Council of Chief State School Officers
Wisconsin Center for Education Research

SURVEYS OF ENACTED CURRICULUM®

Survey Of Instructional Practices
Teacher Survey
Grades K-8
Mathematics

Thank you for agreeing to participate in this survey of instructional practice and content. This survey is part of a collaborative effort to provide education researchers, policymakers, administrators, and most importantly, teachers like yourself with comparative information about instruction in districts participating in the SEC Collaborative or associated initiatives from states and districts around the country. To learn more about the surveys of enacted curriculum and their use in other projects, please visit the project website; http://www.secsurvey.org

Your participation in this survey is voluntary. If you choose to participate, your personal information will remain strictly confidential. Information that could be used to identify you or used to connect you to individual results will not be shared with staff in your school, district or state. Individual respondents are never identified in any reports of results. The questionnaire poses no risk to you and there is no penalty for refusal to participate. You may withdraw from the study simply by returning the questionnaire without completing it, without penalty or loss of services or benefits to which you would be otherwise entitled.

If you have any questions regarding your rights as a research participant, please contact the University of Wisconsin-Madison School of Education's Human Subjects Committee office at (608) 262-2463.

A joint project of the Council of Chief State School Officers and the Wisconsin Center for Education Research, with funding support from the National Science Foundation and participating states and districts.

Please provide the following information:
(Note: Your personal information will be kept confidential.)

Name: _____

Email address: _____
(required for on-line access to individual results)

District: _____

School: _____

Date: _____

Providing your name and email address will allow you to gain access to your individual results along with results for your school and/or district.

☐ _____ ☐ _____ ☐ _____

Instructions for Selecting the Target Class --

Mathematics Instruction *-- For all questions about classroom practices please refer only to activities in the mathematics class that you teach. If you teach more than one mathematics class, select the first class that you teach each week. If you teach a split class (i.e. the class is split into more than one group for mathematics instruction) select only one group to describe as the target class.*

Please read each question and the possible responses carefully, and then mark your response by filling in the appropriate circle in the response section. A pen or pencil may be used to complete the survey.

1 Which of these categories best describes the way classes at this school are organized?

① Departmentalized Instruction
② Taught by Subject Area Specialist (non-departmental)
③ Self-contained
④ Team taught

2 If your school is departmentalized, or you are a subject area specialist, how many different mathematics courses do you currently teach?

⓪ ① ② ③ ④ ⑤ ⑥ ⑦
(Number of courses taught)

3 Which term best describes the target class, or course, you are teaching?

⓪ Other
① Elementary Math
② Middle School Math
③ Pre-algebra
④ Algebra
⑤ Integrated Math
⑥ Geometry
⑦ Trigonometry
⑧ Advanced Math
⑨ Calculus

TARGET CLASS DESCRIPTION

4 Indicate the grade level of the majority of students in the target class.

⓪	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	①	②
K	1	2	3	4	5	6	7	8	9	10	11	12

5 How many students are in the target class?

⓪ 10 or less
① 11 to 15
② 16 to 20
③ 21 to 25
④ 26 to 30
⑤ 31 or more

6 What percentage of the students in the target class are **female**? (Estimate to the nearest ten percent.)

	⓪	①	②	③	④	⑤	⑥	⑦	⑧	⑨
Less than 10	10	20	30	40	50	60	70	80	90+ %	

7 What percentage of the students in the target class are **not** Caucasian?
(Estimate to the nearest ten percent.)

	⓪	①	②	③	④	⑤	⑥	⑦	⑧	⑨
Less than 10	10	20	30	40	50	60	70	80	90+ %	

8 *During a typical week* , approximately how many hours will the target class spend in mathematics instruction?

⓪	①	②	③	④	⑤	⑥	⑦	⑧	⑨

(Number of instructional hours)

9 What is the average length of each class period for this targeted mathematics class?

⓪ Not applicable
① 30 to 40 minutes
② 41 to 50 minutes
③ Varies due to block scheduling or integrated instruction
④ 51 to 60 minutes
⑤ 61 to 90 minutes
⑥ 91 to 120 minutes

10 How many weeks total will the target mathematics class/course meet for this school year?

	⓪	①	②
Total # weeks =	1 to 12	13 to 24	25 to 36

11 Estimate the achievement level of the majority of students in the target class, based on national standards.

① High Achievement Levels
② Average Achievement Levels
③ Low Achievement Levels
④ Mixed Levels of Achievement

12 What percentage of students in the target class are Limited English Proficient (LEP)?
(Estimate to the nearest ten percent.)

	⓪	①	②	③	④	⑤	⑥	⑦	⑧	⑨
Less than 10	10	20	30	40	50	60	70	80	90+ %	

13 What is considered most in scheduling students into this class?

⓪ Ability or Achievement
① Limited English Proficiency
② Teacher Recommendation
③ Parent Request
④ No one factor more than another
⑤ Student selects

HOMEWORK (work assigned to be done *outside of class*)
Answer the following questions with regard to your target class:

14 How often do you usually assign mathematics homework to be done outside of class?

⓪ Never (Skip to # 18)
① Less than once per week
② Once or twice per week
③ 3-4 times per week
④ Every day

15 How many minutes does the typical student spend on a normal homework assignment completed outside of class?

⓪ I do not assign homework
① Less than 15 minutes
② 15-30 minutes
③ 31-60 minutes
④ 61-90 minutes
⑤ More than 90 minutes

16 Does homework done outside of class count towards student grades?

⓪ Never
① Usually does not
② Usually does
③ Always does

17 How often do you assign homework to be completed in a small group outside of class?

⓪ Never
① Less than once per week
② Once or twice per week
③ 3-4 times per week
④ Every day

AMOUNT OF HOMEWORK TIME ***(for the school year)***

0 - None
1 - Little *(10% or less of homework time for the school year)*
2 - Some *(11-25 % of homework time for the school year)*
3 - Moderate *(26-50% of homework time for the school year)*
4 - Considerable *(50% or more of homework time for the school year)*

What percentage of the time that students in the target class spend on mathematics homework done *outside of class* do you expect them to:

		None	Little	Some	Moderate	Considerable
18	Complete computational exercises or procedures from a textbook or worksheet.	⓪	①	②	③	④
19	Solve word problems from a textbook or worksheet.	⓪	①	②	③	④
20	Explain their reasoning or thinking in solving a problem, using several sentences.	⓪	①	②	③	④
21	Work on a demonstration or proof of their mathematics work.	⓪	①	②	③	④
22	Collect data as part of mathematics homework.	⓪	①	②	③	④
23	Work on an assignment, report, or project that takes longer than one week to complete .	⓪	①	②	③	④
24	Solve novel or non-routine mathematical problems.	⓪	①	②	③	④

INSTRUCTIONAL ACTIVITIES IN MATHEMATICS

Listed below are questions about the types of activities that students in the target class engage in during mathematics instruction. For each activity, you are asked to estimate the relative amount of time a typical student will spend engaged in that activity during classroom instruciton over the course of a school year. The activities are not necessarily mutually exclusive; across activities, your answers will undoubtedly greatly exceed 100%. Consider each activity on its own, estimating the range that bests indicates the relative amount of mathematics instructional time that a typical student spends over the course of a school year engaged in that activity.

AMOUNT OF INSTRUCTIONAL TIME ***(for the school year)***

0 - None
1 - Little *(10% or less of instructional time for the school year)*
2 - Some *(11-25 % of instructional time for the school year)*
3 - Moderate *(26-50% of instructional time for the school year)*
4 - Considerable *(50% or more of instructional time for the school year)*

How much of the total mathematics instructional time do students in the target class:		**None**	**Little**	**Some**	**Moderate**	**Considerable**
25	Watch the teacher demonstrate how to do a procedure or solve a problem.	⓪	①	②	③	④
26	Read about mathematics in books, magazines, or articles (**not** textbooks).	⓪	①	②	③	④
27	Take notes from lectures or the textbook.	⓪	①	②	③	④
28	Complete *computational exercises or procedures* from a textbook or a worksheet.	⓪	①	②	③	④
29	Present or demonstrates solutions to a math problem to the whole class.	⓪	①	②	③	④
30	Use manipulatives (for example, geometric shapes or algebraic tiles), measurement instruments (for example, rulers or protractors), and data collection devices (for example, surveys or probes).	⓪	①	②	③	④
31	Work *individually* on mathematics exercises, problems, investigations, or tasks.	⓪	①	②	③	④
32	Work *in pairs or small groups* on math exercises, problems, investigations, or tasks.	⓪	①	②	③	④
33	Do a mathematics activity with the class outside the classroom.	⓪	①	②	③	④
34	Use computers, calculators, or other technology to learn mathematics.	⓪	①	②	③	④
35	Maintain and reflect on a mathematics portfolio of their own work.	⓪	①	②	③	④
36	Take a quiz or test.	⓪	①	②	③	④

AMOUNT OF INSTRUCTIONAL TIME ***(working individually)***

0 - None

1 - **Little** *(10% or less of individual work time on mathematical exercises, problems or tasks)*

2 - Some *(11-25 % of individual work time on mathematical exercises, problems or tasks*)

3 - Moderate *(26-50% of individual work time on mathematical exercises, problems or tasks)*

4 - Considerable *(50% or more of individual work time on mathematical exercises, problems or tasks)*

When students in the target class work *individually* on mathematics exercises, problems, investigations, or tasks, how much time do they:		**None**	**Little**	**Some**	**Moderate**	**Considerable**
37	Solve *word problems* from a textbook or worksheet.	⓪	①	②	③	④
38	Solve non-routine mathematical problems (for example, problems that require novel or non-formulaic thinking).	⓪	①	②	③	④
39	Explain their reasoning or thinking in solving a problem, using several sentences orally or in writing.	⓪	①	②	③	④
40	Apply mathematical concepts to "real-world" problems.	⓪	①	②	③	④
41	Make estimates, predictions or hypotheses.	⓪	①	②	③	④
42	Analyze data to make inferences or draw conclusions.	⓪	①	②	③	④
43	Work on a problem that takes at least 45 minutes to solve.	⓪	①	②	③	④
44	Complete or conduct proofs or demonstrations of their mathematical reasoning.	⓪	①	②	③	④

AMOUNT OF INSTRUCTIONAL TIME ***(in pairs or small groups)***

0 - None

1 - Little *(10% or less of instructional time in pairs or small groups)*

2 - Some *(11-25 % of instructional time in pairs or small groups)*

3 - Moderate *(26-50% of instructional time in pairs or small groups)*

4 - Considerable *(50% or more of instructional time in pairs or small groups)*

When students in the target class work *in pairs or small groups* on math exercises, problems, investigations, or tasks, how much time do they:		**None**	**Little**	**Some**	**Moderate**	**Considerable**
45	Solve *word problems* from a textbook or worksheet.	⓪	①	②	③	④
46	Solve non-routine mathematical problems (for example, problems that require novel or non-formulaic thinking).	⓪	①	②	③	④
47	Talk about their reasoning or thinking in solving a problem.	⓪	①	②	③	④
48	Apply mathematical concepts to "real-world" problems.	⓪	①	②	③	④
49	Make estimates, predictions or hypotheses.	⓪	①	②	③	④
50	Analyze data to make inferences or draw conclusions.	⓪	①	②	③	④
51	Work on a problem that takes at least 45 minutes to solve.	⓪	①	②	③	④
52	Complete or conduct proofs or demonstrations of their mathematical reasoning.	⓪	①	②	③	④

AMOUNT OF INSTRUCTIONAL TIME (using hands-on materials)

0 - None
1 - Little *(10% or less of instructional time using hands-on materials)*
2 - Some *(11-25 % of instructional time using hands-on materials)*
3 - Moderate *(26-50% of instructional time using hands-on materials)*
4 - Considerable *(50% or more of instructional time using hands-on materials)*

When students in the target class use *hands-on materials* , how much time do they:		None	Little	Some	Moderate	Considerable
53	Work with manipulatives (for example, counting blocks, geometric shapes, or algebraic tiles) to understand concepts.	⓪	①	②	③	④
54	Measure objects using tools such as rulers, scales, or protractors.	⓪	①	②	③	④
55	Build models or charts.	⓪	①	②	③	④
56	Collect data by counting, observing, or conducting surveys.	⓪	①	②	③	④
57	Present information to others using manipulatives (for example, chalkboard, whiteboard, posterboard, projector).	⓪	①	②	③	④

AMOUNT OF INSTRUCTIONAL TIME (using calculators, computers or other ed. tech.)

0 - None
1 - Little *(10% or less of instructional time using calculators, computers, or other ed. tech.)*
2 - Some *(11-25 % of instructional time using calculators, computers, or other ed. tech.)*
3 - Moderate *(26-50% of instructional time using calculators, computers, or other ed. tech.)*
4 - Considerable *(50% or more of instructional time using calculators, computers, or other ed. tech.)*

When students in the target class are engaged in activities that involve the use of *calculators, computers, or other educational technology* as part of mathematics instruction, how much time do they:		None	Little	Some	Moderate	Considerable
58	Learn facts	⓪	①	②	③	④
59	Practice procedures	⓪	①	②	③	④
60	Use sensors and probes	⓪	①	②	③	④
61	Retrieve or exchange data or information (for example, using the Internet or partnering with another class)	⓪	①	②	③	④
62	Display and analyze data	⓪	①	②	③	④
63	Develop geometric concepts (for example, using simulations)	⓪	①	②	③	④

ASSESSMENTS

For items 64-71, indicate how often you use each of the following when assessing students in the target mathematics class.

		Never	1 - 4 times per year	1 - 3 times per month	1 - 3 times per week	4 - 5 times per week
64	Objective items (for example, multiple choice, true/false).	⓪	①	②	③	④
65	Short answer questions such as performing a mathematical procedure.	⓪	①	②	③	④
66	Extended response item for which student must explain or justify solution.	⓪	①	②	③	④
67	Performance tasks or events (for example, hands-on activities).	⓪	①	②	③	④
68	Individual or group demonstration, presentation.	⓪	①	②	③	④
69	Mathematics projects.	⓪	①	②	③	④
70	Portfolios.	⓪	①	②	③	④
71	Systematic observation of students.	⓪	①	②	③	④

INSTRUCTIONAL INFLUENCES

For items 72-81, indicate the degree to which each of the following influences what you teach in the target mathematics class.

		Not Applicable	Strong Negative Influence	Somewhat Negative Influence	Little or No Influence	Somewhat Positive Influence	Strong Positive Influence
72	Your state's curriculum framework or content standards.	⓪	①	②	③	④	⑤
73	Your district's curriculum framework or guidelines.	⓪	①	②	③	④	⑤
74	Textbook / instructional materials.	⓪	①	②	③	④	⑤
75	State tests or results.	⓪	①	②	③	④	⑤
76	District tests or results.	⓪	①	②	③	④	⑤
77	National mathematics education standards.	⓪	①	②	③	④	⑤
78	Your experience in pre-service preparation.	⓪	①	②	③	④	⑤
79	Students' special needs.	⓪	①	②	③	④	⑤
80	Parents/community.	⓪	①	②	③	④	⑤
81	Preparation of students for the next grade or level.	⓪	①	②	③	④	⑤

CLASSROOM INSTRUCTIONAL PREPARATION

For items 82-91, please indicate how well prepared you are to:		Not Well Prepared	Somewhat Prepared	Well Prepared	Very Well Prepared
82	Teach mathematics at your assigned level.	⓪	①	②	③
83	Integrate mathematics with other subjects.	⓪	①	②	③
84	Provide mathematics instruction that meets mathematics content standards (district, state, or national).	⓪	①	②	③
85	Use a variety of assessment strategies (including objective and open-ended formats).	⓪	①	②	③
86	Teach problem solving strategies.	⓪	①	②	③
87	Teach mathematics with manipulatives, such as counting blocks or geometric shapes.	⓪	①	②	③
88	Teach students with physical disabilities.	⓪	①	②	③
89	Teach classes with students with diverse abilities.	⓪	①	②	③
90	Teach mathematics to students from a variety of cultural backgrounds.	⓪	①	②	③
91	Teach mathematics to students who have Limited English Proficiency.	⓪	①	②	③

TEACHER OPINIONS

Please indicate your opinion about each of the statements below:		Strongly Disagree	Disagree	Neutral / Undecided	Agree	Strongly Agree
92	Students learn mathematics best when they ask a lot of questions.	⓪	①	②	③	④
93	It is important for students to learn basic mathematics skills before solving problems.	⓪	①	②	③	④
94	I am supported by colleagues to try out new ideas in teaching mathematics.	⓪	①	②	③	④
95	I am required to follow rules at this school that conflict with my best professional judgment about teaching and learning mathematics.	⓪	①	②	③	④
96	Mathematics teachers in this school regularly observe each other teaching classes.	⓪	①	②	③	④
97	Mathematics teachers in this school trust each other.	⓪	①	②	③	④
98	It's OK in this school to discuss feelings, worries, and frustrations with other mathematics teachers.	⓪	①	②	③	④
99	Mathematics teachers respect other teachers who take the lead in school improvement efforts.	⓪	①	②	③	④
100	It's OK in this school to discuss feelings, worries, and frustrations with the principal.	⓪	①	②	③	④
101	The principal takes personal interest in the professional development of the teachers.	⓪	①	②	③	④

PROFESSIONAL DEVELOPMENT ACTIVITIES IN MATHEMATICS EDUCATION

In answering the following items, consider all the professional development activities related to mathematics content or mathematics education that you have participated in between ***June 1st of last year and May 31st of this year****. Professional development refers to a variety of activities intended to enhance your professional knowledge and skills, including in-service training, teacher networks, course work, institutes, committee work, and mentoring. In-service training is professional development offered by your school or district to enhance your professional responsibilities and knowledge. Workshops are short term learning opportunities that can be located in your school or elsewhere. Institutes are longer term professional learning opportunities, for example, of a week or longer in duration.*

	How Often?	**How many hours?**
	⓪ Never ③ 3-4 times	⓪ N/A ③ 16-35
	① Once ④ 5-10 times	① 1-6 hrs. ④ 36-60
	② Twice ⑤ > 10 times	② 7-15 hrs. ⑤ 61+ hrs.
102 For the time period referenced above, how often, and for how many total hours, have you participated in *workshops or in-service training related to mathematics or math education* ?	⓪ ① ② ③ ④ ⑤	⓪ ① ② ③ ④ ⑤
103 For the time period referenced above, how often, and for how many total hours, have you participated in *summer institutes related to mathematics or math education* ?	⓪ ① ② ③ ④ ⑤	⓪ ① ② ③ ④ ⑤
104 For the time period referenced above, how often have you attended *college courses related to mathematics or math education* and about how many hours did you spend in class?	⓪ ① ② ③ ④ ⑤	⓪ ① ② ③ ④ ⑤

Between June 1st of last year and May 31st of this year, how frequently have you engaged in each of the following activities related specifically to the teaching and learning of mathematics?

	Never	Once or twice a **year**	Once or twice a **term**	Once or twice a **month**	Once or twice a **week**	**Almost daily**
105 Attended conferences related to mathematics or math education.	⓪	①	②	③	④	⑤
106 Participated in a teacher study group.	⓪	①	②	③	④	⑤
107 Participated in a teacher network or collaborative of teachers supporting professional development.	⓪	①	②	③	④	⑤
108 Acted as a coach or mentor to other teachers or staff in your school.	⓪	①	②	③	④	⑤
109 Received coaching or mentoring.	⓪	①	②	③	④	⑤
110 Participated in a committee or task force focused on curriculum and instruction.	⓪	①	②	③	④	⑤
111 Engaged in informal self-directed learning (for example, discussion with colleague about math or math education topics, read a journal article on math or math education, use the internet to enrich knowledge and skills).	⓪	①	②	③	④	⑤

Thinking again about all of your professional development activities in mathematics or mathematics education between June 1st of last year and May 31st of this year, how often have you:

		Never	Rarely	Some times	Often
112	Observed demonstrations of teaching techniques.	⓪	①	②	③
113	Led group discussions.	⓪	①	②	③
114	Developed curricula or lesson plans, which other participants or the activity leader reviewed.	⓪	①	②	③
115	Reviewed student work or scored assessments.	⓪	①	②	③
116	Developed assessments or tasks as as part of a formal professional development activity.	⓪	①	②	③
117	Practiced what you learned and received feedback as part of a professional development activity.	⓪	①	②	③
118	Received coaching or mentoring in the classroom.	⓪	①	②	③
119	Given a lecture or presentation to colleagues.	⓪	①	②	③

Thinking about all of your professional development activities between June 1st of last year and May 31st of this year, indicate how often they have been:

		N/A	Never	Rarely	Some times	Often
120	Designed to support the school-wide improvement plan adopted by your school.	⑨	⓪	①	②	③
121	Consistent with your mathematics department or grade level plan to improve teaching.	⑨	⓪	①	②	③
122	Consistent with your own goals for your professional development.	⑨	⓪	①	②	③
123	Based explicitly on what you had learned in earlier professional development activities.	⑨	⓪	①	②	③
124	Followed up with related activities that built upon what you learned as part of the activity.	⑨	⓪	①	②	③

Between June 1st of last year and May 31st of this year, have you participated in professional development activities in mathematics or mathematics education in the following ways?

		No	Yes
125	I participated in professional development activities with most or all of the teachers from my school.	⓪	①
126	I participated in professional development activities with most or all of the teachers from my department or grade level.	⓪	①
127	I participated in professional development activities *not* attended by other staff members from my school.	⓪	①
128	I discussed what I learned with other teachers in my school or department who did *not* attend the activity.	⓪	①

How much *emphasis* did your professional development activities in math or math education place on the following topics?

		None	Slight	Moderate	Great
129	State mathematics content standards (for example, what they are and how they are used).	⓪	①	②	③
130	Alignment of mathematics instruction to curriculum.	⓪	①	②	③
131	Instructional approaches (for example, use of manipulatives).	⓪	①	②	③
132	In-depth study of mathematics or specific concepts within mathematics (for example, fractions).	⓪	①	②	③
133	Study of how children learn particular topics in mathematics.	⓪	①	②	③
134	Individual differences in student learning.	⓪	①	②	③
135	Meeting the learning needs of special populations of students (for example, second language learners; students with disabilities).	⓪	①	②	③
136	Classroom mathematics assessment (for example, diagnostic approaches, textbook-developed tests, teacher-developed tests).	⓪	①	②	③
137	State or district mathematics assessment (for example, preparing for assessments, understanding assessments, or interpreting assessments).	⓪	①	②	③
138	Interpretation of assessment data for use in mathematics instruction.	⓪	①	②	③
139	Technology to support student learning in mathematics.	⓪	①	②	③

TEACHER CHARACTERISTICS

140 Please indicate your gender.

Female	Male
①	②

141 Please indicate your ethnicity/race.

Indicate all that apply

① American Indian or Alaska Native
② Asian
③ Black or African American
④ Hispanic or Latino
⑤ Native Hawaiian or Other Pacific Islander
⑥ White

	Less than 1 year	1 - 2 years	3 - 5 years	6 - 8 years	9 - 11 years	12 - 15 years	More than 15 years
142 How many years have you taught mathematics prior to this year?	⓪	①	②	③	④	⑤	⑥
143 How long have you been assigned to teach at your current school?	⓪	①	②	③	④	⑤	⑥

	Does not apply	BA or BS	MA or MS	Multiple MA or MS	Ph.D. or Ed.D.	Other
144 What is the highest degree you hold?	⓪	①	②	③	④	⑤

145 What was your major field of study for the bachelors degree?

① Elementary Education
② Middle School Education
③ Mathematics Education
④ Mathematics
⑤ Mathematics Education **and** Mathematics
⑥ Other Disciplines (includes other Education fields, Science, History, English, Foreign Languages, etc.)

146 **If applicable**, what was your **major field** of study for the **highest degree you hold** beyond a bachelors degree?

① Elementary Education
② Middle School Education
③ Mathematics Education
④ Mathematics
⑤ Mathematics Education **and** Mathematics
⑥ Other Disciplines (includes other Education fields, Science, History, English, Foreign Languages, etc.)

147 What type(s) of state certification do you currently have?

Indicate all that apply

① Emergency or Temporary Certification
② Elementary Grades Certification
③ Middle Grades Certification
④ Secondary certification in a field **other** than mathematics
⑤ Secondary Mathematics Certification

FORMAL COURSE PREPARATION

Please indicate the number of *quarter or semester courses* that you have taken at the undergraduate or graduate level in each of the following areas:

		(Number of courses)									
		0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17+
148	Refresher mathematics courses (e.g., algebra, geometry)	⓪	①	②	③	④	⑤	⑥	⑦	⑧	⑨
149	Advanced mathematics courses (e.g., calculus, statistics)	⓪	①	②	③	④	⑤	⑥	⑦	⑧	⑨
150	Mathematics Education	⓪	①	②	③	④	⑤	⑥	⑦	⑧	⑨

This is the end of the Instructional Practices portion of the survey. Please continue on to complete the Instructional Content portion. Thank you.

Council of Chief State School Officers
Wisconsin Center for Education Research

SURVEYS OF ENACTED CURRICULUM ®

Survey Of Instructional Content
Teacher Survey
Grades K-8
Mathematics

The following pages request information regarding topic coverage and your expectations for students in the target mathematics class **for the current school year.** The content matrix that follows contains lists of discrete topics associated with mathematics instruction. The categories and the level of specificity are intended to gather information about content across a wide variety of programs. It is not intended to reflect any recommended or prescribed content for the grade level and may or may not be reflective of your local curriculum.

Please read the instructions on the next two pages carefully before proceeding.

Step 1: Indicate topics not covered in this class

Begin by reviewing the entire list of topics identified in the topics column of each table, noting how topics are grouped. After reviewing each topic within a given grouping, if none of the topics listed within that group receive any instructional coverage, circle the "<None>" in the "Time on Topic" column for that group. For any individual topic which is not covered in this mathematics class, fill in the circled "zero" in the "Time on Topic" column. (Not necessary for those groups with "<None>" circled.) Any topics or topic group so identified will not require further response. [Note, for example, that the class described in the example below did not cover any topics under "Instructional Technology" and so "<None>" is circled.]

Step 2: Indicate the amount of time spent on each topic covered in this class

Examine the list of topics a second time. This time note the amount of coverage devoted to each topic by filling in the appropriately numbered circle in the "Time on Topic" column based upon the following codes:

0 = None, not covered
1 = Slight Coverage (less than one class/lesson)
2 = Moderate Coverage (one to five classes/lessons)
3 = Sustained Coverage (more than five classes/lessons)

Step 1 **Step 2**

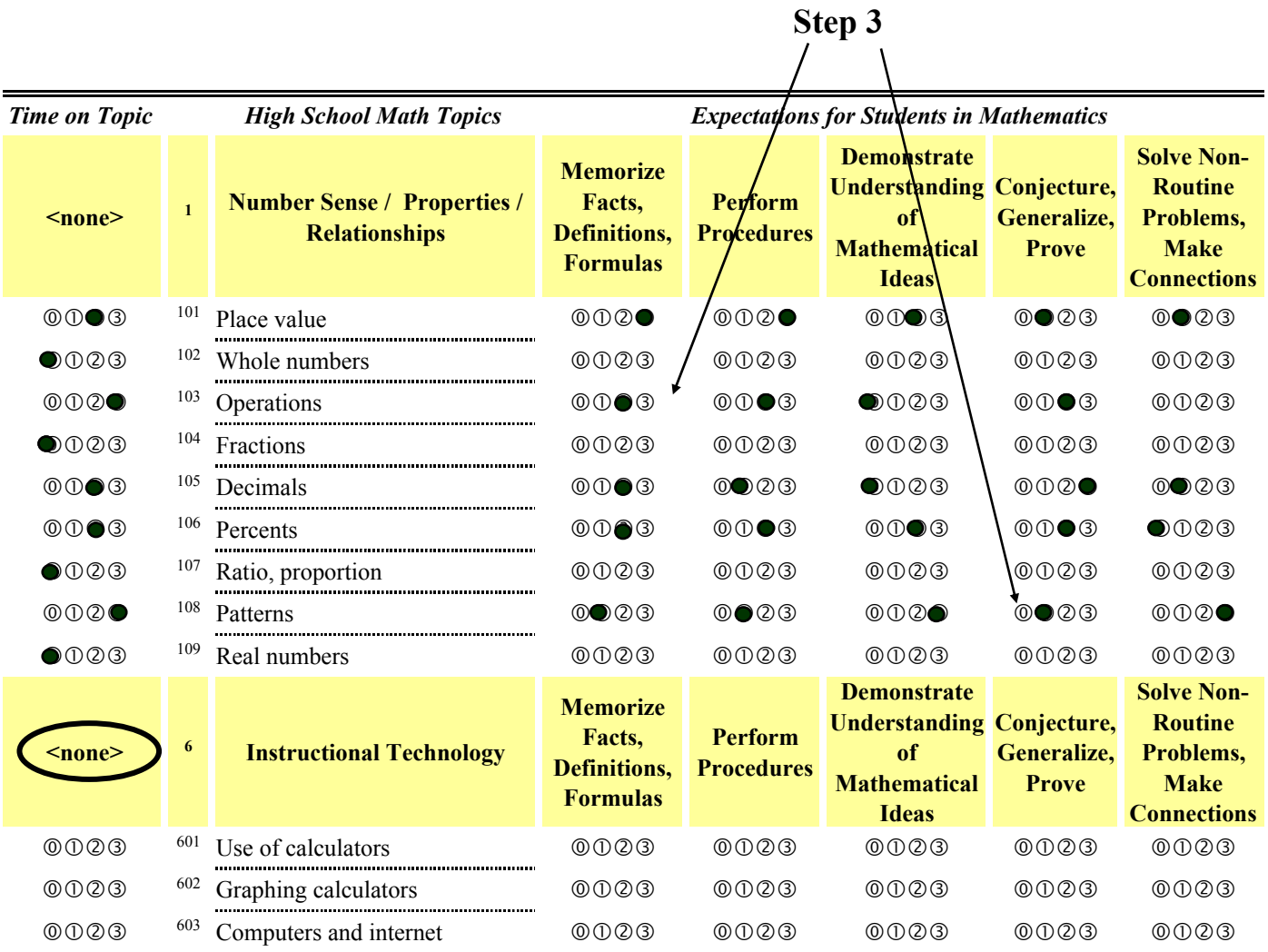
Time on Topic		*High School Math Topics*	*Expectations for Students in Mathematics*				
<none>	1	**Number Sense / Properties / Relationships**	**Memorize Facts, Definitions, Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems, Make Connections**
0①●③	101	Place value	0①②③	0①②③	0①②③	0①②③	0①②③
●①②③	102	Whole numbers	0①②③	0①②③	0①②③	0①②③	0①②③
0①②●	103	Operations	0①②③	0①②③	0①②③	0①②③	0①②③
●①②③	104	Fractions	0①②③	0①②③	0①②③	0①②③	0①②③
0①●③	105	Decimals	0①②③	0①②③	0①②③	0①②③	0①②③
0①●③	106	Percents	0①②③	0①②③	0①②③	0①②③	0①②③
●①②③	107	Ratio, proportion	0①②③	0①②③	0①②③	0①②③	0①②③
0①②●	108	Patterns	0①②③	0①②③	0①②③	0①②③	0①②③
●①②③	109	Real numbers	0①②③	0①②③	0①②③	0①②③	0①②③
<none>	6	**Instructional Technology**	**Memorize Facts, Definitions, Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems, Make Connections**
0①②③	601	Use of calculators	0①②③	0①②③	0①②③	0①②③	0①②③
0①②③	602	Graphing calculators	0①②③	0①②③	0①②③	0①②③	0①②③
0①②③	603	Computers and internet	0①②③	0①②③	0①②③	0①②③	0①②③

Step 3: Indicate relative emphasis of each student expectation for every topic taught

The final step in completing this section of the survey concerns your expectations for what students should know and be able to do. For each topic area, please provide information about the relative amount of instructional time spent on work designed to help students reach each of the listed expectations by filling in the appropriately numbered circle using the response codes listed below. (Note: To the left of each content sheet you will find a list of descriptors for each of the five expectations for students.)

0 = No emphasis	(Not an expectation for this topic)
1 = Slight emphasis	(Accounts for less than 25% of the time spent on this topic)
2 = Moderate emphasis	(Accounts for 25% to 33% of the time spent on this topic)
3 = Sustained emphasis	(Accounts for more than 33% of the time spent on this topic)

Note: A code of "3" should typically be given for only one, and no more than two expectation categories within any given topic. No expectation codes should be filled-in for those topics for which no coverage is provided (i.e., circled "0" or "<None>").



Time on Topic		*High School Math Topics*	*Expectations for Students in Mathematics*				
<none>	**1**	**Number Sense / Properties / Relationships**	**Memorize Facts, Definitions, Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems, Make Connections**
0 1 ● 3	101	Place value	0 1 2 ●	0 1 2 ●	0 1 ● 3	0 ● 2 3	0 ● 2 3
● 1 2 3	102	Whole numbers	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
0 1 2 ●	103	Operations	0 1 ● 3	0 1 ● 3	● 1 2 3	0 1 ● 3	0 1 2 3
● 1 2 3	104	Fractions	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
0 1 ● 3	105	Decimals	0 1 ● 3	0 ● 2 3	● 1 2 3	0 1 2 ●	0 ● 2 3
0 1 ● 3	106	Percents	0 1 ● 3	0 1 ● 3	0 1 ● 3	0 1 ● 3	● 1 2 3
● 1 2 3	107	Ratio, proportion	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
0 1 2 ●	108	Patterns	0 ● 2 3	0 ● 2 3	0 1 2 ●	0 ● 2 3	0 1 2 ●
● 1 2 3	109	Real numbers	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
<none>	**6**	**Instructional Technology**	**Memorize Facts, Definitions, Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems, Make Connections**
0 1 2 3	601	Use of calculators	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
0 1 2 3	602	Graphing calculators	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
0 1 2 3	603	Computers and internet	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3

Expectations for Students in Mathematics

Memorize Facts/ Definitions/ Formulas

- Recite basic mathematics facts
- Recall mathematics terms & definitions
- Recall formulas and computational procedures

Perform Procedures

- Use numbers to count, order, denote
- Do computational procedures or algorithms
- Follow procedures/instructions
- Solve equations/formulas/routine word problems
- Organize or display data
- Read or produce graphs and tables
- Execute geometric constructions

Conjecture/ Generalize/ Prove

- Determine the truth of a mathematical pattern or proposition
- Write formal or informal proofs
- Recognize, generate or create patterns
- Find a mathematical rule to generate a pattern or number sequence
- Make and investigate mathematical conjectures
- Identify faulty arguments or misrepresentations of data
- Reason inductively or deductively

Demonstrate Understanding of Mathematical Ideas

- Communicate mathematical ideas
- Use representations to model mathematical ideas
- Explain findings and results from data analysis strategies
- Develop/explain relationships between concepts
- Show or explain relationships between models, diagrams, and/or other representations

Solve Non-routine Problems/ Make Connections

- Apply and adapt a variety of appropriate strategies to solve non-routine problems
- Apply mathematics in contexts outside of mathematics
- Analyze data, recognize patterns
- Synthesize content and ideas from several sources

Response Codes
Time on Topic

0 = None
(Not Covered)

1 = Slight coverage
(Less than one class/lesson)

2 = Moderate coverage
(One to five classes/lessons)

3 = Sustained coverage
(More than five classes/lessons)

Response Codes
Expectations for Students

0 = No emphasis
(Not a performance goal for this topic)

1 = Slight emphasis
(Less than 25% of time on this topic)

2 = Moderate emphasis
(25% to 33% of time on this topic)

3 = Sustained emphasis
(More than 33% of time on this topic)

Time on Topic		*K-8 Grade Mathematics Topics*	*Expectations for Students in Mathematics*				
<none>	1	**Number Sense / Properties / Relationships**	**Memorize Facts/ Definitions/ Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems/Make Connections**
⓪ ① ② ③	101	Place value	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	102	Whole numbers	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	103	Operations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	104	Fractions	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	105	Decimals	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	106	Percents	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	107	Ratio, proportion	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	108	Patterns	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	109	Real numbers	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	110	Exponents, scientific notation	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	111	Factors, multiples, divisibility	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	112	Odds, evens, primes, composites	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	113	Estimation	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	114	Order of operations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	115	Relationships between operations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	116	Mathematical properties (e.g., distrbutive property)	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
<none>	2	**Operations**	**Memorize Facts/ Definitions/ Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems/Make Connections**
⓪ ① ② ③	201	Add, subtract whole numbers	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	202	Multiplication whole numbers	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	203	Division whole numbers	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	204	Combinations of add, subtract, multiply, divide by whole numbers	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	205	Equivalent fractions	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	206	Add, subtract fractions	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	207	Multiply fractions	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	208	Divide fractions	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	209	Combinations of add, subtract, multiply, divide fractions	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	210	Ratio, proportion	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	211	Representations of fractions	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	212	Decimal equivalent to fraction	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	213	Add, subtract decimals	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	214	Multiply decimals	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	215	Divide decimals	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	216	Combinations of add, subtract, multiply, divide decimals	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③

Time on Topic		*K-8 Grade Mathematics Topics*	*Expectations for Students in Mathematics*				
<none>	3	**Measurement**	**Memorize Facts/ Definitions/ Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems/Make Connections**
⓪ ① ② ③	301	Use of measuring instruments	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	302	Theory (arbitrary, standard units, unit size)	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	303	Conversions	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	304	Metric (SI) system	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	305	Length, perimeter	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	306	Area, volume	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	307	Surface Area	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	308	Direction, Location, Navigation	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	309	Angles	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	310	Circles (e.g,. pi, radius, area)	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	311	Mass (weight)	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	312	Time, temperature	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	313	Money	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	314	Rate	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	315	Range	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
<none>	4	**Algebraic Concepts**	**Memorize Facts/ Definitions/ Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems/Make Connections**
⓪ ① ② ③	401	Absolute value	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	402	Use of variables	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	403	Evaluation of formulas, expressions, equations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	404	One-step equations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	405	Coordinate Plane	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	406	Patterns	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	407	Multi-step equations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	408	Inequalities	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	409	Linear, non-linear relations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	410	Rate of change/slope/line	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	411	Operations on polynomials	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	412	Factoring	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	413	Square roots & radicals	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	414	Operations on radicals	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	415	Rational expressions	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	416	Functions and relations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	417	Quadratic equations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	418	Systems of equations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	419	Systems of inequalities	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	420	Matrices, determinants	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	421	Complex numbers	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③

Time on Topic		*K-8 Grade Mathematics Topics*	*Expectations for Students in Mathematics*				
<none>	5	**Geometric Concepts**	**Memorize Facts/ Definitions/ Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems/Make Connections**
⓪ ① ② ③	501	Basic terminology	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	502	Points, lines, rays, and vectors	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	503	Patterns	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	504	Congruence	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	505	Similarity	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	506	Triangles	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	507	Quadrilaterals	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	508	Circles	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	509	Angles	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	510	Polygons	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	511	Polyhedra	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	512	Models	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	513	3-D relationships	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	514	Symmetry	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	515	Transformations (e.g., flips, turns)	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	516	Pythagorean Theorem	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	517	Simple trigonometric ratios	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
<none>	6	**Data Analysis / Probability / Statistics**	**Memorize Facts/ Definitions/ Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems/Make Connections**
⓪ ① ② ③	601	Bar graph, histogram	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	602	Pie charts, circle graphs	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	603	Pictographs	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	604	Line graphs	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	605	Stem and Leaf plots	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	606	Scatter plots	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	607	Box plots	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	608	Mean, median, mode	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	609	Line of best fit	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	610	Quartiles, percentiles	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	611	Sampling, Sample spaces	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	612	Simple probability	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	613	Compound probability	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	614	Combinations and permutations	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	615	Summarize data in a table or graph	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③

Time on Topic		*K-8 Grade Mathematics Topics*		*Expectations for Students in Mathematics*				
<none>	**7**	**Instructional Technology**	**Memorize Facts/ Definitions/ Formulas**	**Perform Procedures**	**Demonstrate Understanding of Mathematical Ideas**	**Conjecture, Generalize, Prove**	**Solve Non-Routine Problems/Make Connections**
⓪ ① ② ③	701	Use of calculators	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	702	Graphing calculators	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③
⓪ ① ② ③	703	Computers and internet	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③	⓪ ① ② ③

END OF SURVEY

Thank you for your participation!