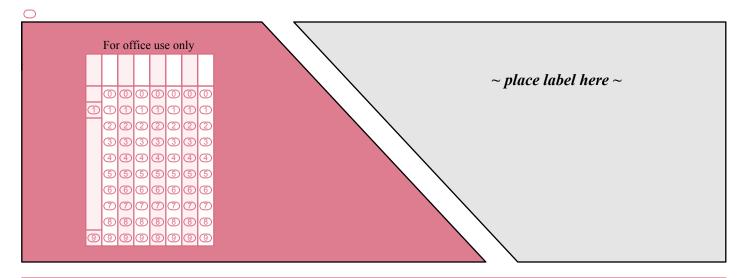


Privacy Notice

Information from this questionnaire will be retained by the National Science Foundation (NSF), a Federal agency, and will be an integral part of its Privacy Act System of Records in accordance with the Privacy Act of 1974 and maintained in the Education and Training System of Records 63 Fed. Reg. 264, 272 (January 5, 1998). These are confidential files accessible only to appropriate NSF officials, their staffs, and their contractors responsible for monitoring, assessing, and evaluating NSF programs. Only data in highly aggregated form, or data explicitly requested as "for general use," will be made available to anyone outside of NSF for research purposes. Data submitted will be used in accordance with criteria established by NSF for monitoring research and education grants, and in response to Public Law 99-383 and 42 U.S.C. 1885c.

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Submission of the requested information is voluntary. Pursuant to 5 CFR 1320.5(b), an agency may not conduct or sponsor, and a person is not required to respond to an information collection unless it displays a valid OMB control number. The OMB control number for this collection is 3145-0161 (expires: September 30, 2008). Public reporting burden for this collection of information is estimated to average 20 minutes per response, including the time for reviewing instructions. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Suzanne Plimpton, Reports Clearance Officer for OMB Collection 3145-0161(LSC), Facilities and Operations Branch, Division of Administrative Services, National Science Foundation, 4201 Wilson Blvd., Suite 295, Arlington, VA 22230.



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63 62	Insti	ructions: Pleas	e use	a #2 pencil to com	nplete tl	nis questionnaire.	. Dark	ken ova	ls co	mpletely, but do not s	trav in	ıto adiace	ent ovals.
61				y any stray marks		1				r ,,	5	· · · · · · · · · · · · · · · · · · ·	
59	A.	Teacher Dem	ograp	ohic Information									
58	1	A		Mala	2-	Ethnicita Ana				Ilianania an Latina			
56	1.	Are you:		Male Female	2a.	Ethnicity - Are y (Darken one ova				Hispanic or Latino Not Hispanic or Latin	no		
55 54					2b.	Race - Are you:				American Indian or A	A locks	Notivo	
53					20.	(Choose one or)		Asian Asian	Aiaska	. Inalive	
52										Black or African Am			1 1
50										Native Hawaiian or (White	Iner	Pacific is	iander
49	2		1					D: 1			, .	1 1 4	
48 47 46	3.	completed? (I		science courses ha n one oval.)	ve you		4.			ollege science courses of at least one semeste			
46				,				on eac					
45 44		None1 semest	er					a.	Life	e science	Yes	No	
43		2 semest	ers					b.	Ear	th and space science	0	0	
42 41		3 semest4 semest						C.	Phy	rsical science	0	\bigcirc	
40		5 or mor		esters									
39													
37	5.	How many year	ars ha	ve you taught prio	r to thi	s school year? (I	Darken	one ov	val.)				
36		0-2	3-5	6-10			5-20		21-25				
34			\bigcirc			0			0	\bigcirc			
33					_			_					
32		The Nationa	l Sci	ence Foundati		•		_	•	C) through Teach	er E	nhance	ment
30					P	rogram's Cor	e Ev	aluati	on				
28	Y	ou have been se	lected	I to participate in t	the nati	onwide evaluatio	n of th	ne fede	rallv-	-funded Local System	ic Cha	inge (LSC	C)
27	pı	rogram. LSC is	a Nat	ional Science Fou	ndatior	Teacher Enhanc	ement	t progra	ım th	at has funded more th	an 80	local pro	jects
26 25										around the country. 'ell as the instruction			
24		ne focus of that			incs th	ic Lise project ii	ıı your	aica,	a3 W	en as the mstruction	ai IIIA	ci iais tii	at ait
23 22	S	everal times ove	r the	course of the LSC	each r	project will admir	nister (questio	nnair	res to a sample of teac	hers w	/ho are ta	rgeted

to participate in the local project's professional development activities. Note that you may be asked to complete this questionnaire even if you have not yet participated in the project's professional development; your response is important, regardless of whether you have already participated. A small number of randomly-selected teachers in each project is asked to provide additional information in interviews, sometimes in conjunction with a classroom visit. In order to continue receiving federal funding, each LSC project must participate in this national evaluation.

Data collection procedures have been developed to ensure high-quality data and protect teacher confidentiality. Your responses will be kept strictly confidential; they will be combined with the responses of the other teachers in your project and used only for the LSC evaluation. The name label and numbering on this questionnaire are used to help local projects deliver questionnaires to the proper teachers and follow up with teachers who have not responded; no information identifying individual teachers will be reported under any circumstances. After you complete the questionnaire, you should remove the name label and return the questionnaire as specified by your local LSC project.

B. Teacher Opinions and Preparedness

6. Please provide your opinion about each of the following statements.

(Γ	Parken one oval on each line.)	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
a.	Students generally learn science best in classes with students of similar abilities.	1	2	3	4	5
b.	I feel supported by colleagues to try out new ideas in teaching science.	1	2	3	4	5
c.	Teachers in this school have a shared vision of effective science instruction.	1	2	3	4	5
d.	Teachers in this school regularly share ideas and materials related to science.	1	2	3	4	5
e.	Teachers in this school are well-supplied with materials for investigative science					
	instruction.	1	2	3	4	5
f.	I have time during the regular school week to work with my peers on science					
	curriculum and instruction.	1	2	3	4	(5)
g.	I have adequate access to computers for teaching science.	1	2	3	4	5
h.	I enjoy teaching science.	1	2	3	4	5
i.	I am well-informed about the NRC National Science Education Standards for the	e				
	grades I teach.	1	2	3	4	5
j.	The science program in this school is strongly supported by local organizations, institutions, and/or businesses.	1	2	3	4	(5)

7. In the left section, please rate each of the following in terms of its **importance** for effective science instruction in the grades you teach. In the right section, please indicate how **prepared** you feel to do each one. (Darken one oval in each section on each line.)

			Impo	rtance					
		Not Important	Some- what Important	Fairly Important	Very Important	Not Adequately Prepared	Some- what Prepared	Fairly Well Prepared	Very Well Prepared
a.	Provide concrete experience before abstract								
	concepts.	1	2	3	4	1	2	3	4
b.	Develop students' conceptual understanding of	of							
	science.	1	2	3	4	1	2	3	4
	Take students' prior understanding into accou	ınt							
	when planning curriculum and instruction.	1	2	3	4	1	2	3	4
d.	Make connections between science and other								
	disciplines.	1	2	3	4	1	2	3	4
e.	Have students work in cooperative learning								
	groups.	1	2	3	4	1	2	3	4
f.	Have students participate in appropriate								
	hands-on activities.	1	2	3	4	1	2	3	4
g.	Engage students in inquiry-oriented activities	. ①	2	3	4	1	2	3	4
h.	1	1	2	3	4	1	2	3	4
i.	88.	a							
	variety of contexts.	1	2	3	4	1	2	3	4
j.	Use performance-based assessment.	1	2	3	4	1	2	3	4
	Use portfolios.	1	2	3	4	1	2	3	4
1.	Use informal questioning to assess student								
	understanding.	1	2	3	4	1	2	3	4

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8.	My principal: (Darken one oval on each li	ne.)		Stron Disag	gly gree Disagree	No Opinion	Agree	Strongly Agree
	a. Encourages me to select science conten	t and instruction	onal strategies	that				
	address individual students' learning.		_	1	2	3	4	5
	b. Accepts the noise that comes with an ac	tive classroom	1.	1	2	3	4	5
	c. Encourages the implementation of curre	ent national sta	ındards in scie	ence				
	education.			1	2	3	4	5
	d. Encourages innovative instructional pra	ctices.		1	2	3	4	5
	e. Enhances the science program by provi	ding me with i	needed materia	als and				
	equipment.			1	2	3	4	5
	f. Provides time for teachers to meet and s	share ideas wit	th one another	. (1	2	3	4	5
	g. Encourages me to observe exemplary so	cience teachers	S.	1	2	3	4	5
	h. Encourages teachers to make connectio	ns across disci	plines.	1	2	3	4	(5)
	i. Acts as a buffer between teachers and e	xternal pressu	res (e.g., parer	nts).	2	3	4	5
9.	Many teachers feel better prepared to teach of the following subjects at the grade level (Darken one oval on each line.)							
	a. Science	1	2	3	4			
	b. Mathematics	①	2	3	4			
	c. Reading/Language Arts	1	2	3	4			
	d. Social Studies	1	2	3	4			
			Not Adequatel Prepared	•	Fairl Wel Prepar	1	Very Well Prepared	
	a. The human body		1	2	3		4	
	b. Ecology		①	2	3		4	
	c. Rocks and soils		①	2	3		4	
	d. Astronomy		①	2	3		4	
	e. Processes of change over time (e.g., evo	olution)	1	2	3		4	
	f. Mixtures and solutions	,	1	2	3		4	
	g. Electricity		1	2	3		4	
	h. Sound		1	2	3		4	
	i. Forces and motion		1	2	3		4	
	j. Machines		1	2	3		4	
	k. Engineering and design principles (e.g., models)	structures,	1	2	3		4	
11.	Please indicate how well prepared you fee following. (Darken one oval on each line.		the	Not Adequately Prepared	Somewhat Prepared	Fairly Well Prepare		Very Well Prepared
	a. Lead a class of students using investiga	tive strategies		1	2	3		4
	b. Manage a class of students engaged in l			①	2	3		4
	work.	proje		①	2	3		4
	c. Help students take responsibility for th	eir own learni	ng.	①	2	3		4
	d. Recognize and respond to student diver		~ o ·	0	2	3		4
	e. Encourage students' interest in science.	-						
	f. Use strategies that specifically encourage	ge participation	n of females	1	2	3		4
	and minorities in science.			1	2	3		4
	g. Involve parents in the science education	of their stude	ents.					
Horiz	on Research, Inc.	3						
	•							

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12.		the effect of each truction. (Darken			Inhibits Effective Instruction		Neutral or Mixe			Encourages Effective Instruction	N/A / Don't Know	63 62 61 60 59
	o State on	d/or district curric	ulum framazzar	ra	4			u			_	58
						_	3		Q	(5)	NA	50
		d/or district testing					3		4	5	NA.	57
		of available instru			4		3		4	(5)	NA	56
	d. Access t	to computers for s	cience instruction	n.	4	_	3		4	(5)	NA	55
	e. Funds fo	or purchasing equi	ipment and supp	lies for science	e. 🕢	9	3		4	5	NA	54
		of managing instr										53 52
	or schoo	ol level.				②	3		4	5	NA.	51
	g. Time av	ailable for teacher	rs to plan and pr	epare lessons.	a	_	3		\bigcirc	(5)	NA	50
	h. Time av	ailable for teacher	rs to work with o	other teachers.	4		3		4	(5)	NA	49
	i. Time av	ailable for teacher	professional de	velopment.		_	3		4	5	NA	48
		nce that the schoo	•	•	①	②	3		a	(NA	47
		ency of science ref			-		•		<u> </u>	•	NA	46
		listrict reforms.	om chorts with	1 501101								45
			C		Q	Q	3		9	⑤	NA O	
	I. Public a	ttitudes toward re	form.			_	3		4	(5)	NA	43
13.	•	of your students' e oval on each lin		of the following	ng?							44 43 42 41 40 39
	`						A		About		Almost	38
						None	Few		1/2		All	37
	a Volunte	er to assist with cl	ass activities			(4	_	3	4	5	36
		money or material		instruction		•			3	4	(5)	35
				msu action.		9	4	9	3	ā	(5)	34
		parent-teacher con				Ψ	Φ	9	3	4	4	33
		chool activities su Science nights.	•	4		3	4	(5)	32			
		apport for the use	of an investigat	ive approach t	0							31
		instruction.				•	4	_	3	4	(5)	30
	f. Voice su	ipport for tradition	nal approaches t	o science instr	uction.	•		_	3	Q	<u></u>	29 28 27
		ence Teaching		g. Please ansv	ver for youi	· first elei	mentary/1	niddle	school s	cience clas	s of the	27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2
14.	What grade	e level is this class		1 2	3	4	5	6	7	8		21
	(Darken all	ovals that apply.)	₩	4	3		5	©	\bigcirc			20
	(Darken an	ovais that apply.	,									19
15.	Do you tead	ch in a self-contai	ned classroom (i.e., you are re	sponsible for	r teaching	several su	ubjects	to one cl	lass)?		18
	(Darken on	•										16
	Yes No	(Skip to Question 21))									13
16.	How many	lessons per week	do you typically	teach science	to this class	? (Darke	n one oval	l.)				11
		Numb	er of Lessons									9
	0	1 2	3	4	5							8
	6	4 5		4	5							7
	•	4	3	4	5							-
												0
												5
												4
												3
	© Horizon	n Research, Inc.			4							2
		_			- -							1

63						1	0 (D 1						
62	17.	Approxima	tely how m	nany minutes i	s a typical sci	ence lesso	on? (Dark	en one ov	al.)				
61				Aver	age Number	of Minut	es per Le	sson					
59		10 or fewer	11-20	21-30	31-40	41-50	51-60	61-70	-	71-80	81 or more		
59 58 57 56 55 54			0	0	0	0	0	01 70		0	O		
57													
56													
55	18.	How many	science un	its has this cla	iss worked on	so far thi	s academi	c vear? (V	We are	defining	a "unit" as	a series of re	elated
54	10.			ingle topic suc							, a ann as	a series of re	ratea
53		4001 , 101 0 5, 0		mgre topre sur	ii us souru, re	, e110, 01 B	(2 4111411 0		• •			
		0	1	2	3	4	5	6		7	8	9 or more	
51			0	0	0	0	0	0		0	0		
50													
49													
48	19.	How long o	lo your scie	ence units typi	ically last? (D	arken on	e oval.)						
47			, , , , , , , , , , , , , , , , , , , ,		, man		,						
46		One we	eek	\circ S	ix weeks								
45		Two w	reeks	\circ S	even weeks								
44		Three v	weeks	O E	ight weeks								
43		Four w	eeks	\bigcirc N	ine weeks								
42		Five w	eeks	\bigcirc T	en or more we	eeks							
41													
40													
39	20.	In how mar	ny of the la	st five school	days did you t	teach eacl	n of the fo	llowing in	this cla	ass?			
38		(Darken on	e oval on e	ach line.)			Number	of Dove					
37								•					
36					None	One	Two	Three	Four	Five			
35		a. Science			0	1	2	3	4	5			
34		b. Mathem			①	1	2	3	4	5			
33		c. Reading		Arts	<u> </u>	1	2	3	4	5			
32		d. Social S	tudies		0	1	2	3	4	5			
31													
52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 33 33 33 33 32 33 32 33 32 32	21	A la acce la acces	- G d	dl£	41. a Callannin a	i	_:			Rarely	Sometimes	Often	All or
28	21.			ou do each of s? (Darken or	_	-	cience			g., a few mes a	(e.g., once or twice	(e.g., once or twice	almost all science
27		mstruction	iii uiis cias	s: (Darken or	ne ovar on eac	ii iiiie.)		Never		year)	a month)	a week)	lessons
26		a Use the	I SC-design					INCVCI		•			
25			U	naiea inciriich	onal materials	s (see cov	er letter)	Never					
24					onal materials	s (see cov	er letter)			(2)	<u>(3)</u>	(4)	(5)
23				nce lessons.		`	er letter)	1		2	3	4 4	5
22			e content the	nce lessons. hrough formal	l presentations	S.	,			2222	③ ③ ③	444	555
21		d. Teach so	e content the trate a scien	nce lessons. hrough formal nce-related pr	l presentations inciple or phe	S.	,	1		2	3	4	5
			e content the trate a science cience using	nce lessons. hrough formal nce-related pr g real-world c	I presentations inciple or phe ontexts.	s. nomenon	,	① ① ①		2	3	4	5
20		e. Arrange	trate a science using seating to	nce lessons. hrough formal nce-related pr g real-world c facilitate stude	I presentations inciple or phe ontexts.	s. nomenon	,	① ① ① ①		222	3 3 3	4 4 4	555
20 19		e. Arrange f. Use open	trate a science using seating to n-ended qu	nce lessons. hrough formal nce-related pr g real-world c facilitate stude	I presentations inciple or phe ontexts. ent discussion	s. nomenon		① ① ① ① ①		 2 2 2 2 	3 3 3 3	4 4 4 4	5555
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20191817		e. Arrangef. Use openg. Requireh. Encoura	trate a science using seating to n-ended que students to ge students	nce lessons. hrough formal nce-related pr g real-world c facilitate stud- lestions. o supply eviden	I presentations inciple or phe ontexts. ent discussion nce to support	nomenon their clair	ms.	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		 2 2 2 2 2 2 2 	3 3 3 3 3	4 4 4 4 4	(5) (5) (5) (5) (5)
19 18 17 16		e. Arrange f. Use oper g. Require h. Encoura i. Encoura j. Allow st	trate a science using seating to n-ended questudents to ge students ge students to when the s	hrough formal nce-related pr g real-world c facilitate stude testions. s supply evidents to explain co to consider a vork at their o	I presentations inciple or phe ontexts. ent discussion nce to support ncepts to one lternative exp wn pace.	their clai another.	ms.	① ① ① ① ① ① ① ① ① ① ① ① ① ① ① ① ① ① ①		 2 2 2 2 2 2 2 2 	3 3 3 3 3 3 3	4 4 4 4 4 4	\$
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19 18 17 16 15 14 13 12		e. Arrange f. Use oper g. Require h. Encoura i. Encoura j. Allow st k. Help stu disciplin l. Use asse a unit. m. Embed a	trate a science using seating to mended quistudents to ge students ge students to dents see commended to the seesment to the s	hrough formal nce-related pr g real-world c facilitate stude testions. supply evidents to explain co to consider a work at their of connections be find out what	I presentations inciple or phe ontexts. ent discussion nce to support ncepts to one Iternative exp wn pace. etween science students know	s. nomenon their clai another. lanations	ms.			2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3 3 3 3 3	4 4 4 4 4 4 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
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About how often do students in this class take part in each of the following types of activities as part of their science instruction? (Darken one oval on each line.)	Never	Rarely (e.g., a few times a year)	Sometimes (e.g., once or twice a month)	Often (e.g., once or twice a week)	All or almost a science lessons
a. Participate in student-led discussions.	1	2	3	4	5
p. Participate in discussions with the teacher to further science					
understanding.	1	2	3	4	5
c. Work in cooperative learning groups.	1	2	3	4	5
d. Make formal presentations to the class.	1	2	3	4	5
e. Read from a science textbook in class.	1	2	3	4	5
f. Read other (non-textbook) science-related materials in class.	1	2	3	4	(5)
g. Answer textbook/worksheet questions.	1	2	3	4	5
h. Review homework/worksheet assignments.	1	2	3	4	5
i. Work on solving a real-world problem.	1	2	3	4	(5)
j. Share ideas or solve problems with each other in small groups.	1	2	3	4	5
k. Engage in hands-on science activities.	1	2	3	4	5
l. Follow specific instructions in an activity or investigation.	1	2	3	4	5
m. Design or implement their <i>own</i> investigation.	1	(2)	(3)	4	(5)
n. Design objects within constraints (e.g., egg drop, toothpick bridge,		_	_	_	
aluminum boats).	1	(2)	(3)	4)	(5)
o. Work on models or simulations.	①	2	3	4	(5)
p. Work on extended science investigations or projects (a week or mor					
in duration).	1	2	3	4	(5)
q. Participate in field work.	①	2	3	4	(5)
r. Record, represent, and/or analyze data.	①	2	3	4	5
1. Record, represent, und/or unaryze data.					
s. Write reflections in a notebook or journal.	1	2	3	4	(5)
t. Prepare written science reports.	1	2	3	4	5
u. Use mathematics as a tool in problem-solving.	1	2	3	4	(5)
v. Use computers.	1	2	3	4	5
w. Work on portfolios.	1	2	3	4	5
x. Take short-answer tests (e.g., multiple choice, true/false, fill-in-the-blank).	1	(2)	3	4)	(5)
y. Take tests requiring open-ended responses (e.g., descriptions,	·	-		•	
explanations).	1	2	3	4	(5)
z. Engage in performance tasks for assessment purposes.	1	2	(3)	(4)	5

D. LSC Professional Development

Questions 23-28 refer to the NSF-supported Local Systemic Change (LSC) program. Please refer to the cover letter accompanying this questionnaire for information about the LSC project activities and designated materials in your district. If you have not yet participated in LSC professional development, darken this oval and skip to question 28.

23. To what extent is each of the following true of LSC science-related professional development in your district? (Darken one oval on each line.)

(Darken one ovar on each line.)	Not at all				To a great extent
a. I am involved in planning my science-related professional development.	1	2	3	4	5
b. I am encouraged to develop an individual professional development plan to					
address my needs and interests related to science education.	1	2	3	4	5
c. I am given time to work with other teachers as part of my professional					
development.	1	2	3	4	5
d. I am given time to reflect on what I've learned and how to apply it to the					
classroom.	1	2	3	4	(5)
e. I receive support as I try to implement what I've learned.	1	2	3	4	5

63 62 61	24.	Approximately how many <i>total hours</i> have you spent on f science/science education <i>since the LSC project began</i> ? (ofession	al develop	oment in	
60 59		0 0 10-19 0 40-59 0 80- 0 1-9 0 20-39 0 60-79 0 100		130-159 160-199	(200 or	greater	
58 57	25.	Please indicate the number of times you have participated	in each of t	he following	activitie	es during	this school	year.
56 55		(Darken one oval on each line.)			0	1-2	3-4 5-	7 or -6 more
54		a. Participated in an LSC academic year "kit club"/study g			1	2	3	5
53 52		 Was "coached" on my teaching by an LSC teacher lead a classroom observation. 	ler/staff per	son based on	1	2	3	5
51		c. Received assistance from an LSC "teacher leader" in m	y school.		1	2	3	
50		d. Received assistance from an LSC staff person in my dis			1	2	3	5
49		e. Received assistance from an LSC-designated scientist/s	science edu	cator from a		_		
48		college/university/museum/industry.	. I CC		①	2	3 (5
46		f. Read messages in a Listserv discussion sponsored by the g. Posted messages to a Listserv discussion sponsored by			1	2	3 0	
45		g. I osted messages to a Eistsel v discussion sponsored by	the Loc.		•			
44			Very				Very	
43	26.	How would you rate the overall quality of the LSC	Poor	Poor	Fair	Good	Good	Excellent
42		professional development? (Darken one oval.)	0	0	0	0	0	0
41								
40 39	27.	To what extent has participation in LSC science-related pr		Not				To a
38		development increased your: (Darken one oval on each lin	at all			gr	eat extent	
37		a. Science content knowledge.		1	2	3	4	5
36		b. Understanding of how children think about/learn science		1	2	3	4	5
35		c. Ability to implement high-quality science instructional	materials.	1	2	3	4	5
34								
32	28.	Have you been identified as a teacher leader for your distri	ict's NSF-si	ipported LSC	7	\bigcirc Y	es C	No
31	_0.	project?	10001101	appoint a so				
30		•						
29 28 27								
28		Thank you very much for p	participat	ing in this	surve	v!		
26		J. J				<i>J</i>		
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5		PLEASE DO NOT WRITE IN THIS	AREA					