/or interruptions that are not typical (for example: a test, students working on projects, a fire drill). If the lesson spanned multiple days, please answer for the most recent day.

54. How many minutes was that day's mathematics lesson? Answer for the entire length of the class period, even if there were interruptions. [Enter your response as a non-zero whole number (for example: 50).] _____

55. Of these *[answer to Q54]* minutes, how many were spent on the following: [Enter each response as a whole number (for example: 15).]

a.	Non-instructional activities (for example: attendance taking, interruptions)	
b.	Whole class activities (for example: lectures, explanations, discussions)	
c.	Small group work	
d.	Students working individually (for example: reading textbooks, completing worksheets, taking a test or quiz)	

56. Which of the following activities took place during that day's mathematics lesson? [Select all that apply.]

□	Teacher explaining a mathematical idea to the whole class
□	Teacher conducting a demonstration while students watched
□	Whole class discussion
□	Students working in small groups
□	Students completing textbook/worksheet problems
□	Students doing hands-on/manipulative activities
□	Students reading about mathematics
□	Students writing about mathematics (do not include students taking notes)
□	Practicing for standardized tests
□	Test or quiz
□	None of the above

Demographic Information

57. Are you:

○	Female
○	Male
○	Other

58. Are you of Hispanic or Latino origin?

○	Yes
○	No

59. What is your race? [Select all that apply.]

□	American Indian or Alaskan Native
□	Asian
□	Black or African American
□	Native Hawaiian or Other Pacific Islander
□	White

60. In what year were you born? [Enter your response as a whole number (for example: 1969).]
_____

Thank you!

2018 NSSME+

High School Computer Science Teacher Questionnaire

Teacher Background and Opinions

1. How many years have you taught prior to this school year: [Enter each response as a whole number (for example: 15).]

a.	any subject at the K–12 level?	
b.	computer science at the K–12 level?	
c.	at this school, any subject?	

2. At what grade levels do you currently teach computer science? [Select all that apply.]

□	K–5
□	6–8
□	9–12
□	I do not currently teach computer science. *[Teacher ineligible, exit survey]*

3. Omitted – Used only for survey routing.

4. In a typical week, how many different computer science classes (sections) are you currently teaching?
   - If you meet with the *same class of students* multiple times per week, count that class only once.
   - If you teach the *same computer science course* to multiple classes of students, count each class separately.

1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○

5. For each computer science class you currently teach, select the course type and enter the number of students enrolled. Enter the classes in the order that you teach them. For teachers on an alternating day block schedule, please order your classes starting with the first class you teach this week. [Select one course type on each row and enter the number of students as a whole number (for example: 25).]

GRADES 9–12 COURSE TYPE	EXAMPLE COURSES
Computer technology courses that do not include programming	Computer literacy; Keyboarding; Media technology (digital video/audio, multimedia presentations, digital arts); Desktop publishing; Computer applications (word processing, spreadsheets, slide presentations); Computer repair and computer networking; Web design; Computer-aided design (architectural drawing, fashion design)
Introductory high school computer science courses that include programming	Computer Science Discoveries such as code.org; Exploring computer science; Computer Science Essentials such as PLTW; Introductory Programming; IB Computer Science Standard Level
Computer science courses that might qualify for college credit	AP Computer Science A; AP Computer Science Principles; IB Computer Science Higher Level
Specialized/elective computer science courses with programming as a prerequisite	Advanced Computer science electives such as Robotics; Game or mobile app development; or other advanced computer science elective with programming as a prerequisite

CLASS	COURSE TYPE	NUMBER OF STUDENTS ENROLLED
Your 1st computer science class:		
Your 2nd computer science class:		
…		
Your 10th computer science class:		

COURSE TYPE LIST	
1	Computer technology courses that do not include programming
2	Introductory high school computer science courses that include programming
3	Computer science courses that might qualify for college credit
4	Specialized/elective computer science courses with programming as a prerequisite

6. Later in this questionnaire, we will ask you questions about your *[[xth]]* computer science class, which you indicated was *[[course type indicated in Q5]]*. What is your school's title for this course? _____

7. Have you been awarded one or more bachelor's and/or graduate degrees in the following fields? (With regard to bachelor's degrees, count only areas in which you majored. Do not include endorsements or certificates.) [Select one on each row.]

		YES	NO
a.	Business	○	○
b.	Computer science	○	○
c.	Education (general or subject specific such as computer science education)	○	○
d.	Information science	○	○
e.	Mathematics	○	○
f.	Natural sciences (for example: Biology, Chemistry, Physics, Earth Sciences)	○	○
g.	Computer engineering	○	○
h.	Electrical engineering	○	○
i.	Other engineering	○	○
j.	Other, please specify._____	○	○

8. ***[Presented only to teachers that selected "Yes" for Q7c]***
What type of education degree do you have? (With regard to bachelor's degrees, count only areas in which you majored.) [Select all that apply.]

□	Computer Science Education
□	Elementary Education
□	Mathematics Education
□	Science Education
□	Other education, please specify. _____

9. Did you complete one or more computer science courses in each of the following areas at the undergraduate or graduate level? [Select one on each row.]

		YES	NO
a.	Introduction to computer science	○	○
b.	Introduction to programming	○	○
c.	Algorithms (for example: sorting; search trees, heaps, and hashing; divide-and-conquer)	○	○
d.	Artificial intelligence (for example: machine learning, robotics, computer vision)	○	○
e.	Computer graphics (for example: ray tracing, the graphics pipeline, transformations, texture mapping)	○	○
f.	Computer networks (for example: application layer protocols, Internet protocols, network interfaces)	○	○
g.	Database systems (for example: the relational model, relational algebra, SQL)	○	○
h.	Human-computer interaction (for example: human information processing subsystems; libraries of standard graphical user interface objects; methodologies to measure the usability of software)	○	○
i.	Operating systems/computer systems	○	○
j.	Software design/engineering	○	○
k.	Other upper division computer science	○	○

10. Did you complete the following mathematics courses at the undergraduate or graduate level? [Select one on each row.]

		YES	NO
a.	Linear algebra	○	○
b.	Probability	○	○
c.	Statistics	○	○
d.	Number theory (for example: divisibility theorems, properties of prime numbers)	○	○
e.	Discrete mathematics (for example: combinatorics, graph theory, game theory)	○	○

11. Did you complete courses in each of the following areas at the undergraduate or graduate level? [Select one on each row.]

		YES	NO
a.	Computer engineering	○	○
b.	Electrical/Electronics engineering	○	○
c.	Other types of engineering courses	○	○

12. Which of the following best describes the program you completed to earn your teaching credential (sometimes called certification or license)?

○	An undergraduate program leading to a bachelor's degree and a teaching credential
○	A post-baccalaureate credentialing program (no master's degree awarded)
○	A master's program that also led to a teaching credential
○	I have not completed a program to earn a teaching credential. ***[Skip to Q14]***

13. In which of the following areas are you certified (have a credential or endorsement) to teach at the high school level? [Select all that apply.]

□	Business
□	Computer science
□	Engineering
□	Mathematics
□	Science (any area)
□	Other

14. After completing your undergraduate degree and prior to becoming a teacher, did you have a full-time job that included computer programming or computer/software engineering?

o	Yes
o	No

Professional Development

The questions in this section ask about your participation in professional development focused on computer science or computer science teaching. When answering these questions, please include:

- face-to-face and/or online courses;
- professional meetings/conferences;
- workshops;
- professional learning communities/lesson studies/teacher study groups; and
- coaching and mentoring.

Do not include:

- courses you took prior to becoming a teacher; and
- time spent providing professional development (including coaching and mentoring) for other teachers.

15. When did you **last participate** in professional development focused on computer science or computer science teaching?

○	In the last 12 months
○	1–3 years ago
○	4–6 years ago
○	7–10 years ago
○	More than 10 years ago
○	Never

} *[Skip to Q20]*

16. **In the last 3 years,** which of the following types of professional development related to computer science or computer science teaching have you had? [Select one on each row.]

		YES	NO
a.	I attended a professional development program/workshop.	○	○
b.	I attended a national, state, or regional computer science teacher association meeting.	○	○
c.	I completed an online course/webinar.	○	○
d.	I participated in a professional learning community/lesson study/teacher study group.	○	○
e.	I received assistance or feedback from a formally designated coach/mentor.	○	○
f.	I took a formal course for college credit.	○	○

17. What is the **total** amount of time you have spent on professional development related to computer science or computer science teaching **in the last 3 years**?

○	Less than 6 hours
○	6–15 hours
○	16–35 hours
○	36–80 hours
○	More than 80 hours

18. Considering all of your computer science-related professional development **in the last 3 years**, to what extent does each of the following describe your experiences? [Select one on each row.]

		NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a.	I had opportunities to engage in activities to learn computer science content.	①	②	③	④	⑤
b.	I had opportunities to experience lessons, as my students would, from the textbook/units I use in my classroom.	①	②	③	④	⑤
c.	I had opportunities to examine classroom artifacts (for example: student work samples, e-portfolios, videos of classroom instruction).	①	②	③	④	⑤
d.	I had opportunities to rehearse instructional practices during the professional development (meaning: try out, receive feedback, and reflect on those practices).	①	②	③	④	⑤
e.	I had opportunities to apply what I learned to my classroom and then come back and talk about it as part of the professional development.	①	②	③	④	⑤
f.	I worked closely with other teachers from my school.	①	②	③	④	⑤
g.	I worked closely with other teachers who taught the same grade and/ or subject whether or not they were from my school.	①	②	③	④	⑤

19. Thinking about all of your computer science-related professional development **in the last 3 years**, to what extent was each of the following emphasized? [Select one on each row.]

		NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a.	Deepening your own computer science content knowledge, including programming	①	②	③	④	⑤
b.	Deepening your understanding of how computer science is done (for example: breaking problems into smaller parts, considering the needs of a user, creating computational artifacts)	①	②	③	④	⑤
c.	Implementing the computer science textbook/online course to be used in your classroom	①	②	③	④	⑤
d.	Learning how to use programming activities that require a computer	①	②	③	④	⑤
e.	Learning about difficulties that students may have with particular computer science ideas and/or practices	①	②	③	④	⑤
f.	Monitoring student understanding during computer science instruction					
g.	Differentiating computer science instruction to meet the needs of diverse learners	①	②	③	④	⑤
h.	Incorporating students' cultural backgrounds into computer science instruction	①	②	③	④	⑤
i.	Learning how to provide computer science instruction that integrates engineering, mathematics, and/or science	①	②	③	④	⑤

Preparedness to Teach Computer Science

20. Within computer science, many teachers feel better prepared to teach some topics than others. How prepared do you feel to teach each of the following topics **at the grade level(s) you teach,** whether or not they are currently included in your teaching responsibilities? [Select one on each row.]

		NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a.	Computing systems	①	②	③	④
b.	Networks and the Internet	①	②	③	④
c.	Data and analysis	①	②	③	④
d.	Algorithms and programming	①	②	③	④
e.	Impacts of computing	①	②	③	④

21. How well prepared do you feel to do each of the following in your computer science instruction? [Select one on each row.]

		NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a.	Develop students' conceptual understanding of the computer science ideas you teach	①	②	③	④
b.	Develop students' abilities to do computer science (for example: breaking problems into smaller parts, considering the needs of a user, creating computational artifacts)	①	②	③	④
c.	Develop students' awareness of STEM careers	①	②	③	④
d.	Provide computer science instruction that is based on students' ideas (whether completely correct or not) about the topics you teach	①	②	③	④
e.	Use formative assessment to monitor student learning	①	②	③	④
f.	Differentiate computer science instruction to meet the needs of diverse learners	①	②	③	④
g.	Incorporate students' cultural backgrounds into computer science instruction	①	②	③	④
h.	Encourage students' interest in computer science	①	②	③	④
i.	Encourage participation of all students in computer science	①	②	③	④

Opinions about Computer Science Instruction

22. Please provide your opinion about each of the following statements. [Select one on each row.]

		STRONGLY DISAGREE	DISAGREE	NO OPINION	AGREE	STRONGLY AGREE
a.	Students learn computer science best in classes with students of similar abilities.	①	②	③	④	⑤
b.	It is better for computer science instruction to focus on ideas in depth, even if that means covering fewer topics.	①	②	③	④	⑤
c.	At the beginning of instruction on a computer science idea, students should be provided with definitions for new vocabulary that will be used.	①	②	③	④	⑤
d.	Most class periods should provide opportunities for students to share their thinking and reasoning.	①	②	③	④	⑤
e.	Hands-on/manipulatives/programming activities should be used primarily to reinforce a computer science idea that the students have already learned.	①	②	③	④	⑤
f.	Teachers should ask students to justify their solutions to a computational problem.	①	②	③	④	⑤
g.	Students learn best when instruction is connected to their everyday lives.	①	②	③	④	⑤
h.	Most class periods should provide opportunities for students to apply computer science ideas to real-world contexts.	①	②	③	④	⑤
i.	Students should learn computer science by doing computer science (for example: breaking problems into smaller parts, considering the needs of a user, creating computational artifacts).	①	②	③	④	⑤

Leadership Experiences

23. **In the last 3 years** have you… [Select one on each row.]

		YES	NO
a.	Served as a lead teacher or department chair?	○	○
b.	Served as a ***formal*** mentor or coach for a computer science teacher? (Do not include supervision of student teachers.)	○	○
c.	Supervised a student teacher in your classroom?	○	○
d.	Served on a school or district/diocese-wide computer science committee (for example: developing curriculum, developing pacing guides, selecting instructional materials)?	○	○
e.	Led or co-led a workshop or professional learning community (for example: teacher study group, lesson study) for other teachers focused on computer science or computer science teaching?	○	○
f.	Taught a computer science lesson for other teachers to observe?	○	○
g.	Observed another teacher's computer science lesson for the purpose of giving him/her feedback?	○	○

Your Computer Science Instruction

The rest of this questionnaire is about your *[[xth]]*computer science class, which you indicated was *[[type indicated in Q5]]* and is titled *[[title provided in Q6]]*.

24. On average, how many minutes per week does this class meet? [Enter your response as a whole number (for example: 300).] _____

25. Enter the number of students for each grade represented in this class. [Enter each response as a whole number (for example: 15).]

9th grade	
10th grade	
11th grade	
12th grade	
Other	

26. For the students in this class, indicate the number of males and females in each of the following categories of race/ethnicity. [Enter each response as a whole number (for example: 15).]

		MALES	FEMALES
a.	American Indian or Alaskan Native		
b.	Asian		
c.	Black or African American		
d.	Hispanic or Latino		
e.	Native Hawaiian or Other Pacific Islander		
f.	White		
g.	Two or more races		

27. Which of the following best describes the prior achievement levels of the students in this class relative to other students in this school?

○	Mostly low achievers
○	Mostly average achievers
○	Mostly high achievers
○	A mixture of levels

28. How much control do you have over each of the following for computer science instruction in this class? [Select one on each row.]

		NO CONTROL		MODERATE CONTROL		STRONG CONTROL
a.	Determining course goals and objectives	①	②	③	④	⑤
b.	Selecting curriculum materials (for example: textbooks/online courses)	①	②	③	④	⑤
c.	Selecting content, topics, and skills to be taught	①	②	③	④	⑤
d.	Selecting programming languages to use	①	②	③	④	⑤
e.	Selecting the sequence in which topics are covered	①	②	③	④	⑤
f.	Determining the amount of instructional time to spend on each topic	①	②	③	④	⑤
g.	Selecting teaching techniques	①	②	③	④	⑤
h.	Determining the amount of homework to be assigned	①	②	③	④	⑤
i.	Choosing criteria for grading student performance	①	②	③	④	⑤

29. Think about your plans for this class for the entire course. By the end of the course, how much emphasis will each of the following student objectives receive? [Select one on each row.]

		NONE	MINIMAL EMPHASIS	MODERATE EMPHASIS	HEAVY EMPHASIS
a.	Learning computer science vocabulary and/or program syntax	①	②	③	④
b.	Understanding computer science concepts	①	②	③	④
c.	Learning how to do computer science (for example: breaking problems into smaller parts, considering the needs of a user, creating computational artifacts)	①	②	③	④
d.	Learning how to develop computational solutions	①	②	③	④
e.	Learning about real-life applications of computer science	①	②	③	④
f.	Increasing students' interest in computer science	①	②	③	④
g.	Developing students' confidence that they can successfully pursue careers in computer science	①	②	③	④

30. How often do **you** do each of the following in your computer science instruction in this class? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL COMPUTER SCIENCE LESSONS
a. Explain computer science ideas to the whole class	①	②	③	④	⑤
b. Engage the whole class in discussions	①	②	③	④	⑤
c. Have students work in small groups	①	②	③	④	⑤
d. Have students do hands-on/manipulative programming activities that do not require a computer	①	②	③	④	⑤
e. Have students work on programming activities using a computer	①	②	③	④	⑤
f. Use flipped instruction (have students watch lectures/demonstrations outside of class to prepare for in-class activities)	①	②	③	④	⑤
g. Have students read from a textbook/ online course in class, either aloud or to themselves	①	②	③	④	⑤
h. Have students explain and justify their method for solving a problem	①	②	③	④	⑤
i. Have students present their solution strategies to the rest of the class	①	②	③	④	⑤
j. Have students compare and contrast different methods for solving a problem	①	②	③	④	⑤
k. Have students write their reflections (for example: in their journals, on exit tickets) in class or for homework	①	②	③	④	⑤
l. Focus on literacy skills (for example: informational reading or writing strategies)	①	②	③	④	⑤

31. How often do you have **students** do each of the following in this class? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL COMPUTER SCIENCE LESSONS
a. Create computational artifacts (for example: programs, simulations, visualizations, digital animations, robotic systems, or apps)	①	②	③	④	⑤
b. Create a computational artifact designed to be used by someone outside the class or other students	①	②	③	④	⑤
c. Provide feedback on other students' computational products or designs	①	②	③	④	⑤
d. Get input on computational products or designs from people with different perspectives (do not include feedback that you give students)	①	②	③	④	⑤
e. Systematically use test cases to verify program performance and/or identify problems	①	②	③	④	⑤
f. Identify real-world problems that might be solved computationally	①	②	③	④	⑤
g. Consider how a program they are creating can be separated into modules/ procedures/objects	①	②	③	④	⑤
h. Identify and adapt existing code to solve a new computational problem	①	②	③	④	⑤
i. Use computational methods to simulate events or processes (for example: rolling dice, supply and demand)	①	②	③	④	⑤
j. Analyze datasets using a computer to detect patterns	①	②	③	④	⑤
k. Write comments within code to document purposes or features	①	②	③	④	⑤
l. Create instructions for an end-user explaining how to use a computational artifact	①	②	③	④	⑤
m. Explain computational solution strategies verbally or in writing	①	②	③	④	⑤
n. Compare and contrast the strengths and limitations of different representations such as flow charts, tables, code, or pictures	①	②	③	④	⑤

32. Which best describes how each of the following devices (if required) is provided for this computer science class? [Select one on each row.]

	NOT REQUIRED FOR THIS CLASS	PROVIDED BY THE SCHOOL, AND STUDENTS ARE NOT ALLOWED TO USE THEIR OWN	PROVIDED BY THE SCHOOL, BUT STUDENTS ARE ALLOWED TO USE THEIR OWN	STUDENTS ARE EXPECTED TO PROVIDE THEIR OWN, BUT THE SCHOOL HAS SOME AVAILABLE FOR USE	STUDENTS ARE REQUIRED TO PROVIDE THEIR OWN
a. Computers (desktops or laptops)	○	○	○	○	○
b. Mobile computing devices (tablets or smartphones)	○	○	○	○	○
c. Data storage devices	○	○	○	○	○

33. Please indicate the availability of each of the following for your computer science instruction in this class. [Select one on each row.]

	ALWAYS AVAILABLE IN YOUR CLASSROOM	AVAILABLE UPON REQUEST	NOT AVAILABLE
a. Probes for collecting data (for example: motion sensors, temperature probes)	○	○	○
b. Projection devices (for example: Smartboard, document camera, LCD projector)	○	○	○
c. Robotics equipment	○	○	○

34. In a typical week, how much time outside of this class are students expected to spend on computer science assignments?

○	None
○	1–15 minutes per week
○	16–30 minutes per week
○	31–60 minutes per week
○	61–90 minutes per week
○	91–120 minutes per week
○	More than 2 hours per week

This next item asks about different types of instructional materials; please read the entire list of materials before answering

35. Thinking about your instruction in this class over the entire year, about how often is instruction based on materials from each of the following sources? [Select one on each row.]

	NEVER	RARELY (FOR EXAMPLE: A FEW TIMES A YEAR)	SOMETIMES (FOR EXAMPLE: ONCE OR TWICE A MONTH)	OFTEN (FOR EXAMPLE: ONCE OR TWICE A WEEK)	ALL OR ALMOST ALL COMPUTER SCIENCE LESSONS
a. Commercially published textbooks (printed or electronic), including the supplementary materials (for example: worksheets) that accompany the textbooks	①	②	③	④	⑤
b. State, county, or district/diocese-developed units or lessons	①	②	③	④	⑤
c. Online units or courses that students work through at their own pace (for example: MOOCs, EdX, IMACS)	①	②	③	④	⑤
d. Lessons or resources from websites that have a subscription fee or per lesson cost (for example: BrainPOP, Discovery Ed, Teachers Pay Teachers)	①	②	③	④	⑤
e. Lessons or resources from websites that are free (for example: Khan Academy, code.org)	①	②	③	④	⑤
f. Units or lessons you created (either by yourself or with others)	①	②	③	④	⑤
g. Units or lessons you collected from any other source (for example: conferences, journals, colleagues, university or museum partners)	①	②	③	④	⑤

36. Does your school/district/diocese designate instructional materials (textbooks, units, or lessons) to be used in this class?

o	Yes
o	No *[Skip to 39]*

37. Which of the following types of instructional materials does your school/district/diocese designate to be used in this class? [Select all that apply.]

□	Commercially published textbooks (printed or electronic), including the supplementary materials (for example: worksheets) that accompany the textbooks
□	State, county, or district/diocese-developed instructional materials
□	Online units or courses that students work through at their own pace (for example: MOOCs, EdX, IMACS)
□	Lessons or resources from websites that have a subscription fee or per lesson cost (for example: BrainPOP, Discovery Ed, Teachers Pay Teachers)
□	Lessons or resources from websites that are free (for example: Khan Academy, code.org)

38. Omitted – Used only for survey routing.

39. ***[Presented only to teachers who selected "Sometimes" "Often" or "All" for Q35a or c]***

[Version for teachers who indicate using a commercial textbook most often] Please indicate the title, author, most recent copyright year, and ISBN code of the commercially published textbook (printed or electronic) used <u>most often</u> by the students in this class.

- The 10- or 13-character ISBN code can be found on the copyright page and/or the back cover of the textbook.
- Do not include the dashes when entering the ISBN.
- Example ISBN:

[Version for teachers who indicate using an online course most often] Please indicate the title and URL of the online units or courses used <u>most often</u> by the students in this class.

Title:	
First Author: [for teachers who indicate using a commercial textbook most often]	
Year: [for teachers who indicate using a commercial textbook most often]	
ISBN: [for teachers who indicate using a commercial textbook most often]	
URL: [for teachers who indicate using an online program most often]	

40. ***[Presented only to teachers who did not select "Never" for Q35d or e]***

Please indicate up to 3 online sources of lessons/activities that you use most frequently in this class. Enter only the host/domain name, for example: www.myfavoriteCSsite.net

URL:	
URL:	
URL:	

41. Please rate how each of the following affects your computer science instruction in this class. [Select one on each row.]

		INHIBITS EFFECTIVE INSTRUCTION		NEUTRAL OR MIXED		PROMOTES EFFECTIVE INSTRUCTION	N/A
a.	Current state standards	①	②	③	④	⑤	○
b.	Textbook selection policies	①	②	③	④	⑤	○
c.	Teacher evaluation policies	①	②	③	④	⑤	○
d.	College entrance requirements	①	②	③	④	⑤	○
e.	Students' prior knowledge and skills	①	②	③	④	⑤	○
f.	Students' motivation, interest, and effort in computer science	①	②	③	④	⑤	○
g.	Parent/guardian expectations and involvement	①	②	③	④	⑤	○
h.	Principal support	①	②	③	④	⑤	○
i.	Amount of time for you to plan, individually and with colleagues	①	②	③	④	⑤	○
j.	Amount of time available for your professional development	①	②	③	④	⑤	○

42. In your opinion, how great a problem is each of the following for your computer science instruction in this class? [Select one on each row.]

		NOT A SIGNIFICANT PROBLEM	SOMEWHAT OF A PROBLEM	SERIOUS PROBLEM
a.	Lack of reliable access to the Internet	①	②	③
b.	Lack of functioning computing devices (for example: desktop computers, laptop computers, tablets, smartphones)	①	②	③
c.	Insufficient power sources for devices (for example: electrical outlets, charging stations)	①	②	③
d.	Lack of support to maintain technology (for example: repair broken devices, install software)	①	②	③
e.	School restrictions on Internet content that is allowed	①	②	③

Your Most Recently Completed Computer Science Unit in this Class

The questions in this section are about the most recently completed computer science unit in this class which you indicated is *[[type indicated in Q5]]* and is titled *[[title provided in Q6]]*.

- Depending on the structure of your class and the instructional materials you use, a unit may range from a few to many class periods.
- Do not be concerned if this unit was not typical of your instruction.

43. Which of the following best describes the content focus of this unit?

○	Computing systems
○	Networks and the Internet
○	Data and analysis
○	Algorithms and programming
○	Impacts of computing

44. ***[Presented only to teachers who selected "Sometimes" "Often" or "All" for Q35a or b]*** Was this unit based primarily on a commercially published textbook/online course or state, county, or district/diocese-developed materials?

○	Yes
○	No ***[Skip to Q47]***

This next set of items is about the textbook or state, county, or district/diocese-developed lessons you used in this unit.

45. Please indicate the extent to which you did each of the following while teaching this unit. [Select one on each row.]

		NOT AT ALL		SOMEWHAT		TO A GREAT EXTENT
a.	I used these materials to guide the structure and content emphasis of the unit.	①	②	③	④	⑤
b.	I picked what is important from these materials and skipped the rest.	①	②	③	④	⑤
c.	I incorporated activities (for example: problems, investigations, readings) from other sources to supplement what these materials were lacking.	①	②	③	④	⑤
d.	I modified activities from these materials.	①	②	③	④	⑤

46. ***[Presented only to teachers who did not select "Not at all" for Q45b]*** During this unit, when you skipped activities (for example: problems, programming activities, readings) in these materials, how much was each of the following a factor in your decisions? [Select one on each row.]

		NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a.	The computer science ideas addressed in the activities I skipped are not included in my pacing guide/standards.	①	②	③
b.	I did not have the materials needed to implement the activities I skipped.	①	②	③
c.	I did not have the knowledge needed to implement the activities I skipped.			
d.	The activities I skipped were too difficult for my students.	①	②	③
e.	My students already knew the computer science ideas or were able to learn them without the activities I skipped.	①	②	③
f.	I have different activities for those computer science ideas that work better than the ones I skipped.	①	②	③
g.	I did not have enough instructional time for the activities I skipped.	①	②	③

47. ***[Presented only to teachers who did not select "Not at all" for Q45c]***
During this unit, when you supplemented these materials with additional activities, how much was each of the following a factor in your decisions? [Select one on each row.]

		NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a.	My pacing guide indicated that I should use supplemental activities.	①	②	③
b.	Supplemental activities were needed to prepare students for standardized tests.	①	②	③
c.	Supplemental activities were needed to provide students with additional practice.	①	②	③
d.	Supplemental activities were needed so students at different levels of achievement could increase their understanding of the ideas targeted in each activity.	①	②	③
e.	I had additional activities that I liked.	①	②	③

48. ***[Presented only to teachers who did not select "Not at all" for Q45d]***
During this unit, when you modified activities from these materials, how much was each of the following a factor in your decisions? [Select one on each row.]

		NOT A FACTOR	A MINOR FACTOR	A MAJOR FACTOR
a.	I did not have the necessary materials/supplies for the original activities.	①	②	③
b.	The original activities were too difficult conceptually for my students.	①	②	③
c.	The original activities were too easy conceptually for my students.	①	②	③
d.	I did not have enough instructional time to implement the activities as designed.	①	②	③
e.	The original activities were too structured for my students.	①	②	③
f.	The original activities were not structured enough for my students.	①	②	③

49. How well prepared did you feel to do each of the following as part of your instruction on this particular unit? [Select one on each row.]

		NOT ADEQUATELY PREPARED	SOMEWHAT PREPARED	FAIRLY WELL PREPARED	VERY WELL PREPARED
a.	Anticipate difficulties that students may have with particular computer science ideas and procedures in this unit	①	②	③	④
b.	Find out what students thought or already knew about the key computer science ideas	①	②	③	④
c.	Implement the instructional materials (for example: textbook, online course) to be used during this unit	①	②	③	④
d.	Monitor student understanding during this unit	①	②	③	④
e.	Assess student understanding at the conclusion of this unit	①	②	③	④

Your Most Recent Computer Science Lesson in this Class

The next three questions refer to the most recent computer science lesson in this class, which you indicated is *[[type indicated in Q5]]* and is titled *[[title provided in Q6]]*, even if it included activities and/or interruptions that are not typical (for example: a test, students working on projects, a fire drill). If the lesson spanned multiple days, please answer for the most recent day.

50. How many minutes was that day's computer science lesson? Answer for the entire length of the class period, even if there were interruptions. [Enter your response as a non-zero whole number (for example: 50).] _____

51. Of these *[[answer to Q50]]* minutes, how many were spent on the following: [Enter each response as a whole number (for example: 15).]

a.	Non-instructional activities (for example: attendance taking, interruptions)	
b.	Whole class activities (for example: lectures, explanations, discussions)	
c.	Small group work	
d.	Students working individually (for example: reading textbooks, programming, taking a test or quiz)	

52. Which of the following activities took place during that day's computer science lesson? [Select all that apply.]

□	Teacher explaining a computer science idea to the whole class
□	Teacher conducting a demonstration while students watched
□	Whole class discussion
□	Students working in small groups
□	Students completing textbook/worksheet problems
□	Students doing hands-on/manipulative programming activities not using a computer
□	Students working on programming tasks using a computer
□	Students reading about computer science
□	Students writing about computer science (do not include students taking notes)
□	Test or quiz
□	None of the above

Demographic Information

53. Are you:

○	Female
○	Male
○	Other

54. Are you of Hispanic or Latino origin?

○	Yes
○	No

55. What is your race? [Select all that apply.]

□	American Indian or Alaskan Native
□	Asian
□	Black or African American
□	Native Hawaiian or Other Pacific Islander
□	White

56. In what year were you born? [Enter your response as a whole number (for example: 1969).]

_____

Thank you!