Appendix B

Survey Questionnaires

Science Program Questionnaire

Mathematics Program Questionnaire

Science Questionnaire (Teacher)

Mathematics Questionnaire (Teacher)

List of Course Titles

2000 National Survey of Science and Mathematics Education School Science Program Questionnaire

Instructions: Please use a #2 pencil or blue or black pen to complete this questionnaire. Darken ovals completely, but do not stray into adjacent ovals. Be sure to erase or white out completely any stray marks.

1. What is your title: (Darken all that appry.)	1.	What is your title?	(Darken all that apply.)
---	----	---------------------	--------------------------

0	Science department chair	@	Principal
@	Science lead teacher	@	Assistant principal
@	Teacher	@	Other (please specify):

2. Indicate whether each of the following programs/practices is currently being implemented in your school (Darken one oval on each line)

in v	your school. (Darken one oval on each line.)			Don't Know/
,	(Yes	<u>No</u>	Not Applicable
a.	School-based management	@	(N)	©
b.	Common daily planning period for members of the science department	@	@	@
c.	Common work space for members of the science department	@	@	@
d.	Teachers formally designated and serving as science lead teachers	@	@	©
e.	Teachers provided with release time to help other teachers in the school/district	@	@	©
f.	Interdisciplinary teams of teachers who share the same students	@	@	@
g.	Students assigned to science classes by ability	@	@	@
h.	Use of vocational/technical applications in science instruction	@	@	@
i.	Elementary or middle school students pulled out from self-contained classes for			
	remedial instruction in science	@	@	©
j.	Elementary or middle school students pulled out from self-contained classes for			
	enrichment in science	@	@	©
k.	Elementary or middle school students receiving instruction from science			
	specialists in addition to their regular teacher	@	@	@
1.	Elementary or middle school students receiving instruction from science			
	specialists instead of their regular teacher	@	@	@
m.	Science courses offered by telecommunications	@	@	©
n.	Students going to another K-12 school for science courses	@	@	@
ο.	Students going to a college or university for science courses	@	@	@
p.	Integration of science subjects (e.g., physical science, life science, and earth			
	science all taught together each year)	@	@	@

3. Please give us your opinion about each of the following statements in regard to the National Research Council's (NRC) work in setting standards for science curriculum, instruction, and assessment. (Darken one oval on each line.)

		Strongly <u>Disagree</u>	<u>Disagree</u>	No <u>Opinion</u>	Agree	Strongly Agree
a.	I am prepared to explain the NRC <i>National Science Education Standards</i> to my colleagues.	@	@	@	@	@
b.	The <i>Standards</i> have been thoroughly discussed by teachers in this school.	@	@	@	@	@
c.	There is a school-wide effort to make changes inspired by the <i>Standards</i> .	@	@	@	@	©
d.	Teachers in this school have implemented the <i>Standards</i> in their teaching.	@	@	@	@	©
e.	The principal of this school is well-informed about the <i>Standards</i> .	@	@	@	@	©
f.	Parents of students in this school are well-informed about the <i>Standards</i> .	@	@	@	@	©
g.	The superintendent of this district is well-informed about the <i>Standards</i> .	@	@	@	@	©
h.	The School Board is well-informed about the <i>Standards</i> .	@	@	@	@	©
i.	Our district is organizing staff development based on the <i>Standards</i> .	@	@	@	@	©
j.	Our district has changed how it evaluates teachers based on the <i>Standards</i> .	@	@	@	@	©

63 62	4.	Does your school include students i (Darken one oval.)	n grades 6 or higher?			NUE WITH QUESTION 5 QUESTION 8
62 61 60 59 58 55 55 54 53 52 51 50 49 48 47 46 45 44 41 40 39 38 37 36 36 37 37 36 37 37 37 38 38 39 39 39 39 39 39 39 39 39 39 39 39 39	5.	Please give the number of sections of (Additional course titles for these ca				
57 56		Current		Current		
55		number of		number (
54		sections Code Course Cate	<u>egory</u>	sections	s <u>Code</u>	Course Category
53		108 Life Scienc	e, 6 - 8		114	Biology, 1st year
52		109 Earth Scien			- 115	Biology, 1st year, Applied
51		110 Physical Sc			116	Biology, 2nd year, AP
50		111 General Sci	ience, 6 - 8		117	Biology, 2nd year, Advanced
49		112 Integrated S	Science, 6 - 8		118	Biology, 2nd year, Other
48					_	
47					119	Chemistry, 1st year
46		Grades 6-8.	Other Science Courses		120	Chemistry, 1st year, Applied
45		<u> </u>			121	Chemistry, 2nd year, AP
44			_		122	Chemistry, 2nd year, Advanced
43						
42					123	Physics, 1st year
41					124	Physics, 1st year, Applied
40					125	Physics, 2nd year, AP
39					126	Physics, 2nd year, Advanced
38					127	Physical Science
37					_	•
36					128	Astronomy/Space Science*
35					129	Geology*
34					130	Meteorology*
33				-	131	Oceanography/Marine Science*
32				-	_	5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
31					132	Earth Science, 1st year
30					133	Earth Science, 1st year, Applied
29					134	Earth Science, 2nd year,
28					_ 10.	Advanced/Other
27						ravanesa, siner
26					135	General Science
25					136	Environmental Science
24				-	137	Coordinated Science
23				-	138	Integrated Science
22					_ 136	integrated science
23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8						
20						Grades 9-12, Other Science Courses
19						Grades / 12, Other Science Courses
18					_	
17					_	
16					_	
15				* NOTE	E. A course t	hat includes substantial content from
14						arth sciences should be listed under
13					2, 133, 134,	
12				Coue 13	2, 133, 134,	O1 133.
11						
10	6.	Please give the code number of ony	science courses offered thi	ic wear that w	will not be of	fered next year. If all will be offered
9	υ.	next year, darken this oval \bigcirc and				
8		offered:	commue with question /. (omerwise, i	ist the code I	iumoci oi courses that will not be
7						_
6				_		
6 5			DO NOTHINGTON TO THE			
4			DO NOT WRITE IN THIS A REA O O O O O O O O O O			[SERIAL]
3						

		a. b. c.	All or most classes meet five da All or most classes meet five da All or most classes meet three conext week for one year. Other arrangement; on a separa written description of how often of minutes in each class session	te page, please give a brief n classes meet and the number	each class spaces pro darken the each colum	meets per s vided to the correspond nn: (Please	mber; e.g., if	9 9 9 9 9 9
8.	buc	dget	year? Provide your answer as a v	equipment and consumable supp whole dollar amount. (If you do the spaces provided, then darker	n't know the	exact amou	ınts, please pr	ovide your best
			your answers; e.g., enter \$125 as	1 2 5				<i>G</i> .
	a.	(no nor as 1 but \$ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @	ence Equipment n-consumable, n-perishable items such microscopes, scales, etc., not computers) 0 0 0 0 0 0 0	Consumable Science Supplies (materials that must continual be replenished such as chemicals, glassware, batterise etc.) \$	ly	please dar	2	
9.	In s	vour	oninian how great a problem is	each of the following for science		Not a		
٠.	-	•	ion in your school as a whole?			Significant	Somewhat of	Serious
	a.		cilities	(,		Problem (D)	a Problem	Problem
	b.		nds for purchasing equipment and	d supplies		@	@	@
	c.		terials for individualizing instruc			@	@	©
	d.		cess to computers			@	@	@
	e.	An	propriate computer software			@	@	@
	f.		dent interest in science			<u>_</u>	<u> </u>	<u></u>
	g.		dent reading abilities			@	@	@
	h.		dent absences			@	@	©
	i.	Tea	acher interest in science			@	@	3
	į.		acher preparation to teach science	e		@	@	©
	k.		ne to teach science			@	@	@
	1.	Op	portunities for teachers to share i	ideas		@	@	@
_					Questic	n 9 continu	ies on next pa	ge
			PLEASED	OO NOT W RITE IN THIS A REA				

[SERIAL]

Which of the following best describes the way science classes at your school are scheduled? (Darken one oval.)

7.

Systematic Supershare of Section Section Systematic Street Systematic Street	63	9.	continued	N-4 -		
11b. Please indicate the extent of your agreement with the overall vision of science education described in the National Science Education Standards. (Darken one oval.) 12. If you have an email address, please write it here: 13. When did you complete this questionnaire? Month Day Year 13. When did you complete this questionnaire and keep it in case the original is lost in the mail. Please return the original to: 15. Please make a photocopy of this questionnaire and keep it in case the original is lost in the mail. Please return the original to: 16. Please make a photocopy of Science and Mathematics Education Westat 1650 Research Blvd. TB120F Rockville, MD 20850	62				Somewhat of	Serious
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Education Standards. (Darken one oval.) 12. If you have an email address, please write it here: 13. When did you complete this questionnaire?/	27	11b.	Please indicate the extent of your agreement with the overall vision of science education described in the <i>National Science</i> Strongly Disagree Disagree			
12. If you have an email address, please write it here:	25 24 23		Education Standards. (Darken one oval.)	@	(D)	
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13. When did you complete this questionnaire?//	21					
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	<u>5</u>		THANK VALU			

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2000 National Survey of Science and Mathematics Education School Mathematics Program Questionnaire

Instructions: Please use a #2 pencil or blue or black pen to complete this questionnaire. Darken ovals completely, but do not stray into adjacent ovals. Be sure to erase or white out completely any stray marks.

1.	Wh	at is your title? (Darken all that apply	.)	
	@	Mathematics department chair	0	Principal
	@	Mathematics lead teacher	@	Assistant principal

Teacher
Other (please specify): ______

2. Indicate whether each of the following programs/practices is currently being implemented in your school. (Darken one oval on each line.)

(2.		Yes	<u>No</u>	Don't Know/ Not Applicable
a.	School-based management	@	(N)	@
b.	Common daily planning period for members of the mathematics			
	department	@	@	@
c.	Common work space for members of the mathematics department	@	@	@
d.	Teachers formally designated and serving as mathematics lead teachers	@	@	©
e.	Teachers provided with release time to help other teachers in the			
	school/district	@	@	@
f.	Interdisciplinary teams of teachers who share the same students	@	@	@
g.	Students assigned to mathematics classes by ability	@	@	@
h.	Use of vocational/technical applications in mathematics instruction	@	@	@
i.	Elementary or middle school students pulled out from self-contained			
	classes for remedial instruction in mathematics	@	@	@
j.	Elementary or middle school students pulled out from self-contained			
	classes for enrichment in mathematics	@	@	@
k.	Elementary or middle school students receiving instruction from			
	mathematics specialists in addition to their regular teacher	@	@	@
1.	Elementary or middle school students receiving instruction from			
	mathematics specialists instead of their regular teacher	@	@	@
m.	Mathematics courses offered by telecommunications	@	@	@
n.	Students going to another K-12 school for mathematics courses	@	@	@
o.	Students going to a college or university for mathematics courses	@	@	@
p.	Integration of mathematics subjects (e.g., algebra, probability,			
	geometry, etc. all taught together each year)	@	@	©

3. Please give us your opinion about each of the following statements in regard to the National Council of Teachers of Mathematics' (NCTM) work in setting standards for mathematics curriculum, instruction, and assessment. (Darken one oval on each line.)

	Strongly <u>Disagree</u>	Disagree	No <u>Opinion</u>	Agree	Strongly Agree
a. I am prepared to explain the NCTM <i>Standards</i> to my colleagues.	@	@	@	@	©
b. The <i>Standards</i> have been thoroughly discussed by teachers in this school.	@	@	@	@	©
c. There is a school-wide effort to make changes inspired by the <i>Standards</i> .	@	@	@	@	©
d. Teachers in this school have implemented the <i>Standards</i> in their teaching.	@	@	@	@	©
e. The principal of this school is well-informed about the <i>Standards</i> .	@	@	@	@	©
f. Parents of students in this school are well-informed about the <i>Standards</i> .	@	@	@	@	©
g. The superintendent of this district is well-informed about the <i>Standards</i> .	@	@	@	@	©
h. The School Board is well-informed about the <i>Standards</i> .	@	@	@	@	©
i. Our district is organizing staff development based on the <i>Standards</i> .	@	@	@	@	©
j. Our district has changed how it evaluates teachers based on the <i>Standards</i> .	@	@	@	@	©

		(GRADES 6-8			
Current			Current			
number of			number of			
sections	Code	Course Category	sections	Code	Course Cat	egory
	208	Remedial Mathematics 6	<u> </u>			Mathematics 8
	208	Regular Mathematics 6				athematics 8
	210	Accelerated/Pre-Algebra				Sathematics 8
		Mathematics 6		217	Algebra 1,	Grade 7 or 8
	211	Remedial Mathematics 7		218	integrated l	Middle Grade Mathematics, 7
	212	Regular Mathematics 7		CD A DEC	LCO OTIL	ED
	213	Accelerated Mathematics 7			6-8, OTH MATICS C	
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		<u>G</u>	RADES 9-12			
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<u>sections</u>	<u>Code</u>	Course Category		sections	<u>Code</u>	Course Category
		ES 9-12, REVIEW MATHEMATICS	-			
	219	Review Mathematics Level 1				DES 9-12, FORMAL
	220	(e.g., Remedial Mathematics) Review Mathematics Level 2			<u>MATE</u> 226	<u>IEMATICS</u> Formal Mathematics Level
	220	(e.g., Consumer Mathematics)			220	(e.g., Algebra 1, or
	221	Review Mathematics Level 3				Integrated Math 1)
		(e.g., General Mathematics 3)			227	Formal Mathematics Level
	222	Review Mathematics Level 4				(e.g., Geometry, or
		(e.g., General Mathematics 4)			220	Integrated Math 2)
	GRAD	ES 9-12, INFORMAL MATHEMAT	ICS		228	Formal Mathematics Level (e.g., Algebra 2, or
	223	Informal Mathematics Level 1	<u>ICB</u>			Integrated Math 3)
		(e.g., Pre-Algebra)			229	Formal Mathematics Level
	224	Informal Mathematics Level 2				(e.g., Algebra 3, or
		(e.g., Basic Geometry)			•••	Pre-Calculus)
	225	Informal Mathematics Level 3 (e.g., after Pre-Algebra, but not A	lachro 1)		230	Formal Mathematics Level (e.g., Calculus)
		(e.g., after Fie-Algebra, but not A	igeora 1)		231	Formal Mathematics Level
					231	1 officer Withernation Level
					<u>GRA</u>	DES 9-12, OTHER
					MAT	HEMATICS COURSES
					222	D 1 1. '11' 1 C(' '
					232 233	Probability and Statistics Mathematics integrated with
					233	other subjects
						34101 340J00tb

wnicn	of the following best desc	cribes the way mathematics classes at	your school	are scheduled	(Darken one	oval.)
a.b.c.	All or most classes mee	t five days per week for one year. t five days per week for one semester t three days one week and two days t	each space darke	e enter the nunclass meets per es provided to ten the correspo column: (Plea	r session in the he right, then nding oval in se enter your	(C)
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		mathematics equipment and consuma				
your be		e your answer as a <i>whole dollar amou</i> er your answers in the spaces provide ; e.g., enter \$125 as 1 2	<u>d, t</u> hen darke			
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In your instruct a. Fab. Fu c. Mad. Acc e. Apf. Stu	2 © © © © © © © © © © © © © © © © © © ©	© © © © © © © © © © © © © © © © © © ©	© © © © © © © © © © © © © © © © © © ©	20 @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @	a Problem @ @ @ @ @ @ @ @ @	Problem (3) (9) (9)

63 62 61	9.	contin	ued		Not a Significant <u>Problem</u>	Somewhat of a Problem	Serious <u>Problem</u>
60		i. Te	eacher interest in mathematics		@	@	3
59		j. Te	eacher preparation to teach mathematics		@	@	@
58			me to teach mathematics		@	@	@
57			pportunities for teachers to share ideas		@	@	@
56		1. 0	pportunities for touchors to share recus				
55		m In	-service education opportunities		@	@	@
54			terruptions for announcements, assemblies, other school ac	tivitios	@	<u>@</u>	@
53			•	uviues	©	©	@
50			arge classes				
52			aintaining discipline		@	@	@
51		q. Pa	arental support for education		@	@	@
50							
49							
48	10.	In you	r opinion, how great a problem is each of the following for	mathematics	Not a		
47		instruc	ction in your school as a whole? (Darken one oval on each	line.)	Significant	Somewhat of	Serious
46			`	,	<u>Problem</u>	a Problem	Problem
45		a. St	ate and/or district curriculum frameworks		@	@	@
44		b. St	ate and/or district testing policies and practices		@	@	3
43			nportance that the school places on mathematics		@	@	@
42			iblic attitudes toward mathematics reform at this school		@	@	@
41			onflict between mathematics reform efforts at this school at	nd other school/distr			_
40			form efforts	id other seliool/distr	@	@	@
30					@	@	@
30			me available for teachers to plan and prepare lessons	- 4h h1		©	
27			me available for teachers to work with other teachers during	g the school year	@		@
3/			me available for teacher professional development	1 11 17	@	@	@
30		-	ystem of managing instructional resources at the district or	_	_		
35		di	stributing materials for mathematics activities, refurbishing	materials)	@	@	@
63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 35 36 37 36 37 38 38 38 38 38 38 38 38 38 38	addi	How fa mather	is being asked of all mathematics teachers in the sample this School Mathematics Program Questionnaire, pleas amiliar are you with the NCTM Standards for matics curriculum, instruction, and evaluation? In one oval.)	Not at all familiar Somewhat familiar Fairly familiar	o and s, SKIP TO	SKIP TO QU	ESTION 12.
26 25 24 23 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4		vision Standa	indicate the extent of your agreement with the overall of mathematics education described in the NCTM ards. (Darken one oval.)	Strongly <u>Disagree</u> <u>Disagree</u> <u>Q</u>	No e Opinion	Strong Agree Agree	<u>ee</u>
19	12.	If you	have an email address, please write it here:				
18 17 16	13.	-	did you complete this questionnaire?/	/		For order	
15				,		FOR OFFICE US Please do not write i	
14	Plea	se mal	ke a photocopy of this questionnaire and keep it i	n case the			
13			lost in the mail. Please return the <u>original</u> to:			3 	
11		200 Wes	0 National Survey of Science and Mathematics E	ducation	@ (3	@ @ @ @ @ @ @ @
9						@@@@@	
8			0 Research Blvd.			9999	
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6		Roc	kville, MD 20850		@	@ @ @ @	@ @ @ @
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2			THANK YOU!				

2000 National Survey of Science and Mathematics Education



You have been selected to answer questions about your <u>science</u> instruction. If you do not currently teach science, please call us toll-free at 1-800-937-8288.

How to Complete the Questionnaire

Most of the questions instruct you to "darken one" answer or "darken all that apply." For a few questions, you are asked to write in your answer on the line provided. Please use a #2 pencil or blue or black pen to complete this questionnaire. Darken ovals completely, but do not stray into adjacent ovals. Be sure to erase or white out completely any stray marks.

Class Selection

Part of the questionnaire (sections C and D) asks you to provide information about instruction in a particular class. If you teach science to more than one class, use the label at the right to determine the science class that has been randomly selected for you to answer about. (If your teaching schedule varies by day, use today's schedule, or if today is not a school day, use the most recent school day.)

If You Have Questions

If you have questions about the study or any items in the questionnaire, call us toll-free at 1-800-937-8288.

Each participating school will receive a voucher for \$50 worth of science and mathematics materials. The voucher will be augmented by \$15 for each responding teacher. In addition, each participating school will receive a copy of the study's results in the spring of 2001.

Thank you very much. Your participation is greatly appreciated. Please return the completed questionnaire to us in the postage-paid envelope:

2000 National Survey of Science and Mathematics Education Westat 1650 Research Blvd. TB120F Rockville. MD 20850

Design Expert™ by NCS Printed in U.S.A. Mark Reflex® EW-230654-1:654321 HR0





	1		cher Opinions								
61	1.	Ple	ase provide vour	opinion about each of t	the following statemen	ts					
60	, 1. 		arken one oval on		ine ronowing statemen		Strongly		No		Strongly
59	j	`		,			Disagree	Disagree	Opinion	Agree	<u>Agree</u>
58				ence best in classes wi			@	@	@	@	⑤
57] i			am in my state/district	dictates what science of	content I teach.	@	@	@	@	®
56] 1		I enjoy teaching s		.1		@	@	@	@	®
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52				d I regularly share idea	as and materials related	d to science	Ū	_			_
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48]]		Most science teac about the science	thers in this school con	tribute actively to mak	ing decisions	@	(A)	Ø.	ø.	(
46]]		about the science	curriculum.			@	@	@	@	<u>®</u>
45]]										
44	2a.	. Hov	v familiar are you	with the National Science	ence Education Stando	ards, published	by the Na	tional Re	search C	ouncil?	
43	ĺ		rken one oval.)			. 1	•				
42]										
41] i			ar, SKIP TO QUESTIC	ON 3						
30]]	@	Somewhat famil Fairly familiar	1ar							
38]]	0	Very familiar								
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35	2b.	. Ple	ase indicate the e	xtent of your agreemer	nt with the overall vision	on of science ed	ucation d	escribed	in the <i>Na</i>	tional Sc	cience
34				s. (Darken one oval.)							
33				,							
32		Stro	ongly Disagree	Disagree	No Opinion	Agree	Stron	gly Agree			
31			@	Ф	Ф	@		0			
30] ì										
28	2c.	Тол	what artant have		mmandations from the	National Soion	oo Edwaa	tion Ctan	danda in s	zour sois	.
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3. *continued...*

C	minaeu	Not			
		Adequately	Somewhat	Fairly Well	Very Well
		Prepared	Prepared	Prepared	Prepared
f.	Manage a class of students engaged in hands-on/project-based work	@	@	@	4
g.	Have students work in cooperative learning groups	@	@	@	@
h.	Listen/ask questions as students work in order to gauge their understanding	@	@	@	@
i.	Use the textbook as a resource rather than the primary instructional tool	@	@	@	@
j.	Teach groups that are heterogeneous in ability	@	@	@	@
k.	Teach students who have limited English proficiency	@	@	@	@
1.	Recognize and respond to student cultural diversity	@	@	@	@
m.	Encourage students' interest in science	@	@	@	@
n.	Encourage participation of females in science	@	@	@	@
o.	Encourage participation of minorities in science	@	@	@	@
p.	Involve parents in the science education of their children	@	@	@	@
q.	Use calculators/computers for drill and practice	@	@	@	@
r.	Use calculators/computers for science learning games	@	@	@	@
s.	Use calculators/computers to collect and/or analyze data	@	@	@	@
t.	Use computers to demonstrate scientific principles	@	@	@	@
u.	Use computers for laboratory simulations	@	@	@	@
v.	Use the Internet in your science teaching for general reference	@	@	@	@
w.	Use the Internet in your science teaching for data acquisition	@	@	@	@
х.	Use the Internet in your science teaching for collaborative projects with				
	classes/individuals in other schools	@	@	@	@

4a. Do you have each of the following degrees?

Bachelors	@	Yes	Q	No
Masters	@	Yes	@	No
Doctorate	@	Yes	@	No

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

Bachelors Doctorate Masters Biology/Life Science @ @ **@** Chemistry **@** @ @ **@ @** @ Earth/Space Science Physics **@ @ @** @ @ @ Other science, please specify: @ @ Science Education (any science discipline) @ **@** @ @ Mathematics/Mathematics Education **@ @** @ Elementary Education Other Education (e.g., History Education, Special Education) **@** @ Other, please specify: ___

63 62 61	5.	gra	hich of the following college conduate or undergraduate level. I nool. (Darken all that apply.)														
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59			OUCATION Consult mostly do of too ships			RTH/SPA							SICS				
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55		@	1	s/otner	@	Geology		_					Electr				
54		<u></u>	technologies	:	@	Meteoro							Heat a		ermoa	ynamı	cs
52		@	Supervised student teaching in	i science	@	Oceanog							Mecha			1	:
52		M	A THEM A TICE		@	Physical Environi							Mode		-	m pny	SICS
52			ATHEMATICS		@								Nucle		SICS		
50		@			@	Agricult	urai s	scien	ce				Optics		1		
40		<u></u>	elementary functions		T TE	E CCIEN	CEC						Solid			3	
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46		@			@	Botany,		t pny	siolog	у		OTI		of a	. .		
40		@			@	Cell biol	ogy						Histor	-			
40		@	Probability and statistics		@	Ecology							Philos				
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40			HEMISTRY		@	Genetics			OΠ				Electr		· (A	`	
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36		@	Other chemistry														
59 58 57 56 55 55 51 50 49 46 47 44 43 42 41 40 39 38 37 36 36 36 37 32 31 30 29																	
32 31	6.	Co	r each of the following subject a bunt each course you have taken, ailable, provide your best estima	, regardless of w			_			_			-		_		e not
30																	
29				Semester	Cou	rses				Quarte	r Cours	es					
27		a.	Life sciences		@ (തതെത	-a	a	തെര	ത അ അ	D (D) (E	തെ	മ ദ				
26		b.	Chemistry	000000													
25		c.	Physics/physical science								D (B) (B						
24		d.	Earth/space science	$ \bigcirc \bigcirc$													
23		e.	Science education	@@@@@													
22		f.	Mathematics	@ @ @ @							D (2)						
21				0000	_			1 -									
25 24 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2																	
18	7.	C	onsidering all of your undergradu	iate and oraduate	e sci	ience con	rses	annr	Oxima	telv w	hat ne	rcent	oe we	re con	nnlete	d at es	ach
17	7.		the following types of institution						OAIIII	icly w	nat pe	rcciiu	ige we	10 001	присис	a ai ci	ıcıı
16		01	the following types of institution	iis. (Burken one	011	ii oii cacii	mic.	•)									
15						0	%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
14		a.	Two-year college/community	college/technica	1 scl		<u>, </u>	@	@	@	@	@	@	@	@	@	0
13		b.	Four-year college/university	conege/technica	1 501		9	0	@	@	@	@	<u>@</u>	@	@	@	0
12		0.	Tour year conlege, and versity									Ť					
11																	
10																	
9																	
8																	
7																	
6																	
5																	
4																	
3																	
0																	

8.	In what year did you last take a formal course for college credit in: (Please enter your answers in the spaces provided, then darken the corresponding oval in each column.)									
9.	12 in	hat is the total amount of time you hat is the total amount of time you hat clude formal courses for which you	ide attendance at pr received college cr	ofessional meetings, worksho	and go	go to ques e teaching l conferer	g of so	cience in to	t	
	tea	achers.) (Darken one oval in each co	olumn.)							
			Last	Last						
	<u>H</u>	ours of In-service Education	12 months	3 years						
		one	@	@						
		ess than 6 hours	@	@						
		15 hours	@	@						
		5-35 hours ore than 35 hours	©	©						
10.	a. b. c. d.	Taught any in-service workshops Mentored another teacher as part supported by the school or district Received any local, state, or natio Served on a school or district scie	in science or science of a formal arrange t, not including sup onal grants or award	the teaching? ment that is recognized or ervision of student teachers? Is for science teaching?		Yes Yes Yes Yes	@	No No No		
	e.	Served on a school or district scie			0	Yes		No		
11.	In	the past 3 years , have you participa Parken one oval on each line.) Taken a formal college/university s	ated in any of the fo	llowing activities related to so	cience (or the teac	ching	of science		
		your undergraduate degree.)					0	Yes	0	No
	b. c.	Taken a formal college/university c taken as part of your undergraduate Observed other teachers teaching so	degree.)				@	Yes	@	No
		informal).					@	Yes	@	No
	d.	Met with a local group of teachers of	_		_	es.	@	Yes	@	No
	e.	Collaborated on science teaching is telecommunications.				1	@	Yes	@	No
	f.	Served as a mentor and/or peer coarecognized or supported by the schere has been been been been been been been bee					~	Ves	~	Νο
	σ	teachers.) Attended a workshop on science tea	aching				@	Yes Yes		No No
	g.	Attended a workshop on science tea	ueming.		Quest	ion 11 cor				
Г		DIEVO	E DO NOT WRITE IN THI	IS A REA	Zuest	.S. 11 CO	iiiiiie	S ON HEAL	puge.	
						[SE	ERI	AL]		

8.

63	11. c	contin	ued								
61		h.	Attended a national or state science teacher association meeting.				Q	9 Ye	ės	@	No
60 59		i.	Applied (or applying) for certification from the National Board for Pr	rofessional '	Teaching						No
58		i	Standards (NBPTS). Received certification from the National Board for Professional Teach	ching Standa	ards (NRP	TS)		YeYeYe		@ @	No
57		J.	received certification from the reactional Board for Frotessional Fode	anng Standt	ards (TVDT	15).		, 10	5	•	110
57 56 55 54 53 52 51 50	Ωπο	ction	s 12a-12c ask about your professional development in the last 3 ye	ore If you	have hee	n tea	china	for fe	wer f	han 1	Ł
55			ease answer for the time that you have been teaching.	ais. Ii you	nave bee	II ica	cining	101 10	wer ti	uaii c	,
54	J	~, F	· · · · · · · · · · · · · · · · · · ·								
52	12a.	Thi	nk back to 3 years ago. How would you rate your level of need for pr	rofessional							
51	12		elopment in each of these areas at that time? (Darken one oval on each		None	Mi	nor	Mod	lerate	Sub	stantia
50					Needed	Ne	eed	N	eed	1	Need
49			epening my own science content knowledge		@		D .		D		0
48			derstanding student thinking in science		@		D -		D		@
47		Lea	rning how to use inquiry/investigation-oriented teaching strategies		©	Q	Ð	(D		@
45		Lea	rning how to use technology in science instruction		@	a	D	(D		@
44			rning how to assess student learning in science		o	Q			D D		@
43			rning how to teach science in a class that includes students with specia	al needs	@		D D		_ D		@
42											
41	12b.	Cor	nsidering all the professional development you have participated in du	ring the las	st 3				_	_	
40			rs, how much was each of the following emphasized? (Darken one ov			Not at all			1	Γο a gr <u>exter</u>	
38		•	epening my own science content knowledge			<u>ac an</u>	0	Ф	0	(D)	<u></u>
37			lerstanding student thinking in science			0	@	@	0	0	
36			rning how to use inquiry/investigation-oriented teaching strategies			@	©	@	@	@	
35											
34			rning how to use technology in science instruction			0	0	0	0	0	
33			rning how to assess student learning in science			@	@	@	@	@	
32		Lea	rning how to teach science in a class that includes students with specia	al needs		@	@	@	0	0	
44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28											
29	12c.		nsidering all your professional development in the last 3 years, how w	ould you ra	te its impa	ct in	each o	f thes	e area	s?	
28		(Da		Little or		rmed w			used me		
27				o impact	was a	ready	doing	my	teachir	ig prac	tices
26			epening my own science content knowledge	@		@				ഉ	
24			derstanding student thinking in science rning how to use inquiry/investigation-oriented teaching strategies	Ф Ф		@				ත ත	
23		LCa	ming now to use inquiry/investigation-offened eaching strategies	•		~				~	
22		Lea	rning how to use technology in science instruction	@		0			(D	
21			rning how to assess student learning in science	@		@			(ഇ	
20		Lea	rning how to teach science in a class that includes students with								
19			special needs	@		0				ற	
17											
16	13a.	Do	you teach in a self-contained class ? (i.e., you teach multiple	Yes, CONT	TINUE WI	тн с	OUES	ΓΙΟΝ	S 13b	AND	13c
15			•	No, SKIP T			-				
14											
13	13b.	For	teachers of self-contained classes: Many teachers feel better qualifie	ed to teach s	some subi	ect are	eas tha	ın othe	ers. H	low w	vell
25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3			lified do you feel to teach each of the following subjects at the grade								
10			uded in your curriculum? (Darken one oval on each line.)	Not Well	Adequ			ery We			
9				Qualified	Qual			Qualific			
8		a.	Life science	@	Q			@			
7		b.	Earth science	@	Q			3			
6		c.	Physical science	@	Q			3			
5		d.	Mathematics Production Action Action	@	@			@			
4		e. f.	Reading/Language Arts Social Studies	@	Q G			@			
<u> </u>		1.	DOCIAL DIMMES	@	Q	•		@			

13c. *For teachers of self-contained classes:* We are interested in knowing how much time your students spend studying various subjects. In a typical week, how many days do you have lessons on each of the following subjects, and how many minutes long is an average lesson? (*Please indicate "0" if you do not teach a particular subject to this class.* Please enter your answer in the spaces provided, then darken the corresponding oval in each column. Enter the number of minutes as a 3-digit number; e.g., if 30 minutes, enter as 030.)

Ma	athematics	,	Science	Soc	ial Studies	Reading/Language Arts			
Days		Days		Days		Days			
Per	Approximate	Per	Approximate	Per	Approximate	Per	Approximate		
Week	Minutes Per Day	Week	Minutes Per Day	Week	Minutes Per Day	Week	Minutes Per Day		
@	@ @ @	@	@ @	@	@ @ @	@	@ @ @		
@	@@@	@	@ @ @	@	@ @ @	@	@ @ @		
@	@ @	@	@@	@	@@	@	@ @ @		
@	@ @	@	@	@	@ @	@	@ @		
@	@ @	@	@ @	@	@@	@	@ @		
⑤	® ®	⑤	® ®	⑤	® ®	⑤	®		
	®		®		® ®		@		
	@ @		@ @		@ @		@ @		
	@		@		@ @		@ @		
	@ @		@		@ @		@ @		

NOW GO TO SECTION C, PAGE 8.

- 14. Which of these categories best describes the way **your** classes at this school are organized? (Darken one oval.)
 - a. **Departmentalized Instruction**—you teach subject matter courses (including science, and perhaps other courses) to several different classes of students all or most of the day.
 - **©** b. **Elementary Enrichment Class**—you teach only science in an elementary school.
 - C. Team Teaching—you collaborate with one or more teachers in teaching multiple subjects to the same class of students; your assignment includes science.
- 15a. *For teachers of non-self-contained classes*: Within science, many teachers feel better qualified to teach some topics than others. How well qualified 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 curriculum? (Darken one oval on each line.)

			Not Well	Adequately	Very Well
1.	Ea	rth science	Qualified	Qualified	Qualified
	a.	Earth's features and physical processes	@	@	©
	b.	The solar system and the universe	@	@	@
	c.	Climate and weather	@	@	@
_					
2.	Bio	ology			
	a.	Structure and function of human systems	@	@	@
	b.	Plant biology	@	@	@
	c.	Animal behavior	@	@	@
	d.	Interactions of living things/ecology	@	@	@
	e.	Genetics and evolution	@	@	@
3.	Ch	emistry			
	a.	Structure of matter and chemical bonding	@	@	©
	b.	Properties and states of matter	@	@	@
	c.	Chemical reactions	@	@	@
	d.	Energy and chemical change	@	@	@
		<u>(</u>	Question 15a contii	nues on next pa	ge

63	15a.	contin	ued					
62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 44 43 42 41 40 39 38 37 36 36 37 36 37 37 30 30 30 30 30 30 30 30 30 30 30 30 30	4	. Ph	ysics			Not well qualified	Adequately qualified	Very well qualified
60		a.	Forces and motion			@	@	@
59		b.	Energy			@	@	@
58		c.	Light and sound			@	@	@
5/		d.	Electricity and magnetism			@	@	@
55		e.	Modern physics (e.g., spe	ciai relativity)		@	@	@
54	5	En:	vironmental and resource is	CHAC				
53	3	a.	Pollution, acid rain, globa			@	@	3
52		b.	Population, food supply a	•		@	<u> </u>	@
51			1117	1				
50	6	s. Sci	ence process/inquiry skills					
49		a.	Formulating hypotheses, of	drawing conclusions, ma	aking generalizations	@	@	@
48		b.	Experimental design			@	@	@
47		c.	Describing, graphing, and	interpreting data		@	@	@
46								
44	15h	For to	achers of non-self-contain	ned classes. For each cl	ass period you are curre	ently teaching	regardless of	the subject give
43			e title, the code-number from		= -	-	-	
42								
41			and the <i>number of students</i>		-			
40		ovai ii	n each column. If you teac	n more than one secu	on of a course, record	each section	separately be	iow.)
39								
38			e that if you have more th		class, you will not be a	ble to darke	n the ovals, bu	ıt you should still
36			ite the number in the boxe					
35		- If y	ou teach more than 6 class	ses per day, please pro	vide the requested inf	ormation for	the additiona	al classes on a
34		sep	arate sheet of paper.					
33								
32								
31				_				
30			Course Title		ourse Title		Course T	
28			Code # # of Students	Code #	# of Students		Code #	# of Students
27			(3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	@ @ @	(0) (0)		@ @ @	(D)
26			000	@ @ @			@ @ @	@ @
25			@ @ @ @ @	@ @ @			@ @ @	@ @
24			@ @ @	@ @ @	@ @		@ @ @	@ @
23			(a) (a)	@ @			@ @	@
22			(B) (B)	® ®			® ®	®
21				® ®			(D) (D)	(2)
10			(D)	@ @ @ @			@ @	@
18				(a) (b)			(D) (D)	©
17			4 4	9 9			9 9	
16								
25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2			Course Title		ourse Title		Course T	itle
14			Code # # of Students	Code #	# of Students		Code #	# of Students
13								
12				0000			@ @ @	(3) (3)
10			(a)	@ @ @ @ @ @			@ @ @ @ @ @	@ @ @ @
9			@ @ @ @ @ @ @ @ @ @	@ @ @ @ @ @			@ @ @ @ @ @	@ @ @ @
8				@ @			(a) (a)	@
7			(a) (a)	(B) (C)			(D) (D)	©
6			(a) (a)	© ©			(a) (a)	<u> </u>
5			@ @	@ @			@ @	@
4			®	® ®			@ @	®
3			©	@ @			@ @	@
1 2 1					7			

C. Your Science Teaching in a Particular Class

The questions in this section are about a particular science class you teach. If you teach science to more than one class per day, please consult the label on the front of this questionnaire to determine which science class to use to answer these questions.

16. Using the blue "List of Course Titles," indicate the code number that best describes this course. Please enter your answer in the spaces to the right, then darken the corresponding oval in each column. (If "other" [Code 199], briefly describe content of course:

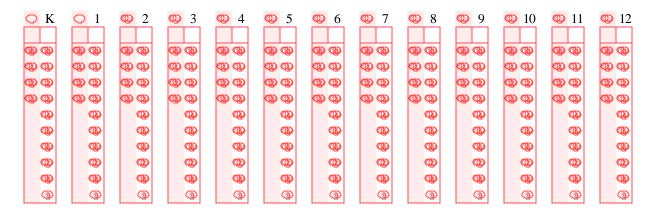
Code #

@ ③

17a. Are all students in this class in the same grade?

ONE OF THE PROOF OF THE PROOF

17b. What grades are represented in this class? (Darken all that apply.) For each grade noted, indicate the number of students in this class in that grade. Write your answer in the space provided, then darken the corresponding oval in each column. Note that if more than 39 students in this class are in a single grade, you will not be able to darken the ovals, but you should still write the number in the boxes.



18a. What is the total number of students in this class? Write your answer in the space provided, then darken the corresponding oval in each column. Note that if you have more than 39 students in this class, you will not be able to darken the ovals, but you should still write the number in the boxes.



63 62				the following categories.		•
61 60 59 58 57 56 56			darken the corresponding		y particular students.	(Trease effect your
58						
57			RACE/ET	HNICITY		
56						
54					Native Hawaiian	
53	American Indian		Black or	Hispanic or Latino	or Other	
52	or Alaskan Native	Asian	African-American	(any race)	Pacific Islander	White
51	Male Female	Male Female	Male Female	Male Female	Male Female	Male Female
50 49						
		(D)			(D)	(D)
47			0000			0000
46	@ @ @	@ @ @	@ @ @	@ @ @	@ @ @	@ @ @
45	(a) (a)	(a) (a)	(Q) (Q)	(Q) (Q)	@ @	@ @
44	(B)		(3)	©	©	® ®
43						
42					(D)	
40			(B)	(B) (B) (3)	(2) (2) (3)	(B)
39	(9)	a a				9 9
38						
37						
36	19a. Questions 19	a and 19b apply only t	to teachers of non-self-	contained classes. If yo	u teach a self-contai	ned class, please
35	darken this o	oval 📿 and skip to qu	nestion 20. What is the	usual schedule and lengt	h (in minutes) of daily	class meetings
34	f = 1 41 = 1 = 2					
	for this class?	? If the weekly schedule	is normally the same, ju	ust complete Week 1, as i	in Example 1. If you	are unable to
32		•	•	ust complete Week 1, as it te piece of paper with yo		are unable to
32		•	•	•		are unable to
32 31 30		•	•	•		are unable to
32 31 30 29		•	•	•		are unable to
48 47 46 45 44 41 40 39 38 37 36 35 34 33 32 31 30 29 28	describe this o	class in the format below	w, please attach a separa	te piece of paper with yo	Examples	Example 2
27		class in the format below	w, please attach a separa	te piece of paper with yo Exa Week 1	Examples mple 1 Week 2 Week	Example 2 1 Week 2
27	describe this o	class in the format below	w, please attach a separa	te piece of paper with yo	Examples	Example 2 1 Week 2
27	describe this o	class in the format below	w, please attach a separa	te piece of paper with yo Exa Week 1	Examples mple 1 Week 2 Week	Example 2 1 Week 2
27	Monday Tuesday	class in the format below	w, please attach a separa	Exa Week 1 _4545_	Examples mple 1 Week 2 Week 2 90 ———	2xample 2 1 Week 2
27	describe this o	class in the format below	w, please attach a separa	Exa Week 1 _45_	Examples mple 1 Week 2 Week	2xample 2 1 Week 2
27	Monday Tuesday	class in the format below	w, please attach a separa	Exa Week 1 _4545_	Examples mple 1 Week 2 Week 2 90 ———	2xample 2 1 Week 2
27	Monday Tuesday Wednesday Thursday	class in the format below	w, please attach a separa	Exa Week 1 _45 _45 _45 _45 _45	Examples	2xample 2 1 Week 2
27	Monday Tuesday Wednesday	class in the format below	w, please attach a separa	Exa Week 1 _45 _45 _45	Examples mple 1 Week 2 Week 2 90 ———	2xample 2 1 Week 2
27	Monday Tuesday Wednesday Thursday	class in the format below	w, please attach a separa	Exa Week 1 _45 _45 _45 _45 _45	Examples	2xample 2 1 Week 2
27	Monday Tuesday Wednesday Thursday	class in the format below	Week 2	Exa Week 1 _45 _45 _45 _45 _45	Examples	2xample 2 1 Week 2
27	Monday Tuesday Wednesday Thursday	Week 1	Week 2	Exa Week 1 45 45 45 45 45 45 45	Examples mple 1 Week 2 Week 2 90 90 90 90	2xample 2 1 Week 2
27	Monday Tuesday Wednesday Thursday	Week 1	Week 2 For of	Exa Week 1 45 45 45 45 45 45 45 25 45 25 45 26 45 26 45 27 45 28 45 29 45 45 45 45 45 45 45 45 45 4	Examples	2xample 2 1 Week 2
27	Monday Tuesday Wednesday Thursday	Week 1	Week 2	Exa Week 1 45 45 45 45 45 45 00 00 00 00 00 00 00 00 00 00 00 00 00	Examples mple 1 Week 2 Week 2 90 90 90 90	2xample 2 1 Week 2
27	Monday Tuesday Wednesday Thursday	Week 1	Week 2 For of 20 (20 (30 (30 (30 (30 (30 (30 (30 (30 (30 (3	Exa Week 1 45 45 45 45 45 45 00 00 00 00 00 00 00 00 00 00 00 00 00	Examples	2xample 2 1 Week 2
27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12	Monday Tuesday Wednesday Thursday Friday	Week 1	Week 2	Exa Week 1 45 45 45 45 45 45 0 30 (3) (3) (3) (3) (3) (3) (3) (3) (3) (3)	Examples	2xample 2 1 Week 2
27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12	Monday Tuesday Wednesday Thursday Friday	Week 1	Week 2 For of 20 (20 (30 (30 (30 (30 (30 (30 (30 (30 (30 (3	Exa Week 1 45 45 45 45 45 45 0 30 (3) (3) (3) (3) (3) (3) (3) (3) (3) (3)	Examples	2xample 2 1 Week 2
27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12	Monday Tuesday Wednesday Thursday Friday	Week 1	Week 2	Exa Week 1 45 45 45 45 45 45 0 30 (3) (3) (3) (3) (3) (3) (3) (3) (3) (3)	Examples	2xample 2 1 Week 2
27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12	Monday Tuesday Wednesday Thursday Friday 19b. What is the ca	Week 1	Week 2	Exa Week 1 45 45 45 45 45 45 0 30 (3) (3) (3) (3) (3) (3) (3) (3) (3) (3)	Examples	2xample 2 1 Week 2
27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12	Monday Tuesday Wednesday Thursday Friday 19b. What is the ca	Week 1	Week 2	Exa Week 1 45 45 45 45 45 45 0 30 (3) (3) (3) (3) (3) (3) (3) (3) (3) (3)	Examples	2xample 2 1 Week 2
27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12	Monday Tuesday Wednesday Thursday Friday 19b. What is the ca	Week 1	Week 2 Week 2 For one of the control of the contr	Exa Week 1 45 45 45 45 45 45 0 30 (3) (3) (3) (3) (3) (3) (3) (3) (3) (3)	Examples	2xample 2 1 Week 2
27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12	Monday Tuesday Wednesday Thursday Friday 19b. What is the ca	Week 1 Week 1 alendar duration of this	Week 2	Exa Week 1 45 45 45 45 45 45 00 00 00 00 00 00 00 00 00 00 00 00 00	Examples mple 1 Week 2 Week 90 90 90 90 90 90 90 90 90 90	Week 2
27	Monday Tuesday Wednesday Thursday Friday 19b. What is the ca	Week 1 Week 1 alendar duration of this	Week 2 Week 2 For or B ② ② ③ ⑤ ⑤ ② ⑤ ② Science class? (Darken of	Exa Week 1 45 45 45 45 45 45 00 00 00 00 00 00 00 00 00 00 00 00 00	Examples	Week 2

21.		Which of the following best describes the ability of the students in the Darken one oval.)	nis class re	lative to oth	er students	in this schoo	1?
	Q	Fairly homogeneous and average in ability					
	Q M	, e e					
	Q	Heterogeneous, with a mixture of two or more ability levels					
22.	In	ndicate if any of the students in this science class are formally clas	sified as ea	ch of the fol	llowing: (D	arken all tha	at apply.)
	Q	, , , , , ,					
	Q	Mentally Handicapped					
	Q	Physically Handicapped, please specify handicap(s):					
23.		hink about your plans for this science class for the entire course. I bjectives receive? (Darken one oval on each line.)	How much	emphasis wi	ill each of the	he following	student
	U	ojectives receive: (Darken one ovar on each fine.)		None	Minimal Emphasis	Moderate Emphasis	Heavy Emphasis
	a.	Increase students' interest in science		@	@	@	3
	b.	Learn basic science concepts		@	@	@	@
	c.	Learn important terms and facts of science		@	@	@	@
	d.	Learn science process/inquiry skills		@	@	@	@
	e.	Prepare for further study in science		@	@	@	@
	f.	Learn to evaluate arguments based on scientific evidence		@	@	@	@
	g.	Learn how to communicate ideas in science effectively		@	@	@	@
	h.	Learn about the applications of science in business and industry		@	@	@	@
	i.	Learn about the relationship between science, technology, and so	ciety	@	@	@	@
	j.	Learn about the history and nature of science		@	@	@	@
	k.	Prepare for standardized tests		@	@	@	@
		•		Rarely	Sometimes	Often	Allor
24.	A	bout how often do you do each of the following in your science		(e.g., a few		(e.g., once	almost all
	in	struction? (Darken one oval on each line.)		times a	or twice	or twice	science
			<u>Never</u>	<u>year)</u>	a month)	a week)	<u>lessons</u>
	a.	Introduce content through formal presentations	@	@	@	@	⑤
	b.	Pose open-ended questions	@	@	@	@	@
	c.	Engage the whole class in discussions	@	@	@	@	@
	d.	Require students to supply evidence to support their claims	@	@	@	@	@
	e.	Ask students to explain concepts to one another	@	@	@	@	®
	f.	Ask students to consider alternative explanations	@	@	@	@	®
	g.	Allow students to work at their own pace	@	@	@	@	©
	h.	Help students see connections between science and other					
		disciplines	@	@	@	@	®
	i.	Assign science homework	@	@	@	@	©
	j.	Read and comment on the reflections students have written,					
		e.g., in their journals	@	@	@	@	@

10

Yes

O No

Are students assigned to this class by level of ability? (Darken one oval.)

20.

63 62 61 60 59 58 57	25.		out how often do students in this science class take part in the lowing types of activities? (Darken one oval on each line.)	<u>Never</u>	Rarely (e.g., a few times a <u>year</u>)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice <u>a week)</u>	All or almost all science <u>lessons</u>
59		a.	Listen and take notes during presentation by teacher	@	@	@	@	(5)
58		b.	Watch a science demonstration	@	@	@	@	(B)
57		c.	Work in groups	@	@	@	@	®
56		d.	Read from a science textbook in class	@	@	@	@	(B)
55 54		e.	Read other (non-textbook) science-related materials in class	@	@	@	@	(D)
53		f.	Do hands-on/laboratory science activities or investigations	@	@	@	@	®
52		g.	Follow specific instructions in an activity or investigation	@	@	@	@	®
51		h.	Design or implement their <i>own</i> investigation	@	@	@	@	®
50		i.	Participate in field work	@	@	@	@	®
49		j.	Answer textbook or worksheet questions	@	@	@	@	®
48		3	•					
47		k.	Record, represent, and/or analyze data	@	@	@	@	®
46		1.	Write reflections (e.g., in a journal)	@	<u> </u>	<u> </u>	<u> </u>	®
45		m.	Prepare written science reports	@	<u>_</u>	@	<u> </u>	<u> </u>
44		n.	Make formal presentations to the rest of the class	@	<u> </u>	<u> </u>	<u> </u>	©
43		0.	Work on extended science investigations or projects (a week or	-				
42		0.	more in duration)	@	@	@	@	©
41			more in duration)	~	•	~	4	-
40		n	Use computers as a tool (e.g., spreadsheets, data analysis)	@	@	@	@	@
39		p.	Use mathematics as a tool (e.g., spreadsheets, data analysis)	@	@	@	@	
38		q.		@				®
27		r.	Take field trips	æ)	@	@	@	®
36		S.	Watch audiovisual presentations (e.g., videotapes, CD-ROMs,	<i>(</i> 2)	(A)	A	(7)	
35			videodiscs, television programs, films, or filmstrips)	@	@	@	@	®
555 549 48 47 46 45 44 41 40 39 38 37 36 36 37 36 37 36 37 37 36 37 37 38 39 30 30 31 31 31 31 31 31 31 31 31 31	26.		out how often do students in this science class use computers to: arken one oval on each line.)	<u>Never</u>	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice <u>a week)</u>	All or almost all science <u>lessons</u>
29		a.	Do drill and practice	@	<u></u>	@	<u></u>	⑤
28		b.	Demonstrate scientific principles	@	<u> </u>	<u> </u>	<u> </u>	©
27		c.	Play science learning games	@	©	©	@	©
26		d.	Do laboratory simulations	@	©	<u>@</u>	Q)	©
25		e.	Collect data using sensors or probes	@	©	©	@	©
24		f.	Retrieve or exchange data	@	<u> </u>	<u> </u>	<u> </u>	©
23		g.	Solve problems using simulations	@	©	@	@	©
22		h.	Take a test or quiz	@	©	@	@	©
21		11.	Tune a test of quiz	-				
24 23 22 21 20 19 18 17	27.		w often do you assess student progress in science in each of the lowing ways? (Darken one oval on each line.)	<u>Never</u>	Rarely (e.g., a fev times a <u>year)</u>	Sometimes v (e.g., once or twice a month)	Often (e.g., once or twice <u>a week)</u>	All or almost all science <u>lessons</u>
16								
16		a.	Conduct a pre-assessment to determine what students already know	v. 🐠	@	@	@	®
15		a. b.	Conduct a pre-assessment to determine what students already know Observe students and ask questions as they work individually.					
15		b.	Observe students and ask questions as they work individually.	@	@	@	@	®
15		b. c.	Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups.	@	@	@	@	®
15 14 13 12		b. c. d.	Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions.	@	@	@	@	®
15 14 13 12		b. c.	Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are	@	@ @	@ @	@ @	(B) (B)
15 14 13 12		b. c. d. e.	Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it"	(D)	(D)	@ @ @	(A) (A) (A)	(B) (B) (B)
15 14 13 12		b.c.d.e.	Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it" Review student homework.	(B) (B) (B)	(D) (D) (D) (D)	@ @ @	@ @ @	(B) (B) (B) (B)
15 14 13 12		b. c. d. e. f.	Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it" Review student homework. Review student notebooks/journals.	(B)	(0) (0) (0) (0) (0)	@ @ @ @	(A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	(8) (9) (9) (9) (5)
15 14 13 12 11 10 9 8 7		b.c.d.e.	Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it" Review student homework.	(B) (B) (B)	(9) (9) (9) (9) (9)	@ @ @ @ @	(A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	(B) (B) (B) (S) (B)
15 14 13 12		b. c. d. e. f.	Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it" Review student homework. Review student notebooks/journals.	(B)	(0) (0) (0) (0) (0)	@ @ @ @ @	(A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	(B) (B) (B) (S) (B)

27. continued...

Conti	шеи		Rarely (e.g., a few times a	Sometimes (e.g., once or twice	Often (e.g., once or twice	All or almost all science
		<u>Never</u>	<u>year)</u>	a month)	a week)	<u>lessons</u>
i.	Have students do long-term science projects.	@	@	@	@	@
j.	Have students present their work to the class.	@	@	@	@	@
k.	Give predominantly short-answer tests (e.g., multiple choice,					
	true/false, fill in the blank).	@	@	@	@	⑤
1.	Give tests requiring open-ended responses (e.g., descriptions,					
	explanations).	@	@	@	@	@
m.	Grade student work on open-ended and/or laboratory tasks					
	using defined criteria (e.g., a scoring rubric).	@	@	@	@	@
n.	Have students assess each other (peer evaluation).	@	@	@	@	@

28. For the following equipment, please indicate the extent to which each is available, whether or not each is needed, and the extent to which each is integrated in this science class.

					1			I.	Use in	Fully
]	Not at all	l	Readily				Never use	specific parts	integrated
	4	Available	2	Available		Need	led?	in this course	of this course	into this cours
a.	Overhead projector	@	@	@		@	@	@	@	@
b.	Videotape player	@	@	@		@	@	@	@	@
c.	Videodisc player	@	@	@		@	@	@	@	@
d.	CD-ROM player	@	@	@		@	@	@	@	@
e.	Four-function calculators	@	@	@		@	@	@	@	@
f.	Fraction calculators	@	@	@		@	@	@	@	@
g.	Graphing calculators	@	@	@		@	@	@	@	@
h.	Scientific calculators	@	@	@		@	@	@	@	@
i.	Computers	@	@	@		@	@	@	@	@
j.	Computers with Internet connection	@	@	@		@	@	@	@	@
k.	Calculator/computer lab interfacing device	s 🚇	@	@		@	@	@	@	@
1.	Running water in labs/classrooms	@	@	@		@	@	@	@	@
m.	Electric outlets in labs/classrooms	@	@	@		@	@	@	@	@
n.	Gas for burners in labs/classrooms	@	@	@		@	@	@	@	@
ο.	Hoods or air hoses in labs/classrooms	@	@	@		@	@	@	@	@

29. How much of your own money do you estimate you will spend for supplies for this science class this school year (or semester or quarter if not a full-year course)? (Please enter your answer as a 3-digit number rounded to the nearest dollar, i.e., enter \$25.19 as 025. Enter your answer in the spaces to the right, then darken the corresponding oval in each column.)

If none, darken this oval:



30. How much of your own money do you estimate you will spend for your own professional development activities during the period Sept. 1, 1999 - Aug. 31, 2000? (Please enter your answer as a 3-digit number rounded to the nearest dollar, i.e., enter \$25.19 as 025. Enter your answer in the spaces to the right, then darken the corresponding oval in each column.)

If none, darken this oval:



63	31.	Ho	w much control do you have over each of the following for thi	is sci	ence				
62 61 60 59 58 57 56 55 55 54 53 52 51 50 49 48 47 46 44 43 42 41 40 39 38 37 36 36 37 36 37 37 36 37 37 37 37 37 37 37 37 37 37 37 37 37			ss? (Darken one oval on each line.)		No				Strong
61					Control				Control
60			Determining course goals and objectives		@	@	@	@	(5)
59			Selecting textbooks/instructional programs		@	@	@	@	®
58			Selecting other instructional materials		@	@	@	@	®
5/			Selecting content, topics, and skills to be taught		@	@	@	@	®
56		e.	Selecting the sequence in which topics are covered		@	@	@	@	®
55		C			_	_	_	_	_
54			Setting the pace for covering topics		@	@	@	@	®
53		_	Selecting teaching techniques		@	@	@	@	®
52			Determining the amount of homework to be assigned		@	@	@	@	®
51			Choosing criteria for grading students		@	@	@	@	®
40		j.	Choosing tests for classroom assessment		@	@	@	@	®
49									
40	20	TT.		•	4 - 1 - 1 - 1 - 2 (D - 1	1 \			
47	32.	Ho	w much science homework do you assign to this science class	ın a	typical week ? (Darken one	ovai.)			
40		(0.20 min	`i.	2 2 hours O Ma	ma tha	n 2 ho		
40		@	0-30 min) IIIII	2-3 hours	re tna	n 3 ho	urs	
44									
42	220	Λ	a you using one or more commercially published toythooks or	n r00	rome for toaching saionae to	thica	10002		
41	ooa.		e you using one or more commercially published textbooks or arken one oval.)	prog	rains for teaching science to	uns c	1888 !		
40		(Di	arken one ovar.)						
39		Ф	No, SKIP TO SECTION D, PAGE 14						
38		0	Yes, CONTINUE WITH 33b						
37		4	ics, continue with 350						
36									
35	33h	W١	nich best describes your use of textbooks/programs in this class	s? (I	Darken one oval)				
34	330.	**1	nen best deserbes your use of textbooks/programs in this class	3. (1	Sarken one ovar.)				
33		0	Use one textbook or program all or most of the time						
32		Õ	Use multiple textbooks/programs						
31		_	1						
30									
29	34.	Ind	licate the publisher of the one textbook/program used most of	ten b	ov students in this class. (Da	rken o	ne ova	al.)	
28			r		,			. ,	
27		@	Addison Wesley Longman, Inc/Scott Foresman	@	Modern Curriculum Press				
		@	Benjamin/Cummings Publishing Company, Inc.	@	Mosby/The C.V. Mosby C	ompai	ıv		
25		@	Brooks/Cole Publishing Co	@	Nystrom		J		
24		@	Carolina Biological Supply Co	@	Optical Data Corporation				
23		®	Delta Education	@	Prentice Hall, Inc.				
22		@	Encyclopaedia Britannica	@	Saxon Publishers				
21		@	Globe Fearon, Inc / Cambridge	@	Scholastic, Inc.				
20		@	Harcourt Brace/Harcourt, Brace & Jovanovich	@	Silver Burdett Ginn				
19		@	Holt, Rinehart and Winston, Inc	@	South-Western Educationa	l Publ	ishing		
18		@	Houghton Mifflin Company/McDougal Littell/D.C. Heath	®	Steck-Vaughn Company				
17		@	It's About Time	@	Videodiscovery, Inc				
16		@	J.M. LeBel Enterprises	@	W.H. Freeman				
15		@	Kendall Hunt Publishing	@	Wadsworth Publishing				
14		@	Lawrence Hall of Science		_				
13		15	McGraw-Hill/Merrill Co (including CTB/McGraw-Hill,	@	Other, please specify:				
12			Charles Merrill Publishing, Glencoe/McGraw-Hill,						
11			Macmillan/McGraw-Hill, McGraw-Hill School						
10			Division, Merrill/Glencoe, SRA/McGraw-Hill)						
26 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8			,						
8									

35a.	Please indicate the tit students in this class.		ication year of the on	e textbook/program	used most often by	For office use only
	Title:					@ @ @ @ @ @ @ @ @ @ @ @
	First Author:					@@@
	Publication Year:	Editio	on:			\$\text{\tince{\text{\te}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tett{\text{\tett{\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi}\text{\texi}\text{\text{\texi}\text{\text{\text{\tetitx}\text{\texittt{\text{\texi}\text{\texit{\texi}\text{\text{\texit{\texi}\texit{\texi}\til\text{\texitt{\texi}\text{\texi}\tex
35b.	Approximately what (Darken one oval.)	percentage of this to	extbook/program will	you "cover" in this	course?	@ @ @ @ @ @
	© < 25%	25-49%	50-74%	-90% >90%		
35c.	How would you rate	the overall quality o	of this textbook/progra	am? (Darken one ov	al.)	
	Very Poor	Poor	Fair	© Good	Very Good	Excellent
D. Y	our Most Recent	t Science Lessor	n in This Class			
instru	tions 36-38 refer to th action in this class. (Pes provided, then dark	lease enter your ans	swers as 3-digit numb	ers, i.e., if 30 minute		
36a.		epartmentalized and er for the entire leng	e most recent science d other non-self-conta gth of the class period	ained		
36b.		•	on the following: hould equal your resp	oonse in 36a.)		
	Daily routines, interruptions, and other non-instructional activities	Whole class lecture/discussions	3. Individual students reading textbooks, completing worksheets, etc.	4. Working with hands-on, manipulative, or laboratory materials	5. Non-laboratory small group work	6. Other
	@ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @	© © © © © © © © © © © © © © © © © © ©	(a) (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0. Onlar
	@ @	@ @	@ @	@ @	@ @	

11/

63	37.	Which of the following activities took place during that	t scienc	ee lesson? (Darken all that	apply.)
62 61 60 59 58 57 56 55 52 51 50 49 48 47 46 45 44 41 40 39 38 37 36 35 34 37 36 37 36 37 37 36 37 37 37 38 38 38 38 38 38 38 38 38 38 38 38 38		Lecture			
60		O Discussion			
59		Students completing textbook/worksheet problems			
58		Students doing hands-on/laboratory activities			
57		Students reading about science			
56		Students working in small groups			
55		Students using calculators			
54		Students using computers			
53		Students using other technologies			
52		Test or quiz			
51		One of the above			
50					
49	20	D'Ideale and a decreation of the second decrease of the second decre		. 41 4 . 1 9	. O N.
40	38.	Did that lesson take place on the most recent day you n	net with	n that class?	es O No
46					
45	Tr I	Domoguaphia Information			
44	E. I	Demographic Information			
43					
42	39.	Indicate your sex:	40.	Are you: (Darken all tha	t apply)
41		·		• `	
40		Male		American Indian or A	Alaskan Native
39		Female		Asian	
38				Black or African-An	nerican
37				Weight in the distribution of the distribut	
36					Other Pacific Islander
35				White	
34					
32	41	In what year ware you harn?	42	House many waare have we	
31	41.	In what year were you born? (Enter the last two digits of the	42.	How many years have yo taught at the K-12 level p	
30		year you were born; e.g., if you		this school year? (Please	
29		were born in 1959, enter 59.		your answer in the spaces	
28		Please enter your answer in the		right, then darken the	@ @
27		spaces to the right, then darken		corresponding oval in each	
=		the corresponding oval in each		column.)	(B) (B)
25		column.)		,	
24		@ @			@
23		® ®			®
22		(2)			3
21					
20	43.	If you have an email address, please write it here:			
19	4.4	When did one consists this constitution in 9 Deter	,	1	FOR OFFICE USE ONLY Please do not write in this area.
17	44.	When did you complete this questionnaire? Date:	/ _ onth	Day Year	riease do not write in this area.
16	~.			•	000000000000
15		make a photocopy of this questionnaire and ke	-	n case the	
14	origin	al is lost in the mail. Please return the <u>original</u>	to:		
13					
12		2000 National Survey of Science and Mathema	itics E	Education	
11		Westat			@ @ @ @ @ @ @ @ @
10		1650 Research Blvd.			
9		TB120F			
8		Rockville, MD 20850			
7					
26 25 24 23 22 21 20 19 18 17 16 15 14 10 9 8 7 6 5 4		THANK YOU!			
4		PLEASE DO NOT WRITE IN THIS AR	_		[SERIAL]
3					

2000 National Survey of Science and Mathematics Education

Mathematics Questionnaire

You have been selected to answer questions about your <u>mathematics</u> instruction. If you do not currently teach mathematics, please call us toll-free at 1-800-937-8288.

How to Complete the Questionnaire

Most of the questions instruct you to "darken one" answer or "darken all that apply." For a few questions, you are asked to write in your answer on the line provided. Please use a #2 pencil or blue or black pen to complete this questionnaire. Darken ovals completely, but do not stray into adjacent ovals. Be sure to erase or white out completely any stray marks.

Class Selection

Part of the questionnaire (sections C and D) asks you to provide information about instruction in a particular class. If you teach mathematics to more than one class, use the label at the right to determine the mathematics class that has been randomly selected for you to answer about. (If your teaching schedule varies by day, use today's schedule, or if today is not a school day, use the most recent school day.)

If You Have Questions

If you have questions about the study or any items in the questionnaire, call us toll-free at 1-800-937-8288.

Each participating school will receive a voucher for \$50 worth of science and mathematics materials. The voucher will be augmented by \$15 for each responding teacher. In addition, each participating school will receive a copy of the study's results in the spring of 2001.

Thank you very much. Your participation is greatly appreciated. Please return the completed questionnaire to us in the postage-paid envelope:

2000 National Survey of Science and Mathematics Education Westat 1650 Research Blvd. TB120F Rockville, MD 20850

63 62	A.	Tea	cher Opinions								
61	1.	Pl	ease provide your	opinion about each o	of the following stat	ements.					
60 59		(Γ	Oarken one oval on	each line.)			Strongly Disagree	<u>Disagree</u>	No <u>Opinion</u>	Agree	Strong Agre
58		a.	Students learn ma	thematics best in cla	sses with students of	of similar abilities.	@	@	@	@	(5)
57		b.	The testing progra	am in my state/distri	ct dictates what mat	thematics content I tead	ch. 🥨	@	@	@	®
56		c.	I enjoy teaching n	nathematics.			@	@	@	@	@
55		d.	I consider myself	a "master" mathema	tics teacher.		@	@	@	@	@
54		e.	I have time during	g the regular school	week to work with i	ny colleagues on					
53			mathematics curri	iculum and teaching			@	@	@	@	@
52		f.	My colleagues an	d I regularly share id	leas and materials r	elated to mathematics					
51			teaching.				@	@	@	@	@
50		g.		hers in this school re	egularly observe eac	ch other teaching classe	es				
49				and improving instr			@	@	@	@	@
48		h.				ely to making decision	S				
47			about the mathem			,	@	@	@	@	®
46	2 -		C '11'	'd d NOTM C	1 19 (D. 1						
45	2a.	H	ow familiar are you	with the NCTM Sta	<i>indards!</i> (Darken c	one oval.)					
44		Q	Not at all familia	ar, SKIP TO QUEST	TION 3						
43		Q	Somewhat famil	iar							
42		Q	Fairly familiar								
41			Very familiar								
40	21-	DI				:-:			4 ! 41. a. NI	CTM	
39	2b.				ient with the overall	l vision of mathematics	education	describe	a in the N	CIM	
38		Si	andards. (Darken	one ovar.)							
37		St	rongly Disagree	Disagree	No Opinion	Agree	Strongly	Agree			
36			@	@	@	@	0				
35	2 -	т				41 NICTIM C	1		4 4 1.	0	
34	2c.			you implemented re	ecommendations ire	om the NCTM Standar	as in your	matnema	incs teach	ing?	
33		(L	arken one oval.)								
32			Not at all	To a minimal exte	ent To a modera	te extent To a great	at extent				
31			@	@	@	C)				
30											
29	B. '	Tea	cher Backgrou	ınd							
28											
27	3.			well prepared you co			Not				
26		fo	llowing in your ma	thematics instructio	n. (Darken one ova	l on each line.)	dequately	Somewhat	Fairly W	ell V	ery Well
25							repared	Prepared	Prepare	<u>d</u> P	repared
24		a.	_	rior understanding in	nto account when pl	anning curriculum					
23			and instruction				@	@	@		4
22		b.		s' conceptual unders			@	@	@		@
21		c.		coverage of fewer m			@	@	@		@
20		d.		ns between mathema		plines	@	@	@		@
19		e.	Lead a class of s	tudents using invest	igative strategies		@	@	@		@
18		2					_	_	_		_
17		f.	-	of students engaged		-based work	@	@	@		@
16		g.		ork in cooperative l			@	@	@		@
15		h.		ions as students wor			@	@	@		@
14		i.		k as a resource rather		nstructional tool	@	@	@		@
13		j.	Teach groups th	at are heterogeneous	s in ability		@	@	@		@
12							_				
11		k.		who have limited En			@	@	@		@
10		1.		espond to student cu			@	@	@		@
9		m.		ents' interest in mathe			@	@	@		@
8		n.		cipation of females i			@	@	@		@
7		ο.	Encourage partic	cipation of minoritie	s in mathematics		@	@	@		@
6							Question 3	s continue	es on next	page	
5					OT WRITE IN THIS AREA			10		1.1	
3			ന ന ന	@@@@@@@	h			[2	ERIA	니	
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3. *continued...*

•		Not			
		Adequately	Somewhat	Fairly Well	Very Well
		Prepared	Prepared	<u>Prepared</u>	Prepared
p.	Involve parents in the mathematics education of their children	@	@	@	4
q.	Use calculators/computers for drill and practice	@	@	@	@
r.	Use calculators/computers for mathematics learning games	@	@	@	@
s.	Use calculators/computers to collect and/or analyze data	@	@	@	@
t.	Use calculators/computers to demonstrate mathematics principles	@	@	@	@
u.	Use calculators/computers for simulations and applications	@	@	@	@
v.	Use the Internet in your mathematics teaching for general reference	@	@	@	@
w.	Use the Internet in your mathematics teaching for data acquisition	@	@	@	@
х.	Use the Internet in your mathematics teaching for collaborative projects				
	with classes/individuals in other schools	@	@	@	@

4a. Do you have each of the following degrees?

Bachelors	@	Yes	O No
Masters	@	Yes	No
Doctorate	@	Yes	No

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

	Bachelors	Masters	Doctorate
Mathematics	@	<u> </u>	@
Computer Science	@	@	@
Mathematics Education	@	@	@
Science/Science Education	@	@	@
Elementary Education	@	@	@
Other Education (e.g., History Education, Special Education	on) 💿	@	@
Other, please specify	@	@	@

5. Which of the following college courses have you completed? Include both semester hour and quarter hour courses, whether graduate or undergraduate level. Include courses for which you received college credit, even if you took the course in high school. (Darken all that apply.)

MATHEMATICS

- Mathematics for elementary school teachers
- Mathematics for middle school teachers
- Geometry for elementary/middle school teachers
- College algebra/trigonometry/elementary functions
- Calculus
- Advanced calculus
- Q Real analysis
- Oifferential equations
- Geometry
- Probability and statistics
- Abstract algebra
- Number theory
- Q Linear algebra
- Applications of mathematics/problem solving
- Weight in the distribution of the distribut
- Oiscrete mathematics
- Other upper division mathematics

SCIENCES/COMPUTER SCIENCES

- Biological sciences
- Chemistry
- Physics
- Physical science
- Earth/space science
- © Engineering (any)
- Computer programming
- Other computer science

EDUCATION

- General methods of teaching
- Methods of teaching mathematics
- Instructional uses of computers/other technologies
- Supervised student teaching in mathematics

.

]]		Semester (Courses				<u>Qı</u>	uarter C	Courses				
]]	a. Mathematics education		. .	ව ලා ල	<u>0</u> 3	a (മ ത	ത ത	a a c	D (D) (D 3		
!]	b. Calculus	000000								D (D) (
]	c. Statistics	000000								D (D) (
) 	d. Advanced calculus	@ @ @ @ @								20 (2) (3			
) 	e. All other mathematics courses	000000								D Q			
) 	f. Computer science	@ @ @ @ @								D O			
) 	g. Science	000000								D Q			
6. 	Considering all of your undergraduat	e and graduate mathem :	atics o	courses	s. app	roxim:	atelv w	vhat ne	ercent	age we	ere cor	nplete	d at
, ,.]]	each of the following types of institut					TOATITIE	uciy w	viiai p	creent	uge we	10 001	приссе	u ai
	_		0%	10%	20%		40%	50%	60%	<u>70%</u>	80%	90%	1009
] 1	a. Two-year college/community co	llege/technical school	0	@	@	@	@	0	@	0	@	@	0
	b. Four-year college/university		0	@	0	0	@	@	@	@	0	Ф	0
8.	In what year did you last take a forma	al course for college cred	lit in:	(Pleas	se ente	er vou	r answ	ers in	the sr	aces n	rovide	d the	n
0.	darken the corresponding oval in each	_	*11 111.	(1 1003	,. 0110	or your	answ	~10 III	ane sp	aces p	· o viul	.a, mc	
	over the corresponding over in each												
	a. Mathematics	b. The Teaching	of	If you	ı have	never	taken	a cou	rse in	the tea	ching	of	
		Mathematics		-		es, darl					_		9.
										J	•		
	@ @ @	@ @											
	@ @ @	@ @ @ @											
	@ @ @ @	@ @ @ @											
	@ @ @	@ @ @											
	@ @ @	@ @ @											
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	99	® ® ®											
	@ @ @	@ @ @											
	999	® ® ®											
	@ @ @	@ @ @											
0	What is the total among the Colores	have sport and Co.	m o.1 .1	1	ma ·			aa = : : '	ha + ·	ah:	£ 1	h a '	:
9.	What is the total amount of time you			-						_			
	the last 12 months? in the last 3 year												
	include formal courses for which you teachers.) (Darken one oval in each c	_	or tim	e you	spent	hr.ovi(mig p	ioiess	ional	ueveio	pmen	t 101, 01	шег
	teachers.) (Darken one oval in each o	oiuiiii.)											
		Last Last											
	Hours of In-service Education	12 months 3 years											
	None												
	Less than 6 hours	(a)											
	6-15 hours	0 0											
	16-35 hours	0 0											
	More than 35 hours	0 0											
		_											
	PLEASE I	OO NOT WRITE IN THIS AREA											
			D						[SI	ERI	AL1		
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		Semester Courses	Quarter Courses
a.	Mathematics education	® ® ® ® ® ® ®	
b.	Calculus	@ @ @ @ @ @ @ @	@@@@@@@@
c.	Statistics	@ @ @ @ @ @ @ @	@ @ @ @ @ @ @ @
d.	Advanced calculus	@ @ @ @ @ @ @ @	@@@@@@@ @
e.	All other mathematics courses	@ @ @ @ @ @ @ @	@@@@@@@@
f.	Computer science	@ @ @ @ @ @ @ @	@@@@@@@@
g.	Science	@	@ @ @ @ @ @ @

		0%	10%	20%	30%	40%	<u>50%</u>	60%	70%	80%	90%	100%
a.	Two-year college/community college/technical school	0	0	@	@	0	0	@	0	0	0	0
b.	Four-year college/university	0	@	@	@	@	@	@	0	0	0	@

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	@	@	@
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	@	@	@
	@	@	Ф
	@	@	@
	ത	ത	ത



Hours of In-service Education	Last 12 months	Last 3 years		
None	@	@		
Less than 6 hours	@	@		
6-15 hours	@	@		
16-35 hours	@	@		
More than 35 hours	0	@		

10.	I	n the past 12 months, have you:					
	(1	Darken one oval on each line.)					
	a.		Yes	0	No		
	b.	Mentored another teacher as part of a formal arrangement that is recognized or					
		7 6 1	Yes	@	No		
	c.		Yes	0	No		
	d.	Served on a school or district mathematics curriculum committee?	Yes	@	No		
	e.	Served on a school or district mathematics textbook selection committee?	Yes	@	No		
11.	Ţ,	n the past 3 years , have you participated in any of the following activities related to mathematics	or th	e teachi	ng of		
11.		nathematics? (Darken one oval on each line.)	or th	e teachin	16 01		
	a.	Taken a formal college/university mathematics course. (Please do not include courses taken as		. . .		_	NT.
	1.	part of your undergraduate degree.)		Yes	(O	NO
	b.	Taken a formal college/university course in the teaching of mathematics. (Please do not include courses taken as part of your undergraduate degree.)		Yes	(No
	c.	Observed other teachers teaching mathematics as part of your own professional development					
		(formal or informal).	0	Yes	(D	No
	d.	Met with a local group of teachers to study/discuss mathematics teaching issues on a regular ba	asis. 🤇	Yes	(D	No
	e.	Collaborated on mathematics teaching issues with a group of teachers at a distance using					
		telecommunications.	C	Yes	(@	No
	f.	Served as a mentor and/or peer coach in mathematics teaching, as part of a formal arrangement	t				
		that is recognized or supported by the school or district. (Please do not include supervision of					
		student teachers.)	0	Yes	(No
	g.	Attended a workshop on mathematics teaching.		P Yes		о Ф	
	h.	Attended a national or state mathematics teacher association meeting.		P Yes		<u>ф</u>	
	i.	Applied or applying for certification from the National Board for Professional Teaching Stand		_ 105		_	110
		(NBPTS).	_	Yes	(D	No
	j.	Received certification from the National Board for Professional Teaching Standards (NBPTS).		P Yes		D	
	3	·					
0	00 4:	one 12a 12a ook about vous professional development in the last 2 years. If you have been t	-aaah:	na fau f		han	. 2
_		ons 12a-12c ask about your professional development in the last 3 years. If you have been t please answer for the time that you have been teaching.	eaciii	ng tor i	ewert	ııaıı	13
,	,]	brance and the rate and for the coordinate.					
12a	. T	Think back to 3 years ago . How would you rate your level of					
		eed for professional development in each of these areas at that					
		ime? (Darken one oval on each line.)	nor	Moder			antial
	Г		eed	Nee	<u>u</u>		eed
		Deepening my own mathematics content knowledge	_	Q			5
		Understanding student thinking in mathematics		@		Q	
	L	earning how to use inquiry/investigation-oriented teaching strategies	٧	@		Q	وي
	L	earning how to use technology in mathematics instruction	D	@		Q	D .
		earning how to assess student learning in mathematics	D.	@		Q	D C
		earning how to teach mathematics in a class that includes students					
		with special needs	0	@		a	

63 62 61	12b.	Considering all the professional development you have participated in following emphasized? (Darken one oval on each line.)	during the last 3	years , ho	w muc	h wa		n of the Γο a great
				at all				extent
60 59 58 57 56		Deepening my own mathematics content knowledge		@	<u>@</u>	@	0	\bigcirc
58		Understanding student thinking in mathematics		0	<u>@</u>	0	0	@
57		Learning how to use inquiry/investigation-oriented teaching strategies		@	@	@	0	0
56 55					_	_	_	_
54		Learning how to use technology in mathematics instruction		@	@	@	@	@
53		Learning how to assess student learning in mathematics Learning how to teach mathematics in a class that includes students with	th anacial needs	.	@	0	@	<u>Ф</u>
52		Learning now to teach mathematics in a class that includes students will	in special needs	₩,	w)	æ)	w	æ)
52 51								
50								
50 49 48 47 46 45 44 43 42 41	12c.	Considering all your professional development in the last 3 years, how	would you rate it	S				
48		impact in each of these areas? (Darken one oval on each line.)	-					
47			Little or	Confirme				l me to change
46			no impact	was alread		5	my tea	ching practice
45		Deepening my own mathematics content knowledge	@	Q				\bigcirc
44		Understanding student thinking in mathematics	@	Q				@
43		Learning how to use inquiry/investigation-oriented teaching strategies	@	Q)			@
42		I coming how to use technology in mothematics instruction	(a	`			
40		Learning how to use technology in mathematics instruction Learning how to assess student learning in mathematics	Ф	Q Q				@
39		Learning how to assess student learning in mathematics Learning how to teach mathematics in a class that includes	•	~	•			<u> </u>
38		students with special needs	@	Q)			0
37		otavillo il tili opootal livodo		_				
35								
36 35 34 33	13a.	Do you teach in a self-contained class ? (i.e., you teach multiple subje	cts to the same cla	iss of stud	lents al	l or 1	nost c	of the day.)
32		Wes, CONTINUE WITH QUESTIONS 13b AND 13c						
31		No, SKIP TO QUESTION 14						
29								
28								
27								
26	13b.	For teachers of self-contained classes: Many teachers feel better qual	lified to teach som	e subject	areas t	han c	others	How well
25		qualified do you feel to teach each of the following subjects at the grad		•				
24		included in your curriculum? (Darken one oval on each line.)						
23			Not Well	Adequatel			Well	
22			Qualified	Qualified	1		lified	
21		a. Life science	@	@			3	
20		b. Earth science	@	@			3)	
18		c. Physical science d. Mathematics	@	@			3) 3)	
17		d. Mathematics e. Reading/Language Arts	@	@			<u>s</u>	
16		f. Social Studies	@	@			3	
15		i. Boeiui Buudes						
14								
24 23 22 20 19 18 17 16 15 14 13 12 11 10 9								
12								
11								
10								
9								
7								

[SERIAL]

13c. *For teachers of self-contained classes*: We are interested in knowing how much time your students spend studying various subjects. In a typical week, how many days do you have lessons on each of the following subjects, and how many minutes long is an average lesson? (*Please indicate "0" if you do not teach a particular subject to this class*. Please enter your answer in the spaces provided, then darken the corresponding oval in each column. Enter the number of minutes as a 3-digit number; e.g., if 30 minutes, enter as 030.)

Ma	athematics	;	Science	Soc	ial Studies	Reading	/Language Arts
Days		Days		Days		Days	
Per	Approximate	Per	Approximate	Per	Approximate	Per	Approximate
Week	Minutes Per Day						
@	@ @	@	@ @	@	@ @	@	@@
@	@@@	@	@@@	@	@@@	@	@ @ @
@	@ @	@	@ @	@	@ @	@	@ @ @
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@	@ @	@	@ @	@	@ @	@	ത ത
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	@ @		@ @		@		@ @
	@ @		@ @		@ @		@ @

NOW GO TO SECTION C, PAGE 8.

- 14. Which of these categories best describes the way **your** classes at this school are organized? (Darken one oval.)
 - a. Departmentalized Instruction—you teach subject matter courses (including mathematics, and perhaps other courses) to several different classes of students all or most of the day.
 - b. Elementary Enrichment Class—you teach only mathematics in an elementary school.
 - © c. **Team Teaching**—you collaborate with one or more teachers in teaching multiple subjects to the same class of students; your assignment includes mathematics.
- 15a. *For teachers of non-self-contained classes:* Within mathematics, many teachers feel better qualified to teach some topics than others. How well qualified 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 curriculum? (Darken one oval on each line.)

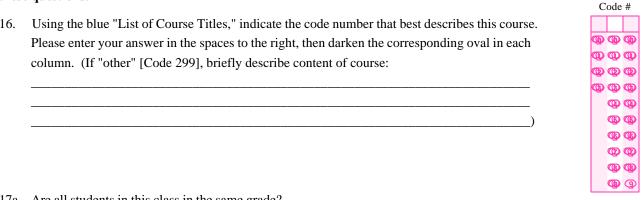
		Not Well Qualified	Adequately Qualified	Very Well <u>Qualified</u>
a.	Numeration and number theory	@	@	3
b.	Computation	@	@	@
c.	Estimation	@	@	@
d.	Measurement	@	@	@
e.	Pre-algebra	@	@	@
f.	Algebra	@	@	@
g.	Patterns and relationships	@	@	@
h.	Geometry and spacial sense	@	@	@
i.	Functions (including trigonometric functions) and pre-calculus concepts	@	@	@
j.	Data collection and analysis	@	@	@
k.	Probability	@	@	@
1.	Statistics (e.g., hypothesis tests, curve fitting and regression)	@	@	@
m.	Topics from discrete mathematics (e.g., combinatorics, graph theory, recursion)	@	@	@
n.	Mathematical structures (e.g., vector spaces, groups, rings, fields)	@	@	@
ο.	Calculus	@	@	@
p.	Technology (calculators, computers) in support of mathematics	@	@	@

- 15b. *For teachers of non-self-contained classes*: For each class period you are currently teaching, regardless of the subject, give *course title*, the *code-number* from the enclosed blue "List of Course Titles" that best describes the content addressed in the class, and the *number of students* in the class. (Please enter your answers in the spaces provided, then darken the corresponding oval in each column. If you teach more than one section of a course, record each section separately below.)
 - Note that if you have more than 39 students in any class, you will not be able to darken the ovals, but you should still write the number in the boxes.
 - If you teach more than 6 classes per day, please provide the requested information for the additional classes on a separate sheet of paper.

Cours	e Title	Course Title	e	Course Tit.	le
Code #	# of Students	Code # #	of Students	Code #	# of Students
@ @ @	@ @	@ @	@	@ @ @	@ @
@ @ @	@ @	@ @ @	@ @	@ @ @	@ @
@ @ @	@ @	@ @ @	@ @	@@@	@ @
@ @ @	@ @	@ @ @	@ @	@ @ @	@ @
@ @	@	@ @	@	@ @	@
®	©	®	©	® ®	®
®	®	®	®	® ®	®
@ @	@	@ @	@	@ @	@
®	®	® ®	®	® ®	(2)
(2) (2)	©	@ @	@	@ @	(2)
Cours		Course Title		Course Tit	
Code #	# of Students	Code # #	f of Students	Code #	# of Students
@ @ @	@ @	@ @	@ @	@ @ @	@ @
@ @ @	@ @	@ @ @	@ @	@ @ @	@ @
@ @ @	@ @	@ @ @	@ @	@ @ @	@ @
@ @ @	@ @	@ @ @	@ @	@ @ @	@ @
@ @	@	(A) (A)	@	@ @	@
®	©	(B)	©	® ®	®
® ®	®	(2)	®	® ®	®
@ @	@	@ @	@	@ @	@
®	®	®	®	® ®	(2)
@	(2)	(2)	@	(2)	@

C. Your Mathematics Teaching in a Particular Class

The questions in this section are about a particular mathematics class you teach. If you teach mathematics to more than one class per day, please consult the label on the front of this questionnaire to determine which mathematics class to use to answer these questions.

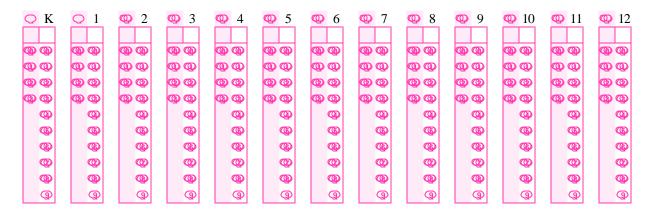


17a. Are all students in this class in the same grade?



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17b. What grades are represented in this class? (Darken all that apply.) For each grade noted, indicate the number of students in this class in that grade. Write your answer in the space provided, then darken the corresponding oval in each column. Note that if more than 39 students in this class are in a single grade, you will not be able to darken the ovals, but you should still write the number in the boxes.



18a. What is the total number of students in this class? Write your answer in the space provided, then darken the corresponding oval in each column. Note that if you have more than 39 students in this class, you will not be able to darken the ovals, but you should still write the number in the boxes.



63				the following categories.		· ·
62 61 60 59 58 57 56		spaces provided, then da		ions about how to classif g oval in each column.)	y particular students.	(Please enter your
58						
57			RACE/ET	HNICITY		
55					Native Hawaiian or	
54 53	American Indian or Alaskan Native	Asian	Black or African-American	Hispanic or Latino (any race)	Other Pacific Islander	White
52 51 50 49 48 47 46 45 41 40 39 38 37 36 36 34 33 32 31 30 29 28	Male Female Male Male Female Male Male Female Male Male Female Male Male Male Male Male Male Male Male	and skip to quest weekly schedule is nor	tion 20. What is the use	Male Female Q	(in minutes) of daily c ample 1. If you are ur	lass meetings for
31					Examples	
29		Week 1	Week 2	Exa		xample 2
28						
27	Monday			Week 1	Week 2 Week	Week 2
26	Wonday		·	Week 145	Week 2 Week 3	Week 2
26 25	Tuesday			45 45	<u>90</u>	Week 2
26 25 24 23	Tuesday Wednesday			45		
26 25 24 23 22	Tuesday Wednesday Thursday			45 45	<u>90</u>	
26 25 24 23 22 21 20	Tuesday Wednesday			45 45	<u>90</u>	
26 25 24 23 22 21 20 19	Tuesday Wednesday Thursday			45		
26 25 24 23 22 21 20 19 18	Tuesday Wednesday Thursday		For of	45		
26 25 24 23 22 21 20 19 18 17 16 15 14	Tuesday Wednesday Thursday		For of 10 10 10 10 10 10 10 10 10 10 10 10 10	45 45 45 45 45 45 45 45 45 45 45 45 45 4		
26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9	Tuesday Wednesday Thursday Friday		00000000000000000000000000000000000000	45 45 45 45 45 45 45 00 45 00 00 00 00 00 00 00 00 00 00 00 00 00	90 90 90 90 90 90 90 90 90 90	
26 25 24 23 22 21 20 19 18 17 16 15 14 10 9 8 7 6 5 4 3 2	Tuesday Wednesday Thursday Friday	(3) (3)	00000000000000000000000000000000000000	45 45 45 45 45 45 45 00 45 00 00 00 00 00 00 00 00 00 00 00 00 00	90 90 90 90 90 90 90 90 90 90	

20.	Are students assigned to this class by level of ability? (Darken one over	al.)	Yes	O N	lo	
21.	Which of the following best describes the ability of the students in this (Darken one oval.)	class rel	ative to oth	er students i	in this schoo	1?
	 Fairly homogeneous and low in ability Fairly homogeneous and average in ability Fairly homogeneous and high in ability Heterogeneous, with a mixture of two or more ability levels 					
22.	Indicate if any of the students in this mathematics class are formally c (Darken all that apply.)	lassified	as each of t	he followin	g:	
	Limited English Proficiency Learning Disabled Mentally Handicapped Physically Handicapped, please specify handicap(s):					
23.	Think about your plans for this mathematics class for the entire course	. How				
	much emphasis will each of the following student objectives receive?			Minimal	Moderate	Heavy
	(Darken one oval on each line.)		None	Emphasis	Emphasis	<u>Emphasis</u>
	a. Increase students' interest in mathematics		@	@	@	3
	b. Learn mathematical concepts		@	@	@	@
	c. Learn mathematical algorithms/procedures		@	@	@	@
	d. Develop students' computational skills		@	@	@	@
	e. Learn how to solve problems		@	@	@	@
	f. Learn to reason mathematically		@	@	@	®
	g. Learn how mathematics ideas connect with one another		@	@	@	@
	h. Prepare for further study in mathematics		@	@	@	@
	i. Understand the logical structure of mathematics		Q	@	Q	©
	j. Learn about the history and nature of mathematics		©	@	©	©
	k. Learn to explain ideas in mathematics effectively		Q	@	©	©
	Learn how to apply mathematics in business and industry		©	@	©	<u></u>
	n. Learn to perform computations with speed and accuracy		@	@	_	<u></u>
	n. Prepare for standardized tests		_ 	@	_ 	_ @
			_	_	_	_
			Rarely	Sometimes	Often	All or
24.	About how often do you do each of the following in your		(e.g., a few		(e.g., once	almost all
	mathematics instruction? (Darken one oval on each line.)		times a	or twice	or twice	mathematics
		<u>Never</u>	<u>year)</u>	a month)	<u>a week)</u>	lessons
	a. Introduce content through formal presentations	@	@	@	@	©
	b. Pose open-ended questions	@	@	@	@	©
	c. Engage the whole class in discussions	@	@	@	@	@
	d. Require students to explain their reasoning when giving an answer	@	@	@	Q	®
	e. Ask students to explain concepts to one another	@	@	@	@	@
	f. Ask students to consider alternative methods for solutions	@		@	@	®
	g. Ask students to use multiple representations (e.g., numeric,					
		@	@	@	@	®
	graphic, geometric, etc.) h. Allow students to work at their own pace	@	@	@	@	@
	i. Help students see connections between mathematics and other	•	•	•	•	•
	disciplines	@	@	@	@	©
	j. Assign mathematics homework	@	©	@	@	@
	k. Read and comment on the reflections students have written, e.g.,	-	-		-	
	in their journals	ത	@	@	@	©
	PLEASE DO NOT WRITE IN THIS AREA	-				
				[SERIA	\L]

63 62 61 60	25.		about how often do students in this mathematics class take part in the following types of activities? (Darken one oval on each line.)	<u>Never</u>	Rarely (e.g., a few times a <u>year)</u>	Sometimes (e.g., once or twice <u>a month)</u>	Often (e.g., once or twice <u>a week)</u>	All or almost all mathematics <u>lessons</u>
59		a.	Listen and take notes during presentation by teacher	@	@	@	@	(B)
58		b.	Work in groups	@	<u> </u>	<u>@</u>	Q	©
57			Read from a mathematics textbook in class	@	©	@	@	©
56		C.				_	_	_
00		d.	Read other (non-textbook) mathematics-related materials in class	@	@	@	@	®
54		e.	Engage in mathematical activities using concrete materials	@	@	@	@	®
53		f.	Practice routine computations/algorithms	@	@	@	@	⑤
52		g.	Review homework/worksheet assignments	@	@	@	@	@
51		h.	Follow specific instructions in an activity or investigation	@	@	@	<u>a</u>	(3)
50		i.	Design their <i>own</i> activity or investigation	@	ø	<u> </u>	a a	©
49		j.	Use mathematical concepts to interpret and solve applied problems	@	<u> </u>	@	Q	©
48		J.	Ose mathematical concepts to interpret and solve applied problems	₩.	•	•	•	<u> </u>
40		1	Annual distance of the standard of the standar	<i>(</i> **)	A	A	7	
47		k.	Answer textbook or worksheet questions	@	@	@	@	⑤
46		1.	Record, represent, and/or analyze data	@	@	@	@	®
45		m.	Write reflections (e.g., in a journal)	@	@	@	@	©
44		n.	Make formal presentations to the rest of the class	@	@	@	@	®
43		o.	Work on extended mathematics investigations or projects (a week					
42			or more in duration)	@	@	@	@	(3)
41		p.	Use calculators or computers for learning or practicing skills	@	@	@	@	®
40		q.	Use calculators or computers to develop conceptual understanding	@	@	@	@	(3)
39		r.	Use calculators or computers as a tool (e.g., spreadsheets, data					
38			analysis)	@	@	@	@	®
37			unurysis)					
35 34 33	26.		about how often do students in this mathematics class use alculators/computers to: (Darken one oval on each line.)		Rarely (e.g., a few	Sometimes (e.g., once	Often (e.g., once	All or almost all
32				Never	times a	or twice a month)	or twice a week)	mathematics lessons
32		a	Do drill and practice		times a year)	or twice a month)	or twice a week)	mathematics <u>lessons</u>
31		a.	Do drill and practice Demonstrate methometics principles	@	times a year)	or twice a month)	or twice a week)	mathematics <u>lessons</u>
32 31 30		b.	Demonstrate mathematics principles	@	times a vear) ©	or twice a month)	or twice a week)	mathematics <u>lessons</u> (5)
61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 40 39 38 37 36 35 34 33 32 31 30 29		b. c.	Demonstrate mathematics principles Play mathematics learning games	(9)	times a year) (2) (3)	or twice a month)	or twice a week)	mathematics lessons 5 8
28		b. c. d.	Demonstrate mathematics principles Play mathematics learning games Do simulations	(B)	times a year) ② ② ② ②	or twice a month) (a) (b) (c) (d) (d) (d)	or twice a week) a a a a a a a a a a a	mathematics lessons 5 6 8 8
		b. c. d. e.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes	(B) (B) (B) (B)	times a year) (1) (2) (3) (4) (5) (6) (7) (8) (9) (9) (9) (9) (9)	or twice a month) (a) (b) (c) (d) (d) (d) (d) (d) (d) (d) (d)	or twice a week) a a a a a a a a a a a a	mathematics lessons (5) (8) (9) (9)
28		b.c.d.e.f.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data	(B)	times a year) (a) (b) (c) (d) (d) (d) (d) (d) (e) (e) (e) (f) (f) (f) (f) (f) (f) (f) (f) (f) (f	or twice a month) a a a a a a a a a a a a a a a a a a	or twice a week)	mathematics lessons (5) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9
28 27 26 25		b. c. d. e. f.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations		times a year) (D) (D) (D) (D) (D) (D) (D) (D) (D) (or twice a month) a a a a a a a a a a a a a	or twice a week) a a a a a a a a a a a a a	mathematics lessons (5) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9
28 27 26 25		b.c.d.e.f.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data	(B)	times a year) (a) (b) (c) (d) (d) (d) (d) (d) (e) (e) (e) (f) (f) (f) (f) (f) (f) (f) (f) (f) (f	or twice a month) a a a a a a a a a a a a a a a a a a	or twice a week)	mathematics lessons (5) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9
28 27 26 25 24 23 22 21 20 19	27.	b. c. d. e. f. g. h.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations		times a year) (D) (D) (D) (D) (D) (D) (D) (D) (D) (or twice a month) a month a	or twice a week) a week) a week) a week) a week) a week)	mathematics lessons S S S S S S S S S S S S S S S S S S
28 27 26 25 24 23 22 21 20 19	27.	b. c. d. e. f. g. h.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations Take a test or quiz Iow often do you assess student progress in mathematics in each of the following ways? (Darken one oval on each line.)	(1) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	times a year) (a) (b) (c) (c) (c) (c) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	or twice a month) a month	or twice a week) a week) a often (e.g., onc or twice a week)	mathematics lessons 5 6 8 8 8 8 8 4 All or almost all mathematic lessons
28 27 26 25 24 23 22 21 20 19 18	27.	b. c. d. e. f. g. h.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations Take a test or quiz Iow often do you assess student progress in mathematics in each of me following ways? (Darken one oval on each line.) Conduct a pre-assessment to determine what students already know	(B)	times a year) (a) (b) (c) (c) (c) (c) (c) (c) (d) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	or twice a month) (a) (a) (a) (a) (a) (a) (a) (a) (a) (or twice a week)	mathematics lessons 5 6 6 6 6 6 6 6 6 6 6 6 6
28 27 26 25 24 23 22 21 20 19 18	27.	b. c. d. e. f. g. h.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations Take a test or quiz Iow often do you assess student progress in mathematics in each of the following ways? (Darken one oval on each line.) Conduct a pre-assessment to determine what students already know Observe students and ask questions as they work individually.	(B)	times a year) (a) (b) (c) (c) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	or twice a month) (a) (a) (a) (a) (a) (a) (a) (a) (b) (c.g., once or twice a month) (a)	or twice a week) a week) a week) a week) a week) a week)	mathematics lessons (5) (8) (8) (8) (9) (9) (9) (9) (9) (10) (10) (10) (10) (10) (10) (10) (10
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28 27 26 25 24 23 22 21 20 19 18 17 16 15	27.	b. c. d. e. f. g. h. H th a. b. c.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations Take a test or quiz Tow often do you assess student progress in mathematics in each of the following ways? (Darken one oval on each line.) Conduct a pre-assessment to determine what students already know Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups.	(B)	times a year) (a) (b) (c) (c) (c) (c) (d) (d) (e) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	or twice a month) a month	or twice a week) a week) a week) a week) a week a week a week)	mathematics lessons (5) (8) (8) (8) (8) (8) (8) (8) (8) (8) (8
28 27 26 25 24 23 22 21 20 19 18 17 16 15	27.	b. c. d. e. f. g. h. H. th. a. b. c. d. e.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations Take a test or quiz Iow often do you assess student progress in mathematics in each of the following ways? (Darken one oval on each line.) Conduct a pre-assessment to determine what students already known Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it"	(B)	times a year) (a) (b) (c) (c) (c) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	or twice a month) (a) (a) (a) (a) (a) (a) (a) (a) (a) (or twice a week) a a a a a a a a a a a a a	mathematics lessons (5) (8) (8) (8) (8) (8) (8) (9) (9) (10) (10) (10) (10) (10) (10) (10) (10
28 27 26 25 24 23 22 21 20 19 18 17 16 15	27.	b. c. d. e. f. g. h. H. th. a. b. c. d. e. f.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations Take a test or quiz Tow often do you assess student progress in mathematics in each of the following ways? (Darken one oval on each line.) Conduct a pre-assessment to determine what students already known Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it" Review student homework.	(B)	times a year) (a) (b) (c) (c) (c) (c) (d) (d) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	or twice a month) (a) (a) (a) (a) (a) (a) (a) (a) (a) (or twice a week)	mathematics lessons (5) (8) (8) (8) (8) (8) (8) (8) (8) (8) (8
28 27 26 25 24 23 22 21 20 19 18 17 16 15	27.	b. c. d. e. f. g. h. Hth a. b. c. d. e. f. g.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations Take a test or quiz Town often do you assess student progress in mathematics in each of the following ways? (Darken one oval on each line.) Conduct a pre-assessment to determine what students already known Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it" Review student homework. Review student notebooks/journals.	(B)	times a year) (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	or twice a month) a month	or twice a week) a week)	mathematics lessons (5) (8) (8) (8) (9) (9) (9) (9) (10) (10) (10) (10) (10) (10) (10) (10
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28 27 26 25 24 23 22 21 20 19 18 17 16 15	27.	b. c. d. e. f. g. h. i.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations Take a test or quiz Tow often do you assess student progress in mathematics in each of the following ways? (Darken one oval on each line.) Conduct a pre-assessment to determine what students already known Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it" Review student homework. Review student notebooks/journals. Review students do long-term mathematics projects.	(B)	times a year) ② ② ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③	or twice a month) a month a	or twice a week) a o o o o o o o o o o o o	mathematics lessons (5) (8) (8) (8) (8) (8) (8) (8) (8) (8) (8
28 27 26 25 24 23 22 21 20 19 18 17 16 15	27.	b. c. d. e. f. g. h. i. j.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations Take a test or quiz Tow often do you assess student progress in mathematics in each of the following ways? (Darken one oval on each line.) Conduct a pre-assessment to determine what students already known Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it" Review student homework. Review student notebooks/journals. Review students do long-term mathematics projects. Have students present their work to the class.	(B)	times a year) ② ② ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③ ③	or twice a month) (a) (a) (a) (a) (a) (a) (a) (a) (a) (or twice a week) a week) a week) a week) a week) or twice a week) a week) a week)	mathematics lessons (5) (8) (8) (8) (8) (8) (8) (8) (8) (8) (8
28 27 26 25 24 23 22 21 20 19 18 17 16	27.	b. c. d. e. f. g. h. i.	Demonstrate mathematics principles Play mathematics learning games Do simulations Collect data using sensors or probes Retrieve or exchange data Solve problems using simulations Take a test or quiz Tow often do you assess student progress in mathematics in each of the following ways? (Darken one oval on each line.) Conduct a pre-assessment to determine what students already known Observe students and ask questions as they work individually. Observe students and ask questions as they work in small groups. Ask students questions during large group discussions. Use assessments embedded in class activities to see if students are "getting it" Review student homework. Review student notebooks/journals. Review students do long-term mathematics projects.	(B)	times a year) (a) (b) (c) (c) (c) (c) (d) (d) (d) (d) (e) (e) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	or twice a month) a month a	or twice a week) (a) (a) (a) (a) (a) (a) (a) (a) (a) (mathematics lessons (5) (8) (8) (8) (8) (8) (8) (8) (8) (8) (8

27.	C	ontinued	<u>Never</u>	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice <u>a month)</u>	Often (e.g., once or twice <u>a week)</u>	All or almost all mathematics <u>lessons</u>
	1.	Give tests requiring open-ended responses (e.g., descriptions, explanations).	@	@	@	@	⑤
	m.	Grade student work on open-ended and/or laboratory tasks using defined criteria (e.g., a scoring rubric).	@	©	®	@	®
	n.	Have students assess each other (peer evaluation).	@	©	@	@	©

28. For the following equipment, please indicate the extent to which each is available, whether or not each is needed, and the extent to which each is integrated in this mathematics class.

	C							USE III	runy
]	Not at al	1	Readily			Never use	specific parts	integrated
	4	Available	<u>e</u>	Available	<u>Nee</u>	ded?	in this course	of this course	into this course
a.	Overhead projector	@	@	@	@	@	@	@	3
b.	Videotape player	@	@	@	@	@	@	@	@
c.	Videodisc player	@	@	@	@	@	@	@	@
d.	CD-ROM player	@	@	@	@	@	@	@	@
e.	Four-function calculators	@	@	@	@	@	@	@	@
f.	Fraction calculators	@	@	@	@	@	@	@	@
g.	Graphing calculators	@	@	@	@	@	@	@	@
h.	Scientific calculators	@	@	@	@	@	@	@	@
i.	Computers	@	@	@	@	@	@	@	@
j.	Calculator/computer lab interfacing devices	s 🐠	@	@	@	@	@	@	@
k.	Computers with Internet connection	@	@	@	@	@	@	@	@

29. How much of your own money do you estimate you will spend for supplies for this mathematics class this school year (or semester or quarter if not a full-year course)? (Please enter your answer as a 3-digit number rounded to the nearest dollar, i.e., enter \$25.19 as 025. Enter your answer in the spaces to the right, then darken the corresponding oval in each column.)

If none, darken this oval:

How much of your own money do you estimate you will spend for your own **@** @ @ professional development activities during the period Sept. 1, 1999 - Aug. 31, 2000? **@** @ @ (Please enter your answer as a 3-digit **@ @ @** ത്ര ത്ര ത്ര number rounded to the nearest dollar, i.e., **® ® ®** enter \$25.19 as 025. Enter your answer in **@** @ @ the spaces to the right, then darken the **@** @ @ corresponding oval in each column.) **® ® ®**

If none, darken this oval:

6			
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	ത്ര	ത	യ
	©	@	©
	@	@	@
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	@	@	@
	ത	ത	ത

31. How much control do you have over each of the following for this mathematics class? (Darken one oval on each line.)

		No <u>Control</u>	Ĺ			Strong Control
a.	Determining course goals and objectives	@	@	@	@	⑤
b.	Selecting textbooks/instructional programs	@	@	@	@	©
c.	Selecting other instructional materials	@	@	@	@	©
d.	Selecting content, topics, and skills to be taught	@	@	@	@	©
e.	Selecting the sequence in which topics are covered	@	@	@	@	©
f.	Setting the pace for covering topics	@	@	@	@	©
g.	Selecting teaching techniques	@	@	@	@	©
h.	Determining the amount of homework to be assigned	@	@	@	@	©
i.	Choosing criteria for grading students	@	@	@	@	©
j.	Choosing tests for classroom assessment	@	@	@	@	©

PLEASE DO NOT WRITE IN THIS AREA

9 9

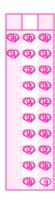
[SERIAL]

63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 29 20 20 21 21 21 21 21 21 21 21 21 21	32.	Hov	w much mather	matics homework	t do you assign to	this mathematic	s class in a ty	pical week	? (Darken o	one oval.)	
61		0	0-30 min	② 31-60 min	© 61-90 min	91-120 m	n <u> </u>	ours @	More than	n 3 hours	
60			0 30 11111	91 00 mm	01)0 11111	91 120 III	11 💆 2 3 11	louis 😅	wiore than	ii 5 iiouis	
59											
58	33a.	Are	you using one	or more comme	rcially published	textbooks or pro	grams for tea	ching mathe	ematics to t	this class?	
57		(Da	rken one oval.))							
56											
55		0		SECTION D, P.	AGE 14						
54		\bigcirc	Yes, CONTIN	NUE WITH 33b							
52											
51	33h	Wh	ich best descri	hes vour use of te	exthooks/program	ne in this class?	Darken one c	oval)			
50	330.	** 11	Which best describes your use of textbooks/programs in this class? (Darken one oval.)								
49		@	Use one textb	ook or program a	all or most of the	time					
48		@		textbooks/prograi							
47			_								
46											
45	34.	Ind	icate the publis	sher of the one te	xtbook/program	used most often	by students ir	n this class.	(Darken or	ne oval.)	
44		(A 1 1' XX7	1 7 7	(C F	CO.	W C	1 D			
40		യ	Brooks/Cole		c/Scott Foresman	l CE	Key Curric			n a CTD/MaCar	11:11
41		@	CORD Comn	•		9				ng CTB/McGra encoe/McGraw	
40		@	Creative Publ							Graw-Hill Scho	
39		©	Dale Seymou							A/McGraw-Hi	
38		@	EFA & Assoc			@	Optical Da			11/1/10/01/01/11/11/11	/
37		@	Encyclopaedi			@		-			
36		®	• •	arning Corporatio	on	@					
35		@		, Inc / Cambridge		@	Silver Burd	lett Ginn			
34		Harcourt Brace/Harcourt, Brace & Jovanovich South-Western Educational Publishing									
33		We Holt, Rinehart and Winston, Inc									
32		@	_	fflin Company/N	IcDougal Littell/l			-			
30		7	Heath	D 11' 1'			West Educ	ational Pub	lishing		
29		(B)	Kendall Hunt	Publishing							
28		@	Other, please	specify.							
27		_	o ther, preuse	speeny							
26											
25										For office use o	nly
24	35a.				d publication year	r of the one texth	ook/program	used most	often by		
23		stuc	dents in this cla	iss.						@ @ @ @	
22		TD: 41								@ @ @	
20		Titl	e:							0000	
19		Fire	st Author							@ @ @ @ @ @	
18		THIS	st Author								
17		Pub	lication Year	,	Edition:						
16		1 40	incution 1 cur.							000	
15										@ @ @	
14										@ @ @	o l
13	35b.	App	proximately wh	nat percentage of	this textbook/pro	gram will you "o	cover" in this	course?			_
12		(Da	rken one oval.))							
11											
10		0	< 25%	25-49%	© 50-74%	9 75-90%	>90%	6			
9											
7	25.	Ц	w would ron ==	oto the oxegonall co-	ality of this tand	ook/program? (Jorkon one				
6	SSC.	п07	w would you ra	ue uie overaii qu	ality of this textbo	оок/program? (I	varken one ov	val.)			
5		0	Very Poor	Poor	Fair	@ (ood	O Vers	Good	© Excellent	
=			· · · · · · ·			_ ,		. 51)			

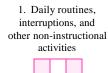
D. Your Most Recent Mathematics Lesson in This Class

Questions 36-38 refer to the last time you taught mathematics to this class. Do not be concerned if this lesson was not typical of instruction in this class. (Please enter your answers as 3-digit numbers, i.e., if 30 minutes, enter as 030. Enter your answers in the spaces provided, then darken the corresponding oval in each column.)

36a. How many minutes were allocated to the most recent mathematics lesson? Note: Teachers in departmentalized and other non-self-contained settings should answer for the entire length of the class period, even if there were interruptions.



36b. Of these, how many minutes were spent on the following: (The sum of the numbers in 1.-6. below should equal your response in 36a.)



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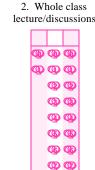
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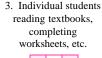
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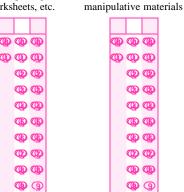
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4. Working with

hands-on or

5. Non-manipulative small gro

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

- Contract Lecture
- Discussion
- Students completing textbook/worksheet problems

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- Students doing hands-on/manipulative activities
- Students reading about mathematics
- Students working in small groups
- Students using calculators
- Students using computers
- Students using other technologies
- Test or quiz
- None of the above

Did that lesson take place on the most recent day you met with that class?

Yes

O No

63 62	E. D	Demographic Information	
61	39.	Indicate your sex:	
59 58 57		Male Female	
56 55 54	40.	Are you: (Darken all that apply.)	
53 52 51 50 49 48 47 46		American Indian or Alaskan Native Asian Black or African-American Hispanic or Latino Native Hawaiian or Other Pacific Islander White	
46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31	41.	In what year were you born? (Enter the last two digits of the year you were born; e.g., if you were born in 1959, enter 59. Please enter your answer in the spaces to the right, then darken the corresponding oval in each column.) 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	
33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7	42.	How many years have you taught at the K-12 level prior to this school year? (Please enter your answer in the spaces to the right, then darken the corresponding oval in each column.) 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	
20 19 18	43. 44.	If you have an email address, please write it here: When did you complete this questionnaire? Date://	
16		Month Day Year	FOR OFFICE USE ONLY Please do not write in this area.
14 13 12	Plea orig	se make a photocopy of this questionnaire and keep it in case the inal is lost in the mail. Please return the <u>original</u> to:	000000000000000000000000000000000000000
11 10 9 8 7		2000 National Survey of Science and Mathematics Education Westat 1650 Research Blvd. TB120F	

THANK YOU!

Rockville, MD 20850

LIST OF COURSE TITLES

A. SCIENCE COURSES

CODE	Course Category	Sample Course Titles
	Grades K – 5	
100	Science, Grade K	
101	Science, Grade 1	
102	Science, Grade 2	
103	Science, Grade 3	
104	Science, Grade 4	
105 106	Science, Grade 5	
100	Other Elementary Science	
	Grades 6 – 8	
108	Life Science	
109	Earth Science	
110	Physical Science	
111 112	General Science	
112	Integrated Science	
	Grades 9 – 12	
	Biology	
114	1st Year	Introductory Biology; Biology I; General Biology; College Prep Biology; Honors Biology
115	1st Year, Applied	Basic Biology; Applied Biology; Life Science; Biomedical Education; Animal Science; Horticulture; Biology Science; Health Science; Nutrition; Agriculture Science; Fundamentals of Biology
116	2nd Year, AP	Advanced Placement
117	2nd Year, Advanced	Biology II; Advanced Biology; College Biology; Physiology; Anatomy; Microbiology; Genetics; Cell Biology; Embryology; Molecular Biology; Invertebrate/Vertebrate Biology
118	2nd Year, Other	Zoology; Botany; Bio-Medical Careers; Field Biology; Marine Biology; Other Biological Sciences
	Chemistry	
119	1st Year	Introductory Chemistry; Chemistry I; General Chemistry; Honors Chemistry
120	1st Year, Applied	Applied Chemistry; Consumer Chemistry; Technical Chemistry; Practical Chemistry
121	2nd Year, AP	Advanced Placement Chemistry
122	2nd Year, Advanced	Chemistry II; Advanced Chemistry; College Chemistry; Organic Chemistry; Inorganic Chemistry; Physical Chemistry; Biochemistry; Analytical Chemistry
	Physics	
123	1st Year	Introductory Physics; Physics I; General Physics; Honors Physics;
124	1st Year, Applied	Applied Physics; Electronics; Radiation Physics; Practical Physics
125	2nd Year, AP	Advanced Placement Physics
126	2nd Year, Advanced	Physics II; Advanced Physics; College Physics; Nuclear Physics; Atomic Physics
127	Physical Science	Physical Science; Interaction of Matter and Energy; Applied Physical Science
	Earth Science	
128	Astronomy *	* NOTE: A course that includes substantial content from two or more of the earth sciences should be listed under code 132, 133,
129	Geology*	or 134.
130	Meteorology*	
131	Oceanography/Marine	
	Science*	
132	1st Year	Earth Science; Earth/Space Science; Honors Earth Science
133	1st Year, Applied	Applied Earth Science; Fundamentals of Earth Science; Soil Science
134	2nd Year, Advanced/Other	Advanced Earth Science; Earth Science II
	Other Science	
135	General Science	General Science; Basic Science; Introductory Science; Investigations in Science
136	Environmental Science	Ecology; Environmental Science
137	Coordinated Science	Coordinated Science includes content from more than one science discipline, e.g., life and physical science, but keeps the disciplines separate
138	Integrated Science	Integrated Science includes content from the various science disciplines and blurs the distinctions among them
199	Other Science	

Course titles continue on next page...

B. MATHEMATICS COURSES

CODE	Course Category	Sample Course Titles
200 201 202 203 204 205 206	Grades K – 5 Mathematics, Grade K Mathematics, Grade 1 Mathematics, Grade 2 Mathematics, Grade 3 Mathematics, Grade 4 Mathematics, Grade 5 Other Elementary Mathematics	
	Grades 6 – 8	
208 209 210	Remedial Mathematics 6 Regular Mathematics 6 Accelerated/Pre-Algebra Mathematics 6	Remedial Math 6 Math 6; Math Grade 6 regular Accelerated Math 6; Pre-Algebra; Honors Math 6; Enriched Math 6;
211 212	Remedial Mathematics 7 Regular Mathematics 7	Remedial Math 7 Math 7; Math Grade 7 regular
213 214 215	Accelerated Mathematics 7 Remedial Mathematics 8 Regular Mathematics 8	Accelerated Math 7; Pre-Algebra; Honors Math 7; Enriched Math 7; Remedial Math 8 Math 8; Math Grade 8 regular
216 217 218	Enriched Mathematics 8 Algebra 1, Grade 7 or 8 Integrated Middle Grade Math, 7 or 8	Pre-Algebra; Accelerated Math 8 ¹ ; Honors Math 8; Enriched Math 8 Algebra 1; Beginning Algebra; Elementary Algebra Integrated Math 7 or 8; Connected Math 7 or 8
	Grades 9 – 12 Review Mathematics	
219	Rev. Math Level 1	General Math 1; Basic Math; Math 9; Remedial Math; Developmental; High School Arithmetic; Math Comp Test; Comprehensive Math; Terminal Math
220	Rev. Math Level 2	General Math 2; Vocational Math; Consumer; Technical; Business; Shop; Math 10; Career Math; Practical Math; Essential Math; Cultural Math
221 222	Rev. Math Level 3 Rev. Math Level 4	General Math 3; Math 11; Intermediate Math; General Math 4; Math 12; Mathematics of Consumer Economics
223	Informal Mathematics Inf. Math Level 1	Pre-Algebra; Introductory Algebra; Basic; Applications; Algebra 1A (first of a two-year sequence for Algebra 1); Math A; Applied Math 1
224 225	Inf. Math Level 2 Inf. Math Level 3	Basic Geometry; Informal Geometry; Practical Geometry; Applied Math 2 Applied Math 3, 4
226	<u>Formal Mathematics</u> For. Math Level 1	Algebra 1; Elementary; Beginning; Unified Math I; Integrated Math 1; Algebra 1B (second year of a two-year sequence for Algebra 1); Math B
227	For. Math Level 2	Geometry; Plane Geometry; Solid Geometry; Integrated Math 2; Unified Math II; Math C
228	For. Math Level 3	Algebra 2; Intermediate Algebra; Algebra and Trigonometry; Advanced Algebra: Algebra and Analytic Geometry; Integrated Math 3; Unified Math III
229	For. Math Level 4	Algebra 3; Trigonometry; College Algebra; Pre-Calculus; Analytic/Advanced Geometry; Trigonometry and Analytic/Solid Geometry; Advanced Math Topics; Introduction to College Math; Number Theory; Math IV; College Prep Senior Math; Elementary Functions; Finite Math; Math Analysis; Numerical Analysis; Discrete Math; Probability; Statistics
230	For. Math Level 5	Calculus and Analytic Geometry; Calculus; Abstract Algebra; Differential Equations; Multivariate Calculus; Linear Algebra; Theory of Equations; Vectors/Matrix Algebra;
231	For. Math Level 5, AP	Advanced Placement Calculus (AB, BC); Advanced Placement Statistics
232	Other Mathematics Courses Probability and Statistics	
232	Mathematics integrated with	
	other subjects	
299	Other Mathematics	

Course titles continue on next page...

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¹ If Accelerated Math 8 is the same as Algebra 1 in your state, report the data under Math Grade 8, Algebra 1, and not Math Grade 8, Enriched. ² If Applied Math course includes some algebra and geometry, report under Informal Math, Level 1. If it does not, report under Review Math, Level 2.

C. OTHER COURSES

CODE Course Category 301 Computer Science 302 Social Studies/History 303 English/Language Arts/Reading 304 **Business Education** 305 Vocational Education 306 **Technology Education** Foreign Language 307 308 Health/Physical Education 309 Art/Music/Drama 399 Other subject

Federally Approved Definitions for Race/Ethnicity Categories

American Indian or Alaskan Native. A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.

Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Black or African-American. A person having origins in any of the black racial groups of Africa.

Hispanic or Latino. A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

Native Hawaiian or Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.