

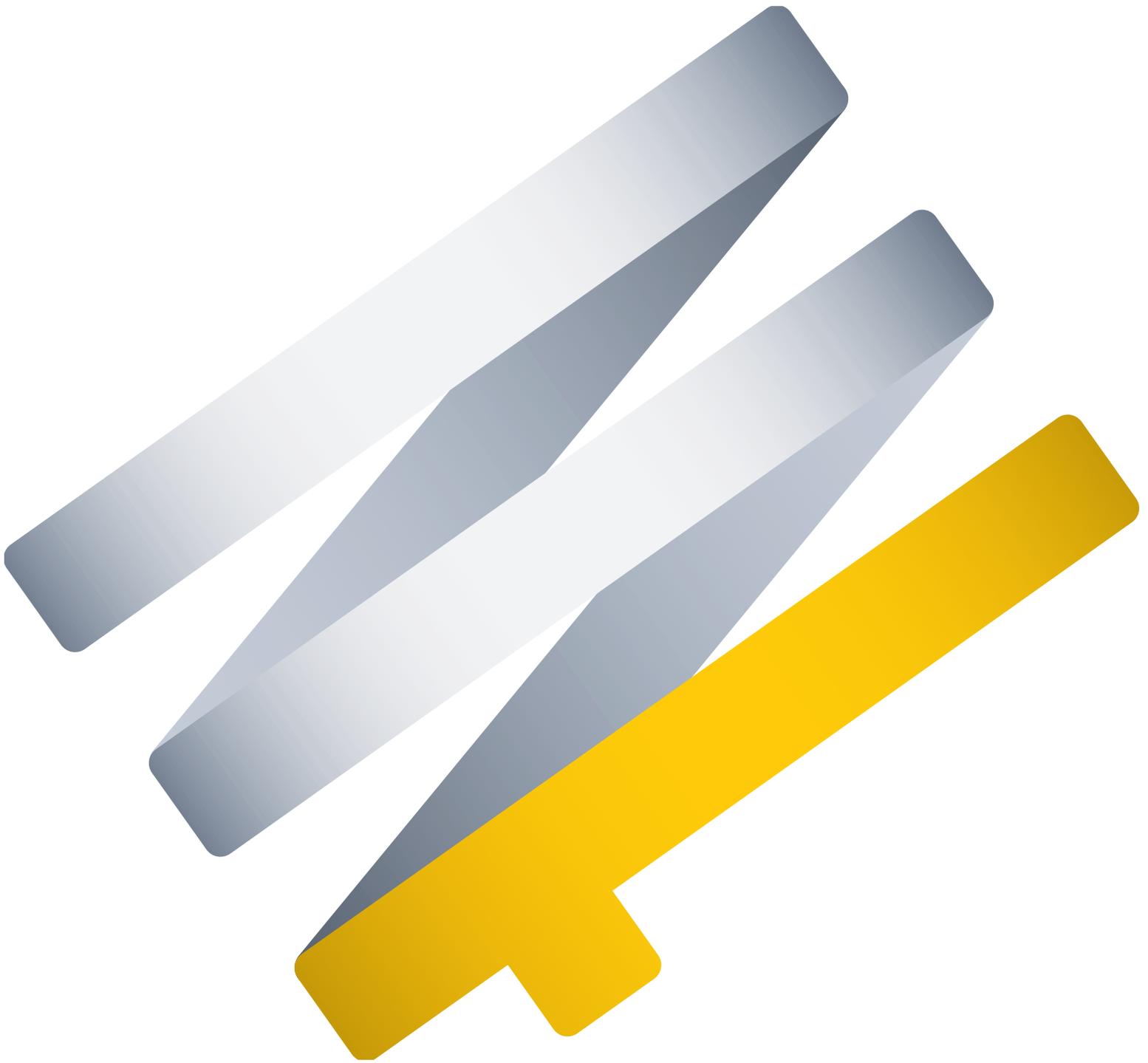


MET Extension **Video Tags**



TeachingWorks

UNIVERSITY of MICHIGAN SCHOOL of EDUCATION



The Measures of Effective Teaching (MET) Extension project, funded by the Bill & Melinda Gates Foundation, is cataloguing and making accessible to researchers a large collection of videos of mathematics and English language arts teaching in United States classrooms.

The collection will include over 15,000 videos of classroom teaching collected from more than three hundred teachers in grades four through nine during the 2011-2012 and 2012-2013 academic years. It will be a valuable resource for individuals and organizations working in education-related fields, including practitioners, teacher education institutions, professional development providers, educational materials developers, and researchers. When completed in late Fall 2013, the collection will be made available to researchers through the Inter-university Consortium for Political and Social Research (ICPSR) and to individuals and groups interested in other educational uses through the Brandon Center Digital Archive at the University of Michigan. Patrons of the digital archive will be able to search and browse the collection in flexible ways, create “virtual clips” to show others, produce their own playlists, tags, and comments, and also help to improve the collection over time through their feedback and shared work.

How Videos Are Accumulated and Prepared for the Collection

The teachers participating in this project started recording lessons in December 2011. They are using specially designed camera units that allow for capture of the classroom, the board, and high-quality audio from both the teacher and the students. Westat, a research and analysis firm with extensive technical expertise in various data collection methods, is working with districts, schools, and teachers to collect classroom lessons and create video files that can be viewed and used online. Videos will then be “tagged” with meaningful labels allowing users to easily search and find relevant examples of teaching practice to match their interests and needs. National experts based at TeachingWorks have developed the tagging scheme based on high-leverage teaching practices and the Common Core State Standards, with input from teacher training institutions and other organizations.

The MET Extension tag scheme was developed during the first half of 2012 and tested during a two week pilot program in August 2012 and throughout the fall.

The scheme includes six English language arts (ELA) forms and seven mathematics forms. Each form contains between eight and twelve tag items. TeachingWorks subject matter experts created written descriptions for each tag item with bulleted “examples” and “what this tag is not” text. TeachingWorks experts also identified two short video clip exemplars for every tag item and two five-minute video clip training segments for each form. The video clip exemplars were chosen from MET Extension video files. All items were piloted and where agreement didn’t meet the threshold (75%) with master-taggers, the tags were reviewed and revisions were considered.

The tags will be used in labeling and cataloguing the MET Extension video collection. (Where possible, these tags were designed so they could be readily mapped to the structures of the Learning Research Metadata Initiative [LRMI] specifications.) These tags will allow users to search the collection easily and to locate videos with specific content or characteristics.

Overview

of the Tag Scheme

TeachingWorks, a national organization based at the University of Michigan, has developed a set of tags for use in labeling and cataloguing the MET Extension video collection. These tags will allow users to search the collection easily and to locate videos with specific content or characteristics. There are two kinds of tags:

- **Instructional practices tags**, or tags related to specific instructional practices and strategies that are being used in a lesson, such as whole-class discussions, small group work, and particular classroom management practices. Many of these tags correspond to the TeachingWorks high-leverage practices, which are instructional practices that are fundamental to competent teaching.
- **Common Core State Standards (CCSS) tags**, or tags related to the Common Core State Standards in English language arts or mathematics that are being addressed in the instruction in the video. Not included are tags that would apply only at grades K-1 or above grade 9 because the MET Extension videos are from fourth through ninth grade classrooms.

Although the same instructional practices tags apply to both mathematics and English language arts, in some cases the descriptions of the tags differ slightly depending on the subject. In such cases, the tags are referred to with an “e” for English language arts and an “m” for mathematics in the tags glossary.

The tags are applied to video at five-minute intervals. In any given five-minute segment, multiple tags may be applied. Tags are not mutually exclusive within a given time segment, but the descriptions of tags were written so that the application of any given tag didn’t require the application of a second tag.

What tags are and what they are not

It is important to note that the tags based on the Common Core State Standards (CCSS) differ from the actual standards. The CCSS comprise a set of learning goals for K-12 students. In contrast, the tags describe what students and teachers are working on together in the classroom in relation to those learning goals. They do not suggest that students have learned specific topics or practices.

The tags are also not evaluative. That is, they do not indicate the quality or integrity with which a specific aspect of content is being taught or learned. They are descriptive markers indicating that a particular aspect of mathematics or English language arts is being worked on by the class, by either teachers or students.

The tags map to the CCSS, but the tags are not always in one-to-one correspondence with the Common Core. In some cases, the items from the CCSS were reorganized to make better or more usable grain-sized tags, particularly in mathematics. For example, one of the mathematical practices items that is part of the Common Core is, “Students make sense of problems and persevere in solving them.” For the purposes of the MET Extension project, this practice was divided into two tags, one for making sense of and interpreting problems and the other for work on persisting with difficult problems. This allows the collection to be labeled more precisely.





Instructional Practices

MET Extension **Video Tags**

Instructional Practices **Tag Glossary**

Instructional Practices Tags	
Item ID#	Item Short Description
TW01	Whole class format
TW02	Small group or partner work
TW03	Individual work
TW04	Launching a task or activity
TW05	Circulating
TW06e and TW06m	Explaining content, including modeling and using representations and examples
TW07	Implementing norms and routines for academic discourse and work
TW08e and TW08m	Discussion
TW09e and TW09m	Small-group teaching
TW10e and TW10m	Teacher working with a single student
TW11	Implementing organizational routines, procedures, and strategies to support a learning environment
TW12	Engaging in a relationship-building conversation with a student
TW13	Checking for student understanding during a lesson using informal assessment techniques
TW14	Administering a test, a quiz, or another method of formal, summative assessment
TW15	Providing oral or written feedback to students on their work
TW16	Using technology, e.g., SmartBoard, calculators, etc.
TW17e and TW17m	Giving directions
TW18	Making a transition from one part of a lesson or activity to the next
TW19	Managing off-task behavior
TW20	Opening the class
TW21	Closing the class

Instructional formats (TW01 – TW03)
 Instructional practices (TW04 – TW21)

e - English language arts descriptions
 m - Mathematics descriptions

TW01 Whole Class Format

The entire class is talking, listening, or working together. Students are not divided into groups or working independently.

- The teacher might be working with the entire class at once.
- The teacher might be standing to the side while a student presents to the whole class.

This tag does not apply to instances where all students are working on the same assignment, but they are doing it independently or with a partner. In those cases, tag either individual work or small group or partner work as indicated.

TW02 Small Group or Partner Work

Students are divided into groups or pairs and are working with each other

- The students are working in groups or pairs.
- The teacher might be circulating, sitting at his or her desk, or working with individuals or groups.

Not a reference to what is going on in small group format (e.g., teacher working with a group, teacher sitting at desk).

TW03 Individual Work

Students are working individually on the same or different tasks.

- The students are working by themselves.
- The teacher might be circulating, sitting at his or her desk, or working with individuals.

Not a reference to what is going on in individual format (e.g., drill and practice, writing).

TW04 Launching a Task or Activity

The teacher is beginning an instructional activity or assignment. The teacher might pose a question, explain an assignment, or initiate student work with a text, experiment, or problem. The teacher might set the purpose of the activity or might otherwise motivate and set the context for the work, provide guidelines about how to go about working on it, and get students underway. This might occur more than once in a period if more than one task or activity is used.

- The teacher might read a task aloud and engage students in analyzing what is involved in the work.
- The teacher might put a task on the overhead and ask students to work on it for a couple of minutes and then stop them to answer questions that they might have.
- The teacher might show a task and then do an example to help the students get started.
- The teacher might pass out a sheet with an assignment and ask students to explain the task involved.

This does not apply to the teacher just opening the class or making a transition. This also does not apply to a teacher simply starting students on an assignment (e.g., “Turn to page 34”), or providing organizational or behavioral reminders.

TW05 Circulating

The teacher is walking intentionally around the room while students work in groups or individually. The teacher might be observing students, answering questions, or intervening to support or direct students' academic work.

- The teacher might be moving around the classroom, looking at or interacting with students as they work.
- The teacher might be walking around and observing students.
- The teacher might be walking around and occasionally briefly helping single or small groups of students.

This tag does not include managing off-task behavior. This tag also does not apply to all times that the teacher is walking around (e.g., setting out materials for the next activity or tidying the room).

TW06e Explaining Content, including modeling and using representations and examples

The teacher is explaining academic content (ideas, concepts, processes, procedures), by talking, showing things, demonstrating, or by using visual tools such as diagrams or tables, or concrete materials such as blocks. The teacher might be modeling a task, a process, or a procedure and also narrating and making explicit the process or thinking involved in a specific task or procedure. Materials might or might not be used.

- The teacher might show how to carry out a specific writing strategy.
- The teacher might explain a concept in literary analysis (e.g., theme).
- The teacher might use a diagram to show the structure of a text.

This tag does not include instances when the teacher is explaining how to do an activity (see "giving directions").

TW06m Explaining content, including modeling and using representations and examples

The teacher is explaining academic content (ideas, concepts, processes, procedures), by talking, showing things, demonstrating, or by using visual tools such as diagrams or tables, or concrete materials such as blocks. The teacher might be modeling a task, a process, or a procedure and also narrating and making explicit the process or thinking involved in a specific task or procedure. Materials might or might not be used.

- The teacher might use a visual diagram to explain the meaning of a fraction.
- The teacher might use base ten materials to explain a computational procedure.

This tag does not include instances when the teacher is explaining how to do an activity (see "giving directions").

TW07 Implementing norms and routines for academic discourse and work

The teacher is making explicit, commenting on, reviewing or reinforcing, or teaching students specific norms and routines for academic discourse. Examples include listening, critiquing arguments, providing evidence, making hypotheses and claims, using language, and asking questions.

- The teacher explicitly identifies, defines, or specifies the norm or routine.
- The teacher models the norm or routine.
- The teacher explains instances in which the norm or routine should be followed.
- The teacher might explain the reason for the norm or routine.
- The teacher might engage students in rehearsing the norm or routine.
- The teacher might refer to an established norm or routine, or might reinforce, call for, or praise its use.

This tag does not include work on organizational norms and routines such as passing out papers or lining up for recess. Do not use this tag when students appear to be enacting these norms but there is no explicit attention to it by the teacher (e.g., commenting on a particular norm or reminding students about a routine).

TW08e Discussion

The teacher is leading or facilitating a discussion among students. At least several students are contributing to it, and the teacher seeks to involve multiple children in listening and speaking. The discussion involves sustained interaction and is focused on a text, issue, problem, or question, where the goal is to work on developing collective understanding, analysis, or solutions.

- The teacher might facilitate a discussion among students about alternative interpretations of a short story.
- The teacher might conduct a discussion about a draft of one student's essay.
- The teacher might ask students to comment on or respond to one another's contributions.
- The teacher might ask students whether they agree or disagree.
- The teacher might ask a student to repeat what another student has said.

This tag does not include instances in which the teacher is merely talking to the class, or repeated call-and-response, when the teacher asks a series of individual questions (e.g., to practice, reinforce, or review ideas or skills) and students give answers.

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- The teacher might facilitate a discussion of alternative solutions to a mathematics problem.
- The teacher might conduct a discussion of strategies to approach a complex problem.
- Students might talk about the meaning of a mathematics problem and what it is asking.
- The teacher might ask students to comment on or respond to one another's contributions.
- The teacher might ask students whether they agree or disagree.
- The teacher might ask a student to repeat what another student has said.

This tag does not include instances in which the teacher is merely talking to the class, or repeated call-and-response, when the teacher asks a series of individual questions (e.g., to practice, reinforce, or review ideas or skills) and students give answers.

TW09e Small-group teaching

The teacher is providing instruction to a small group of students. The other students in the class are working on other assignments (or a single other task). The teacher likely has the students at a table or together somewhere in the class. The teacher is working with the students on a task, text, problem, or question, or is providing instruction on a specific skill or idea.

- The teacher might be working with a small group of students conducting a guided reading lesson.
- The teacher might be working with a small group of students on a specific writing strategy.

This tag does not apply when students are working in groups on their own, without the teacher.

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- The teacher might be working with a small group on a math topic.
- The teacher might be working with a small group on a math task that they have already been working on together.

This tag does not apply when students are working in groups on their own, without the teacher.

TW10e Teacher working with a single student

The teacher is working with an individual student. The teacher might be discussing an issue or a problem with the student, or might be eliciting the student's thinking or helping the student with a specific task or skill. This should be a somewhat sustained interaction lasting at least a few minutes.

- The teacher might be conducting a writing conference with a single student.
- The teacher might be reading with an individual student.

This tag does not apply when a student is working individually without the teacher. It also does not apply when a teacher stops only briefly to interact with a single student while circulating the room or when the interaction is not about academic content.

TW10m Teacher working with a single student

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- The teacher might be helping a student with a specific mathematics task.
- The teacher might be reviewing a concept with a single student.

This tag does not apply when a student is working individually without the teacher. It also does not apply when a teacher stops only briefly to interact with a single student while circulating the room or when the interaction is not about academic content.

TW11 Implementing organizational routines, procedures, and strategies to support a learning environment

The teacher is implementing routine ways of carrying out classroom tasks, in order to manage the classroom for student engagement and learning, to maximize the time available for learning, and to minimize disruptions and distractions. This includes any instance in which the teacher is visibly organizing time, space, materials, and students or deliberately teaching students how to complete tasks such as lining up at the door, passing out papers, or asking to participate in class discussion. The tags might label moments in which the teacher is demonstrating an organizational routine, engaging students in practicing the routine, or pointing out the routine to the class. This tag might label moments both between and within activity segments.

- The teacher might be implementing a routine for having students clean up materials and put them away.
- The teacher might be following an established procedure to get into groups.
- The teacher might be deploying a routine for calling on students in a discussion.
- The teacher might use a routine for collecting homework.
- The teacher might be introducing a procedure that will be used routinely for a specific type of activity.
- The teacher might be explaining a procedure for obtaining materials for a particular type of work.
- The teacher might comment on and reinforce students' use of an established routine or procedure.
- The teacher might remind students to use a specific procedure or praise students for using an established routine.
- The teacher might model the use of a specific procedure.

This tag does not apply to the teacher managing off-task behavior. Also, do not use this tag if the teacher's focus is on norms and routines for academic discourse. Do not apply this tag if there is no explicit attention to the use of a routine or procedure (for example, students put away materials efficiently but there is no explicit comment or reminder about it).

TW12 Engaging in a relationship-building conversation with a student

The teacher is conducting a one-on-one conversation with a student for the purposes of getting to know that student, inquiring about that student on a personal level, or problem-solving with that student on a personal level. It does not include instances in which a teacher is assisting a student one-on-one with academic work; instead this is focused on conversations that are of a personal nature. It includes conversations that might take place at the beginning or end of class or at the beginning or end of the school day. It includes only one-on-one conversations (essentially private), and not conversations that take place between a teacher and a single student but in front of a small or large group of students or between a teacher and a group of students.

- The teacher might be talking with an individual student about something related to school, but not helping the student with specific academic work.
- The teacher might be talking with a student at his or her desk or privately.

This tag does not include instances in which a teacher is assisting a student one-on-one with academic work. This tag does not include conversations between the teacher and multiple students; it only includes one-on-one conversations. This tag does not apply when the teacher is simply commenting to a student without any conversation. Do not use this tag unless the conversation is audible enough to determine its nature and focus.

TW13 Checking for student understanding during a lesson using informal assessment techniques

The teacher is asking questions or posing short tasks designed to provide information about students' understanding or progress with a particular idea or skill. The teacher might pass out a short task, or put a question on the board. The goal is to briefly check on how students are understanding or progressing with the material, or to assess whether students are following the lesson.

- The teacher might be asking questions or posing tasks to check understanding.
- The teacher might ask students to give a particular signal if they understand or got an answer correct (for example, thumbs up).
- The teacher might use an "exit ticket" or other very short task at the end of a lesson or lesson segment to get information about individual students' understanding or skill.

This tag does not include instances in which the teacher is asking probing questions that are designed to stimulate discussion or challenge students' thinking. It only applies to instances in which the teacher is explicitly trying to determine what students understand.

It also does not include activities or assignments that are designed to provide students with practice of new material, even if the activity or assignment could be used to check student understanding.

TW14 Administering a test, a quiz, or another method of formal, summative assessment

The teacher is using a quiz or test to appraise students' learning and comprehension of material that has been taught. In this instance, the assessment is formal and takes up all or a substantial amount of class time.

In most cases, the grade will count for a fairly significant portion of a student's final course grade. Summative assessments usually mark the end of a unit of instruction.

- Students might take a quiz or test.
- Students might complete and hand in a major paper or project.
- Students might present final projects in class.

Do not use this tag for a pop quiz, "exit ticket," or informal show of hands to indicate whether students have understood.

TW15 Providing oral or written feedback to students on their work

The teacher is commenting on students' written work or oral responses or their work in class. In these instances, the teacher might praise or rebuke students for the quality of their work or they might provide specific comments on some aspect of the work. The work might include individual written products or it might include things that students produce orally in class, such as a comment to another student, a question, or an interpretation.

- The teacher might point out specific strong or missing elements of an answer or other student contribution or production.
- The teacher might pass back papers and make general comments about the strengths and weaknesses of students' work on the assignment being passed back.
- The teacher might make specific comments about the quality of a student's oral contribution in class.
- The teacher might talk with an individual student or a group about the aspects of their work that has shown progress or that needs attention.

Do not use this tag every time that a teacher says, "Good job," or "Nice," or "That answer is correct." Do not use this tag unless there is a specific comment being made on some aspect of students' oral or written work. Do not use this tag for comments about a student's personality or something similarly general; the focus of the feedback must be on academic work.

TW16 Using technology, e.g., SmartBoards, calculators, etc.

The teacher is using technology to support students' learning or to represent, explain, model, or record academic work. This includes overhead, document, or computer projectors, slides, web-based investigations, or computational or graphing applications.

- The teacher or students might be using specific technology in the context of an assignment.
- The teacher might use technology to focus on a specific aspect of a task (e.g., using a document projector to have students show their solutions or writing to the rest of the class).

Do not use this tag for the use of the chalkboard or whiteboard or for use of chart paper.

TW17e Giving directions

The teacher explains and/or gives the steps for an activity. The teacher might be addressing an individual, a small group, or the entire class, but the entire focus of the teacher's talk is to explain to students what to do. Even brief directions might receive this tag, but they should include more elaboration than a simple directive such as "take out your books."

- The teacher might explain the next steps for an activity.
- The teacher might provide details about what to do to a single student or small group.
- The teacher might instruct students to look on their own for examples of figurative language in a text.
- The teacher might say, "Turn to your shoulder partner and discuss what you think the author's purpose is in this essay."
- The teacher might review directions that he or she has already given.

Does not include instruction in academic content. For example, it does not include an explanation of how to write a five-paragraph essay. Do not use this tag for simple routine directives (e.g. "Take out your books," or "Turn to page 5"), usually expressed in single sentences, or when a teacher is simply reading directions out of a book or from a worksheet.

TW17m Giving directions

The teacher explains and/or gives the steps for an activity. The teacher might be addressing an individual, a small group, or the entire class, but the entire focus of the teacher's talk is to explain to students what to do. Even brief directions might receive this tag, but they should include more elaboration than a simple directive such as "Take out your books."

- The teacher might explain the next steps for an activity.
- The teacher might provide details about what to do to a single student or small group.
- The teacher might tell students to work independently on a mathematics problem and remind them to record all of their thinking.
- The teacher might tell students to listen carefully to other students' ideas during a discussion and to be prepared to be able to explain what another student is thinking.
- The teacher might tell students to get out specific tools. For example, "I want you to get out the following Cuisenaire rods: 6 white rods and 6 red rods."
- The teacher might tell students to discuss their solutions to a mathematics problem with a partner or small group.
- The teacher might review directions that he or she has already given.

Does not include instruction in academic content. For example, it does not include an explanation of how to find the common denominator for a pair of fractions. Do not use this tag for simple routine directives (e.g. "Take out your books," or "Turn to page 5"), usually expressed in single sentences, or when a teacher is simply reading directions out of a book or from a worksheet.

TW18 Making a transition from one part of a lesson or activity to the next

The teacher is moving the class or a small group from one task or activity to another. This might include cleaning up, putting away materials, moving physically from one part of the room to another, turning in work, or preparing for a new activity.

- The teacher might ask students to put away their notebooks and prepare to work with their textbooks including getting their measuring toolkits.
- The teacher might complete a whole group activity and ask the students to return to their seats.
- The teacher might ask small groups to clean up their materials and prepare to share their work with the whole class.

Do not use this tag when the teachers continues a lesson with a different question or task unless the students make a significant transition in materials or physical arrangement.

TW19 Managing off-task behavior

The teacher is anticipating and seeking to avoid students doing things other than the task or activity at hand, or responds to students who are not engaged in that task or activity. This might include students who are engaged in the activity but who are also talking or doing things that diverge from what is expected at that moment.

- The teacher might comment on some specific off-task behavior.
- The teacher might comment on the appropriate on-task behavior of some students.
- The teacher might use physical proximity or sounds or gestures to manage students' attention and engagement (e.g., by moving to stand near a student to keep the student engaged).
- The teacher might remove a student from an activity, or stop an activity or a task to deal with off-task behavior.

This tag does not apply to teachers seeming to ignore off-task behavior as a strategy for managing such behavior.

TW20 Opening the class

The teacher is beginning class before beginning formal instruction. This might include working on a short warm up task (e.g., a “do-now” or “sponge”), or other brief discussion, overview of the day or the period, or routine activity before the lesson.

- The teacher might talk with the class about what they are going to work on that day.
- The teacher might tell the class to begin a warm-up or similar problem or task.
- The students might work on a “do-now” or similar activity that the teacher has posted.
- The teacher might welcome the class back from a weekend or break and comment on the day or period ahead.

This tag does not apply to instances in which the teacher immediately begins the class (including reviewing homework) or instruction. Do not simply use this tag for the first few minutes of any class period.

TW21 Closing the class

The teacher is concluding or wrapping up a class. This might include a summary, tying up what has been worked on, making a connection to the next class, or commenting on some aspect of the work that is ending.

- The teacher might summarize what the class has accomplished, or might ask students to do so.
- The teacher might comment on what will happen tomorrow, showing the connection to or shift from the present day's work.
- The teacher might make comments about what the students will do before they come back to class tomorrow (specific assignment, or encouragement to do, attend to, or find something).
- The teacher might ask students to comment on what they learned today.

This tag does not apply to instances in which the teacher simply says goodbye or otherwise abruptly ends class, or when students get up and leave because the bell has rung, without any formal conclusion to class.





English Language Arts

MET Extension **Video Tags**

English Language Arts Tag Glossary

Item ID#	English Language Arts (ELA) Tags Item Short Description
R.CCR.1	Reading – read closely to determine key ideas and details; cite specific textual evidence to support conclusions drawn from a text
R.CCR.2	Reading – determine central ideas or themes and summarize key supporting details
R.CCR.3	Reading – analyze how and why individuals, events, and ideas develop in a text
R.CCR.4	Reading – interpret words and phrases, including connotative or figurative meanings, and analyze word choice
R.CCR.5	Reading – analyze the structure of a text
R.CCR.6	Reading – assess point of view or purpose
R.CCR.7	Reading – integrate and evaluate content
R.CCR.8	Reading – delineate and evaluate the argument in a text
R.CCR.9	Reading – analyze how different texts address similar themes or topics
RF.CCR.1	Foundational skills in reading – print concepts
RF.CCR.2	Foundational skills in reading – phonological awareness
RF.CCR.3	Foundational skills in reading – phonics and word recognition
RF.CCR.4	Foundational skills in reading – fluency
RL.CCR	Reading – literature
RI.CCR	Reading – informational text
SL.CCR.1	Speaking and listening – prepare for and participate in conversation and collaboration
SL.CCR.2	Speaking and listening – integrate and evaluate information presented in diverse formats, including visually, quantitatively, and orally
SL.CCR.3	Speaking and listening – evaluate a speaker’s point of view
SL.CCR.4	Speaking and listening – present information appropriately for listeners
SL.CCR.5	Speaking and listening – make strategic use of digital media and visual displays of data in presentations

ELA Tag Glossary **Continued**

Item ID#	English Language Arts (ELA) Tags Item Short Description
SL.CCR.6	Speaking and listening – adapt speech to task and audience, demonstrating command of formal English when appropriate
L.CCR.1	Language – conventions of standard English grammar and usage in writing and speaking
L.CCR.2	Language – demonstrate conventions of standard English capitalization, punctuation, and spelling in writing
L.CCR.3	Language – apply knowledge of language to understand how language functions, to make effective choices for meaning and style, and to comprehend more fully
L.CCR.4	Language – determine or clarify the meaning of unknown words and phrases
L.CCR.5	Language – demonstrate understanding of figurative language, word relationships, and nuance in word meanings
L.CCR.6	Language – acquire and use a range of academic and domain-specific words sufficiently for work at the college level
W.CCR.1	Writing – write arguments to support claims
W.CCR.2	Writing – write informative/explanatory texts
W.CCR.3	Writing – write narratives
W.CCR.4	Writing – produce clear and coherent writing appropriate to task, purpose, and audience
W.CCR.5	Writing – develop and strengthen writing through planning, revising, editing, rewriting
W.CCR.6	Writing – use technology to produce and publish writing
W.CCR.7	Writing – conduct research projects
W.CCR.8	Writing – gather information from print and digital sources, assess it, and use it without plagiarizing
W.CCR.9	Writing – draw evidence from texts to support analysis, reflection, and research

R.CCR.1 Reading - read closely to determine key ideas and details; cite specific textual evidence to support conclusions drawn from a text

Teaching is focused on developing students' ability to read literary or informational texts closely, in order to identify key ideas and details. At both the elementary and secondary grade levels, this includes learning to cite specific textual evidence when writing or speaking to support specific conclusions drawn from or arguments made about the text.

This tag includes analyzing film as a "text."

- Students discuss a text or film that they have just read with reference to key ideas and details in it.
- Given a graphic organizer intended to help them notice and record key details, students read a text or watch a film.
- After hearing or seeing a prompt or question about a text or film from a teacher, students read or watch a film or text in order to respond to the prompt or question.
- The teacher and students ask and answer questions about the following:
 - key details in a text
 - who, what, when, where, how, and why, in relation to the text
- The teacher and students refer to the text as the basis of an answer.
 - when explaining what the text says explicitly
 - when making inferences

Does not include simply reading or watching a film.

R.CCR.2 Reading - determine central ideas or themes and summarize key supporting details

Teaching is focused on developing students' ability to determine a theme of a story, drama, or poem from details in the text or on their ability to summarize a text. Note that this tag often occurs in conjunction with reading - read closely to determine key ideas and details since it is necessary to determine key ideas and details before determining central themes or summarizing. At both grade levels, this may include work to determine how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic.

At the secondary level, it also includes work on analyzing the development of a theme or central idea of a text over the course of the text, including its relationship to the characters, setting, and plot.

- The teacher and students discuss main ideas or "universal truths" in a text.
- The teacher and students work on summarizing something that they have read.
- Students retell familiar stories and demonstrate understanding of their central message or lesson.
- Students recount stories from diverse cultures, including fables and folktales, and determine their central message, lesson, or moral.
- The teacher or students determine the theme of a story, drama, or poem from details in the text and summarize the text.
- The teacher or students determine the theme of a text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic.
- The teacher or students analyze the development of a theme or central idea of a text over the course of the text, including its relationship to the characters, setting, and plot.

Does not include simply reading a text or watching a film - students must be working on determining central ideas or summarizing.

R.CCR.3 Reading – analyze how and why individuals, events, and ideas develop in a text

The teacher and/or students are analyzing how and why individuals, events, and ideas develop and interact over the course of a text (including a film adaptation). This includes analyzing what is happening in a poem, story, or essay, or what the plot is. It could also include analyzing an essay line-by-line or paragraph-by-paragraph. This tag applies to both literature (including poetry) and informational text. It is similar to and may overlap with R.CCR.5 (analyze the structure of a text).

For literature:

At the elementary level, this includes describing how characters in a story respond to major events and challenges, describing characters or events in depth, or comparing and contrasting two or more characters, settings, or events in a story or drama.

At the secondary level, this might also include analyzing how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot) or analyzing how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.

For informational text:

At the elementary level, this includes explaining events, procedures, ideas, and concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

At the secondary level, it includes analyzing how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories) and/or analyzing how the author unfolds an analysis or series of ideas or events, including the order in which points are made, how they are introduced and developed, and the connections that are drawn between them.

- Discussing what happens in each stanza of a poem.
- Reading a story out loud and discussing what is happening on each page.
- Identifying characters, settings, and major events in a story.
- Identifying the climax in a story or novel, and how the action leads up to it.
- Describing characters, settings, and major events in a story, using key details.
- Describing how characters in a story respond to major events and challenges.
- Describing characters in a story (e.g., their traits, motivations, or feelings) and explaining how their actions contribute to the sequence of events.
- Describing in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).
- Comparing and contrasting characters.
- Analyzing how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).
- Describing the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
- Explaining events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why.

Does not include asking and answering basic, factual questions about a text, including, for example, the names of characters or what the setting is.

R.CCR.4 Reading – interpret words and phrases, including connotative or figurative meanings, and analyze word choice

The teacher and students are interpreting words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyzing how specific word choices shape meaning or tone.

At the elementary level, this includes identifying words that allude to significant characters in mythology, determining the meaning of figurative language such as metaphors and similes.

At the secondary level, this includes analyzing the impact of word choice on meaning and tone, including analogies or allusions to other texts; and analyzing the impact of rhymes and other repetitions of sound on a specific verse or stanza.

- Determining the meaning of words and phrases as they are used in a text, including the following:
 - distinguishing literal from non-literal language
 - identifying those that allude to significant characters found in mythology (e.g., Herculean)
 - identifying metaphors and similes
- Asking and answering questions about unknown words in a text.
- Asking and answering questions to help determine or clarify the meaning of words and phrases in a text.
- Determining the meaning of general academic and domain-specific words and phrases in a text.
- Analyzing the impact of word choice on meaning and tone, including analogies or allusions to other texts.
- Analyzing the impact of rhymes and other repetitions of sound on a specific verse or stanza.

Does not include simply “sounding out” words or merely reading text. Does not include the teacher simply telling the students the definitions of new words.

R.CCR.5 Reading – analyze the structure of a text

Students and teachers analyze the structure of texts (including videos or film adaptations), including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and to the whole. They might also discuss specific text features, such as the title, stanzas of a poem, sections of an essay, or chapters of a book, and use them to analyze how the author develops the action or ideas in the text. This tag applies to both literature and informational text. It is similar to and may overlap with R.CCR.3 (analyze how and why individuals, events, and ideas develop in a text).

R.CCR.5 Reading – analyze the structure of a text **continued**

For literature:

At the elementary level, this includes explaining major differences between poems, drama, and prose, and referring to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text; and describing how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.

At the secondary level, it includes analyzing how a particular sentence, chapter, scene, or stanza, fits into the overall structure of a text and contributes to the development of the theme, setting, or plot; analyzing how a drama’s or poem’s form or structure (e.g., soliloquy, sonnet) contributes to its meaning; and comparing and contrasting the structure of two or more texts. Also, at the secondary level it includes analyzing how an author’s choices concerning how to structure a text, order events within it, or manipulate time create effects such as mystery, tension, and surprise; and analyzing how an author’s choices about how to structure a text contribute to its overall structure, meaning, and aesthetic impact.

For informational text:

At the elementary level, this includes knowing and using text features such as headings, tables of contents, glossaries, electronic menus and icons, captions, and bold prints, as well as describing the chronology of a text or describing cause and effect or problem and solution in a text or part of a text, or in two or more texts.

At the secondary level, it includes analyzing how an author uses sentences, paragraphs, sections, and chapters to organize a piece of writing and develop main ideas.

- Distinguishing between fictional and non-fictional texts.
- Identifying specific features of a text, such as the title, stanzas, sections, or chapters.
- Recognizing common types of texts (e.g., storybooks, poems).
- Explaining major differences between books that tell stories and books that give information.
- Describing the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
- Analyzing how specific sentences, paragraphs, and larger portions of a text (e.g., a section, chapter, scene, or stanza) relate to each other and to the whole.
- Explaining major differences between poems, drama, and prose, and referring to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions).
- Describing how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
- Analyzing how a particular sentence, chapter, scene, or stanza, fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.
 - analyze how a drama’s or poem’s form or structure (e.g., soliloquy, sonnet) contributes to its meaning
 - compare and contrast the structure of two or more texts
- Analyzing how an author’s choices concerning how to structure a text, order events within it, or manipulate time create effects such as mystery, tension, and surprise.
- Analyzing how an author’s choices about how to structure a text contribute to its overall structure, meaning, and aesthetic impact.

Does not include merely reading text. Does not include character analysis.

Does not include analysis of an author’s grammatical choices.

R.CCR.6 Reading – assess point of view or purpose

The teacher or students assess how point of view or purpose shapes the content and style of a text.

At the elementary level, this includes comparing and contrasting point of view and describing how point of view influences how events are described.

At the secondary level, it includes analyzing how differences in the points of view of characters and the audience or reader create such effects as suspense or humor.

- The teacher reminds students to consider the author’s point of view or purpose.
- The teacher prompts the students to consider the tone of a text as a clue to author’s point of view.
- Students assess or compare and contrast the author’s point of view.

Does not include merely reading and discussing a text unless there is explicit discussion of point of view or purpose.

R.CCR.7 Reading - integrate and evaluate content

Identifies instances in which the teaching is focused on developing students’ ability to integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words. It includes work on making connections between the text of a story or drama and a visual or oral presentation of that text and analyzing how visual and multimedia elements contribute to the meaning, tone, or beauty of a text. In instances in which students are working with informational text rather than with literature, it includes work on using information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, etc.) and explaining how the information contributes to an understanding of the text.

- Elementary students use illustrations in a story to describe the characters, settings, and events.
- The students or teacher explain how a text’s illustrations contribute to what the words in a story convey (e.g., create mood, emphasize aspects of a character or setting).
- Teacher or students use illustrations and details in a text to describe key ideas.
- Students consult charts, graphs, web pages, diagrams, animations and explain how the information presented contributes to understanding of the text in which it appears.

Does not include analyzing only the words in a text.

R.CCR.8 Reading - delineate and evaluate the argument in a text

Identifies instances in which teaching is focused on helping students learn to delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence. This tag applies only to informational text – not to literature.

At the elementary level, it includes describing the reasons or evidence an author gives to support particular points in a text.

At the secondary level, it includes tracing, delineating, and evaluating the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient.

- The teacher prompts students to identify the reasons an author gives to support points in a text.
- Students describe how reasons support specific points in the text.
- Students identify the argument in a text.
- Students give their own opinion about the argument in a text.
- Students assess whether the author’s argument in a text is sound and whether the evidence offered is sufficient.

Does not apply to fictional texts or to poetry.

R.CCR.9 Reading - analyze how different texts address similar themes or topics

Identifies instances in which students are working on analyzing how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. It includes instances in which students are working on comparing or contrasting the treatment of similar themes and topics and patterns of events in stories, myths, and traditional literature from different cultures and comparing and contrasting stories in the same genre on their approaches to similar themes and topics.

- Teachers prompt students to compare and contrast the adventures and experiences of characters in stories.
- Students compare and contrast two or more versions of the same story (e.g., Cinderella stories).
- Students compare and contrast the treatment of similar themes and topics in literature from different cultures.
- Students compare and contrast the most important points presented by two texts on the same topic.
- Students compare and contrast one author’s presentation of event with that of another (e.g., a memoir written by and a biography on the same person).

Does not include analyzing characters or theme in a single text.

RF.CCR.1 Foundational skills in reading – print concepts

Identifies instances in which teaching is focused on fostering students' understanding and working knowledge of concepts of print, including following words from left to right, top to bottom, and page to page; recognizing that spoken words are represented in written language by specific sequences of letters, understanding that words are separated by spaces in print, and recognizing and naming all upper- and lowercase letters of the alphabet. It also includes demonstrating understanding of the organization and basic features of print.

RF.CCR.2 Foundational skills in reading – phonological awareness

Identifies instances in which instruction is focused on developing students' ability to understand spoken words, syllables, and sounds, including recognizing and producing rhyming words, and counting, pronouncing, and blending syllables in spoken words. It also includes distinguishing long from short vowel sounds; isolating and pronouncing initial, medial vowel, and final sounds in spoken single-syllable words; and segmenting spoken single-syllable words into their complete sequence of individual sounds.

RF.CCR.3 Foundational skills in reading – phonics and word recognition

Identifies instances in which instruction is focused on developing students' knowledge of and ability to apply grade-level phonics and word analysis skills in decoding words. This includes identifying and knowing the meaning of the most common prefixes and derivational suffixes, decoding words with common Latin suffixes, decoding multi-syllable words, and reading accurately unfamiliar multisyllabic words in context and out of context.

RF.CCR.4 Foundational skills in reading - fluency

Identifies instances in which instruction is focused on developing students' ability to read with sufficient accuracy and fluency to support comprehension. This includes reading on-level text with purpose and understanding; read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings; and use context to confirm or self-correct word recognition and understanding, rereading as necessary.

RL.CCR Reading – literature

Students are working on reading fictional texts. This includes short stories, novels, poetry, drama, etc. It also includes film adaptations of fictional texts. Clips that receive this tag may include the teacher reading literature out loud, students reading it either out loud or silently, or any other form of instruction where the topic is fictional texts. In other words, the teacher and the students do not actually need to be reading from a fictional text for a clip to receive this tag (although they might be) – the teaching just needs to be related to the reading of fictional texts. Teaching could be focused on helping students understand the idea of plot, for example, or of structure, or any other element of a fictional text.

- Students are reading or studying strategies for reading, fictional texts, including the following:
 - short stories
 - novels
 - poetry
 - drama
 - historical fiction
 - film adaptations of fictional text
- Students or the teacher are reading a fictional text out loud or watching a film adaptation.
- Students are discussing a fictional text or film adaptation.
- The teacher is talking about a fictional text or film adaptation or about how to read or analyze a fictional text.

Does not include work on non-fictional texts, i.e., newspapers, articles, science textbooks, essays, memoirs, etc.

RI.CCR Reading – informational text

Students are working on reading informational texts, i.e., non-fiction texts. This includes essays, newspaper and journal articles, textbooks, etc. It also includes informational video or film, including television news, documentaries, or science- or social studies-related films. Clips that receive this tag may include the teacher reading an informational text out loud, students reading it either out loud or silently, OR any other form of instruction where the topic is informational texts. In other words, the teacher and the students do not actually need to be reading from an informational text for a clip to receive this tag (although they might be) – instruction just needs to be related to the reading of informational texts.

- Students are reading or learning strategies for reading non-fiction texts, including but not limited to the following:
 - essays
 - memoirs
 - autobiographies
 - newspapers
 - science or social studies textbooks
 - journal articles
 - informational video or film
- Students or the teacher are reading an informational text out loud or watching an informational film.
- Students are discussing an informational text or film/video.
- The teacher is talking about an informational text, video, or film or about how to read or analyze an informational text.

Does not include work on fictional texts, i.e., novels, short stories, poetry, drama. Does not include historical fiction.

SL.CCR.1 Speaking and listening - prepare for and participate in conversation and collaboration

Identifies instances in which teaching is focused on developing students' ability to prepare for and participate effectively in a range of conversations and collaborations with diverse partners (e.g., one-on-one, in groups, and teacher-led), building on others' ideas and expressing their own clearly and persuasively. At all grade levels, this includes learning to come to discussions prepared, to follow rules and norms for discussion, to pose and respond to specific questions, and to review the ideas expressed and express one's own ideas in response.

- Students are participating in conversation or collaboration, in pairs, small groups, or with the whole class.
- The teacher urges or reminds students to follow agreed-upon rules for discussions (e.g., listen to others with care, speaking one at a time, building on others' comments, asking questions to clear up confusion).
- The teacher reminds students to come to class prepared for discussion, having read or studied required material.
- The teacher urges students to draw on prior preparation to contribute to class discussion.

SL.CCR.2 Speaking and listening – integrate and evaluate information presented in diverse formats, including visually, quantitatively, and orally

Identifies instances in which teaching is focused on developing students' ability to integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally. At all grade levels, this includes learning to determine the main ideas and supporting details of a text read out or of other information presented in diverse formats, to paraphrase it, and to summarize it.

At the secondary level, it also includes learning to interpret and analyze this information and to evaluate the motives (e.g., social, commercial, political) behind its presentation.

For a video to receive this tag, students must be actively taking in information presented orally or in another format and trying to understand or synthesize it. The focus of a lesson or part of a lesson must be very deliberately on helping students learn to understand and use information that is deliberately presented in different formats.

- The teacher and/or students ask and answer questions about key details in a text that has been read aloud or about information presented orally or through other media.
- Students paraphrase or summarize parts of a text that was read aloud or information presented through a PowerPoint presentation or other format.
- Students analyze the main ideas and supporting details presented in oral, graphical, or quantitative formats (i.e., an oral presentation or speech, a PowerPoint presentation, a presentation with charts and graphs).

Does not refer to analysis of a written text that students have read, unless that analysis also includes information presented in an oral presentation, PowerPoint, slideshow, etc. Does not include moments in which the teacher draws an ad hoc diagram or picture on the board to assist with an explanation.

SL.CCR.3 Speaking and listening – evaluate a speaker’s point of view

Identifies instances in which teaching is focused on developing students’ ability to evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric.

At the elementary level, this includes identifying the reasons and evidence a speaker provides to support particular points, summarizing the points a speaker makes, and explaining how each claim is supported by reasons and evidence.

At the secondary level, it includes delineating a speaker’s argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.

- Students listen to a speaker and then ask and answer questions about what he or she is saying.
- Students summarize the key points a speaker has made and analyze the speaker’s claims.

Does not include merely discussing a text or speech without explicit attention to point of view, reasoning, and use of evidence and rhetoric.

SL.CCR.4 Speaking and listening – present information appropriately for listeners

Identifies instances in which teaching is focused on developing students’ ability to present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

At the elementary level, this includes reporting on a topic or text, telling a story, or recounting an experience in an organized manner, as well as speaking clearly at an understandable pace.

At the secondary level, it includes presenting claims and findings, emphasizing salient points in a focused, coherent manner, and using appropriate eye contact, adequate volume, and clear pronunciation.

- Students give an oral book report.
- Students tell a story or recount an experience orally, providing details and expressing ideas and feelings clearly.
- Students given an oral presentation.

Does not apply to lessons on writing; the focus here is on the oral presentation of information.

SL.CCR.5 Speaking and listening – make strategic use of digital media and visual displays of data in presentations

Identifies instances in which teaching is focused on developing students' ability to make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

At the elementary level, this includes adding drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings, and to create audio recordings of stories or poems.

At the secondary level, it includes adding multimedia components and visual displays to presentations to clarify claims and findings, emphasize salient points, and add interest.

This tag only applies to the use of digital media and visual displays in presentations.

- Students add illustrations or other visual displays to presentations.
- Student add graphics or sound to visual displays in presentations (i.e., to a PowerPoint).

Does not apply to writing (e.g., writing stories); the focus here is on presentations.

SL.CCR.6 Speaking and listening – adapt speech to task and audience, demonstrating command of formal English when appropriate

Identifies instances in which instruction is focused on developing students' ability to adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate. At all grade levels, this includes helping students learn to adapt their speech to a variety of contexts and tasks (e.g., using formal English in presentations and informal discourse in small-group discussions).

- The teacher encourages students to use formal English or correct grammatical errors in speech.
- The teacher and students discuss appropriate contexts for using formal and informal English.

Does not apply to writing or include instances in which the teacher provides feedback to students on their use of language in writing.

L.CCR.1 Language – conventions of standard English grammar and usage in writing and speaking

Teaching is focused on developing students' command of the conventions of standard English grammar and usage when writing or speaking.

At the elementary level, this includes work on relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why); form and use of the progressive (e.g., I was walking, I am walking, I will be walking), modal auxiliaries (e.g., can, may, must); ordering adjectives within sentences; form and use of prepositional phrases; producing complete sentences; and correctly using frequently confused words (e.g., to, too, two). It also includes work on using the perfect tense correctly, using verb tenses accurately, and using correlative conjunctions (e.g., either/or, neither/nor).

At the secondary level, it includes work on explaining the function of phrases and clauses, choosing among simple, compound, complex, and compound-complex sentences to signal different relationships among ideas, to place phrases and clauses within a sentence, to form and use verbs in the active and passive voice, and to recognize and correct inappropriate shifts in verb voice and mood. It also includes work on the use of parallel structure, using various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses, and resolving issues of complex or contested usage by consulting published references.

Teacher and/or students are working on any of the following conventions of standard English:

- pronouns
- adverbs
- use of the possessive
- use of modal auxiliaries
- use of prepositional phrases
- producing complete sentences
- using frequently confused words correctly (e.g., to, too, two)
- verb tense
- phrases and clauses
- choosing among simple, compound, complex, and compound-complex sentences
- active v. passive verbs
- parallel structure
- use of various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute).

Does not include work on capitalization, punctuation, essay structure, point of view, etc. - the focus of this tag is grammar.

L.CCR.2 Language – demonstrate conventions of standard English capitalization, punctuation, and spelling in writing

Teaching is focused on developing students' command of the conventions of standard English capitalization, punctuation, spelling, and other mechanics when writing.

At the elementary level, this includes work on capitalizing holidays, product names, and geographic names, using commas in greetings and closings of letters and in dates, using apostrophes correctly, and consulting reference materials when necessary.

At the secondary level, it includes work on using semicolons, colons, and hyphens correctly.

- The teacher tells the class that they will be working on “mechanics.”
- The teacher reminds the students to use the following correctly:
 - capitalization
 - punctuation
 - spelling

Does not include work on grammatical conventions such as using phrases and verb tenses correctly, using parallel structure correctly, etc.

L.CCR.3 Language – apply knowledge of language to understand how language functions, to make effective choices for meaning and style, and to comprehend more fully

Teaching is focused on the use of language and grammar in writing to convey meaning and develop style. It might focus on either students' use of language in their own writing or on analyzing how another author uses language for particular effect.

At the elementary level, this includes choosing words and phrases to convey ideas precisely; choosing punctuation for effect; differentiating between contexts that call for formal English and situations where informal discourse is appropriate; expanding, combining, and reducing sentences for meaning, interest, and style; and comparing and contrasting the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.

At the secondary level, it includes work on choosing language that expresses ideas precisely and concisely, using verbs in the active and passive voice to achieve particular effects, writing and editing work so that it conforms to the guidelines in a style manual (e.g., MLA Handbook), varying syntax for effect, and consulting references for guidance as needed.

- The teacher helps or reminds students to do any of the following:
 - Choose particular words and phrases in order to achieve a specific effect in their own writing
 - Choose punctuation for effect
 - Choose formal or informal English as appropriate.
- Students discuss why they would choose to make a particular capitalization or punctuation decision.
- Students analyze how an author uses specific words, phrases, rhyme, meter, or grammar in order to achieve a particular effect or convey meaning.
- Students analyze why a poet chooses specific adjectives in a poem.
- Students analyze why an essay writer uses many semi-colons in a particular piece of writing.

Does not include procedural discussion of punctuation, grammar or word choice - in other words, discussion of what is technically correct. Instead, it must include discussion of why an author made particular choices about grammar or word choices, with clear attention to the impact on the reader's experience of the text.

Does not include procedural discussion of active v. passive voice, without discussion of why an author might choose active versus passive voice.

L.CCR.4 Language – determine or clarify the meaning of unknown words and phrases

Teaching is focused on developing students' ability to determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate. At all grade levels, this includes work on using context as a clue to the meaning of words and phrases, using common, Greek and Latin affixes and roots as clues to the meaning of words, and consulting reference materials (e.g., dictionaries, glossaries, thesauruses) to find the pronunciation and determine or clarify the meaning of words and phrases.

The teacher helps students with any of the following, or students work on any of the following on their own:

- Clarifying unknown words and phrases.
- Using context clues.
- Analyzing word parts.
- Consulting reference materials (dictionaries, glossaries, thesauruses) to determine word meaning and pronunciation.
- Using Greek and Latin affixes and roots as clues to word meaning.

Does not include merely reading words or a text. Does not include the teacher defining words for students without any effort to teach them how to determine meaning on their own.

L.CCR.5 Language – demonstrate understanding of figurative language, word relationships, and nuance in word meanings

Teaching is focused on developing students' ability to understand figurative language, word relationships, and nuances in word meanings.

At the elementary level, this includes work on the meaning of simple similes and metaphors, recognizing and explaining the meaning of common idioms, adages, and proverbs, understanding words by relating them to their opposites, and using the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

At the secondary level, it includes work on interpreting figures of speech; using the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words; distinguishing among the connotations of words with similar denotations; and analyzing nuance in the meaning of words with similar denotations.

The teacher helps students with any of the following, or students work on any of the following on their own:

- Understanding figurative language, word relationships, and nuances in word meanings.
- Analyzing similes and metaphors.
- Recognizing and explaining idioms, adages, and proverbs.
- Relating words to their opposites.
- Using synonyms, antonyms, homographs to understand words.
- Interpreting figures of speech.
- Distinguishing among connotations of words with similar denotations.

Does not include simply “sounding out” or defining words.

L.CCR.6 Language – acquire and use a range of academic and domain-specific words sufficiently for work at the college level

Teaching is focused on developing students' ability to acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; and to demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

- The teacher presents new vocabulary words.
- Students look up new words in a dictionary or other reference book.
- The teacher helps a student understand the meaning of a word.

Does not include “sounding out” words or merely reading text.

W.CCR.1 Writing – write arguments to support claims

The teacher helps students learn to write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

This includes teaching students to introduce claims and organize the reasons and evidence clearly; to support claims with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text; to use words, phrases, and clauses to clarify the relationships among claims(s) and reasons; to establish and maintain a formal style; and to provide a concluding statement or section that follows from the argument presented.

At the secondary level, it includes writing arguments to support claims with clear reasons and relevant and sufficient evidence.

- The teacher shows students a sample text and discusses its features with the class.
- Students work on identifying their own arguments and writing about them in an essay.
- The teacher reminds students to do any of the following in their own writing:
 - Introducing a topic or text clearly
 - Stating an opinion
 - Creating an organizational structure in which ideas are logically grouped
 - Providing logically ordered reasons that are supported by facts and details
 - Linking opinions and reasons using words and phrases (e.g., for instance, in order to, in addition, consequently)
 - Providing a concluding statement or section

Does not include discussion of the argument in a text that students have read unless it is clearly in preparation for students' own writing.

Does not include work on fictional writing.

W.CCR.2 Writing – write informative/explanatory texts

The teacher helps students learn to write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.

This includes introducing and developing a topic, using precise language and domain-specific vocabulary, and providing a concluding statement or section related to the information presented.

At the secondary level, it also includes establishing and maintaining a formal style and objective tone while attending to the norms and conventions of the discipline in which the student is writing.

- Students write informative/explanatory texts to examine a topic and convey ideas and information clearly. This may include any of the following:
 - Introducing a topic clearly, providing a general observation and focus, and grouping related information logically
 - Developing the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic
 - Linking ideas within and across categories of information using words, phrases, and clauses
 - Providing a concluding statement or section related to the information or explanation presented
 - Establishing and maintaining a formal style and objective tone while attending to the norms and conventions of the discipline in which the student is writing

Does not include learning to write fictional texts, such as a short story or poem.

W.CCR.3 Writing – write narratives

The teacher helps students learn to write narratives (i.e., stories) to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences. This includes orienting the reader by establishing a situation and introducing a narrator and/or characters, using dialogue and description, using transitional words and phrases, using concrete words and phrases and sensory details, and providing a conclusion.

- Students write narratives (i.e., stories) to develop real or imagined experiences or events, including doing any of the following:
 - Orienting the reader by establishing a situation and introducing a narrator and/or characters; organizing an event sequence that unfolds naturally
 - Using dialogue and description
 - Using transitional words and phrases
 - Using concrete words and phrases and sensory details
 - Providing a conclusion

Does not include writing essays or other informational or argumentative texts.

W.CCR.4 Writing – produce clear and coherent writing appropriate to task, purpose, and audience

The teacher helps students learn to produce clear and coherent writing in which the development, organization, and style are appropriate to the task, purpose, and audience. This includes writing with attention to the following:

- Introducing a topic clearly and creating an organization structure in which related ideas are grouped to support the writer’s purpose.
- Developing the topic with facts, definitions, reasons, quotations, etc.
- Linking opinions with reasons or ideas with related information and phrases.
- Using precise language and domain-specific vocabulary.
- Providing a concluding statement or section related to the opinion or information presented.

This tag usually occurs in conjunction with other tags related to writing, since it is almost always a teacher’s goal during writing instruction to help students learn to produce clear and coherent writing. Students are working on any of the following:

- Introducing a topic or text clearly.
- Stating an opinion.
- Creating an organizational structure in which ideas are logically grouped.
- Providing logically ordered reasons that are supported by facts and details.
- Linking opinions and reasons using words and phrases (e.g., for instance, in order to, in addition, consequently).
- Developing the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- Linking ideas within and across categories of information using words, phrases, and clauses.
- Establishing and maintaining a formal style and objective tone while attending to the norms and conventions of the discipline in which the student is writing.
- Using dialogue and description.
- Using transitional words and phrases.
- Using concrete words and phrases and sensory details.
- Providing a conclusion.

Does not include analyzing author’s purpose in relation to a text the students are reading or have read unless it is explicitly in preparation for students’ own writing.

W.CCR.5 Writing – develop and strengthen writing through planning, revising, editing, rewriting

The teacher helps students learn to use the writing process, including to develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. At all grade levels, this may include working with peers to edit and revise papers. This tag usually occurs in conjunction with other tags related to writing.

Students engage in any of the following activities, designed to develop and strengthen their writing:

- brainstorming
- peer editing
- planning
- revising
- editing
- rewriting
- trying a new approach

Does not include teaching of basic writing techniques (e.g., structure, format, grammar, word choice, point of view).

W.CCR.6 Writing – use technology to produce and publish writing

The teacher helps students learn to use technology, including the internet, to produce and publish writing and to interact and collaborate with others.

- Students use a variety of digital tools to produce and publish writing, including the internet.
- Students use the internet to interact and collaborate with others.
- Students demonstrate command of keyboarding skills.

Does not include doing research on the internet or using the internet for purposes other than producing and publishing writing.

W.CCR.7 Writing – conduct research projects

The teacher helps students learn to conduct short as well as more sustained research projects based on focused questions and demonstrating understanding of the subject under investigation.

- Students review or discuss the steps of conducting a research project.
- Students discuss the questions they are pursuing in a research project.
- Students give oral presentations on a research project.
- Students conduct short as well as more sustained research projects, including the following:
 - Exploring a number of “how-to” books on a given topic and using them to write a sequence of instructions
 - Reading a number of books on a single topic to produce a report
 - Recording science observations
 - Writing research reports or papers

Does not include merely reading a textbook or other reference book in the course of regular classroom instruction; instead, the focus must be research.

W.CCR.8 Writing – gather information from print and digital sources, assess it, and use it without plagiarizing

The teacher tries to help students learn to gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism. At all grade levels, this includes recalling relevant information from experiences or gathering relevant information from print and digital sources; taking notes and categorizing information; summarizing and paraphrasing information; and providing a list of sources.

This tag might overlap and occur in conjunction with W.CCR.9 (writing- draw evidence from texts to support analysis, reflection, and research). The major difference between this tag and W.CCR.9 is that the emphasis in this tag is on using information from published sources without plagiarizing, while in W.CCR.9, the emphasis is on using information from a text (including a fictional or literary text) to support one's own understanding and to build an argument.

- Teacher prompts students to recall information from experiences or gather information from a published text to answer a question.
- Students recall relevant information from experiences or gather relevant information from print and digital sources.
- Students take notes from the internet or other reference sources and categorize information.
- Students provide a list of sources.

Does not include summarizing a fictional story.

W.CCR.9 Writing – draw evidence from texts to support analysis, reflection, and research

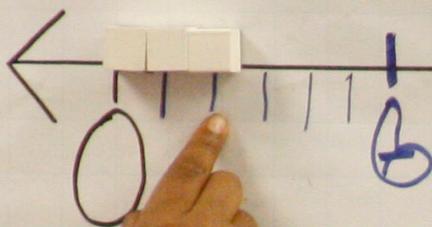
The teacher tries to help students learn to draw evidence from literary or informational texts to support analysis, reflection, and research. A lesson that does not actually involve writing may still receive this tag if the students are learning to draw evidence from a text.

This tag might overlap and occur in conjunction with W.CCR.8 (writing – gather information from print and digital sources, assess it, and use it without plagiarizing). The major difference between this tag and W.CCR.8 is that the emphasis in this tag is on using information from a text (including a fictional or literary text) to support one's own understanding and to build an argument, while in W.CCR.8, the emphasis is on using information from published sources without plagiarizing.

- Students discuss reasons to support their arguments about a text.
- Teacher shares a sample essay that includes evidence drawn from a text.
- Students draw evidence from literary or informational texts to support analysis, reflection and research. This may include any of the following, and more:
 - Describing characters, settings, or events in depth
 - Explaining how an author uses reasons and evidence to support particular points in a text
 - Comparing and contrasting two or more characters, settings, or events in a story or drama
 - Analyzing how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new

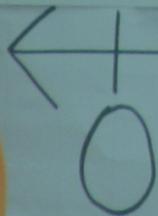
Does not include just reading a text.

1. Mark the length of 6 v

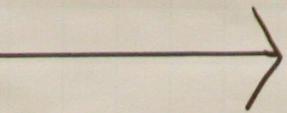


2. Mark the length of 6
rods using red rods.

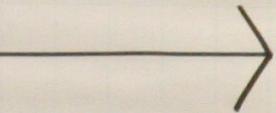
3. Mark the length of 6
rods using two different
color rods.



white rods.



white



white
nt



Mathematics

MET Extension **Video Tags**



Mathematics Tag Glossary

Item ID#	Mathematical Practices Tags Item Short Description
MP01a	Make sense of and interpret problems
MP01b	Persist in trying to solve difficult problems
MP02	Reason quantitatively and abstractly
MP03a	Construct mathematical arguments
MP03b	Critique mathematical arguments
MP04	Model with mathematics
MP05	Use appropriate tools strategically
MP06	Use language precisely
MP07	Look for and make use of structure

Item ID#	Mathematical Topics Tags Item Short Description
OA-SD-ADD	Single-digit addition and addition concepts
OA-SD-SUBT	Single-digit subtraction and subtraction concepts
OA-SD-MLTP	Single-digit multiplication and multiplication concepts
OA-SD-DIV	Single-digit division and division concepts
OA-WP-4OPS	Interpret, represent, and solve word problems using addition, subtraction, multiplication, and/or division
OA-PRPT-4	Properties of operations
OA-WR-NUMEX	Write and interpret basic numerical expressions and equations
OA-ANYL-PAT	Generate and analyze patterns and relationships

Mathematical Topic Tags Glossary **Continued**

Item ID#	Mathematical Topics Tags Item Short Description
NBT-PV	Place value concepts and numeration
NBT-MD-ADD	Multi-digit operations - addition
NBT-MD-SUBT	Multi-digit operations - subtraction
NBT-MD-MLTP	Multi-digit operations - multiplication
NBT-MD-DIV	Multi-digit operations - division
NBT-DEC-OPS	Operations with decimals
NF-FRCT-CNCPT	Fraction concepts
NF-FRCT-4OPS	Operations with fractions
MD-TIME-MON	Working with time and money
MD-MEAS-ATTR	Measurable attributes
MD-CONV	Converting units of measurement
G-FIG	Geometric figures
G-AR-VOL	Area and volume
G-CNGR-SIM	Congruence and similarity
RP-RATIO	Ratios and proportional relationships
NS-NEG-RAT	The rational number system
EE-RAD-EXP	Radicals and exponents
EE-EXPR	Expressions
EE-EQ-INEQU	Equations and inequalities
EE-LIN-EQ	Linear equations
SP-STATS-ALL	Statistics
SP-PROB-ALL	Probability
F-FXNS	Functions

Mathematical Practices Tags

MP01a Make sense of and interpret problems

Students are asked to explain what a problem is asking or are themselves asking explicit questions about the meaning of a problem or its intended solution before or as they begin to work on it. This tag includes cases where students are evidently working to make sense of a problem or a task. Students might use objects, diagrams, or other representations in seeking to make sense of the question or its intended answer.

- The teacher might ask students what they know about the problem, or how it is like other work they have done.
- There might be comments about what would count as an answer to the problem.
- A student might explain what the question is asking.
- The teacher might offer a non solution and ask why that would not count as a solution.

This tag does not apply when students are discussing solutions to problems they have already worked on unless the discussion centers on alternative interpretations of the problem. Also this tag should not be used when students are starting to work but are not explicitly discussing the meaning of a problem or what it is asking.

MP01b Persist in trying to solve difficult problems

The teacher or students explicitly focus on specific skills and productive strategies that can help support work on a puzzling or difficult problem. Examples include explicit attention or instruction on:

- Formulating and attempting simpler versions of a problem.
- Experimenting with small examples.
- Considering how a problem is like another previously solved one.
- Making use of comparisons with other problems.
- Looking something up or searching on the internet.

This tag is not meant to describe students' attitudes or confidence, and is not about telling students to try harder or keep working. Although it might involve helping a student who is stuck or struggling, do not use this tag unless specific strategies are being taught or encouraged. This tag is also not used for topic-specific strategies (for example, steps to remember to take in computing a mean) or work on tasks that progress in complexity unless there is explicit attention to strategies useful when one is stuck on a difficult problem.

MP02 Reason quantitatively and abstractly

The teacher engages students in using quantitative or symbolic representations to reason about a problem or situation. This tag includes students decontextualizing situations in order to see the general mathematical issues at play; it might also include deliberate uses of context to reason about problems.

- Students might be working on representing a situation using numerical or algebraic notation.
- Students might be abstracting from a story or a situation and representing it in general form.
- The teacher might ask students to compare different possible expressions for a situation.

This tag does not apply to all reasoning that involves quantities. It also does not apply merely to calculating or using procedures. This tag is different from “model with mathematics” because this one focuses on abstracting and representing situations or problems using mathematical expressions.

MP03a Construct mathematical arguments

Students make and support mathematical claims or are being helped to learn to do so.

- Students might provide evidence for a solution.
- Students might make mathematical statements and explain logically what makes them true.
- The teacher might present a claim and ask students to determine and explain whether it is true.

This tag does not apply to students merely giving solutions and explaining their answers.

MP03b Critique mathematical arguments

Students respond to others’ arguments or to arguments they encounter in print, analyzing the claim and its bases, and critiquing some aspect of the chain of reasoning.

- The teacher might ask students to comment on the correctness or validity of one another’s claims and solutions. The students should be analyzing and explaining, not just stating whether they agree.
- Students might be comparing different claims or solutions and analyzing whether they are complete.
- A student might point out a missing or flawed element in an explanation or argument.

This tag does not apply to students disagreeing with or correcting other students’ answers or solutions; it also does not apply to a student giving an alternative explanation. It does not refer to a teacher critiquing or correcting a student’s explanation, unless the teacher is modeling how to critique an argument.

MP04 Model with mathematics

Students or the teacher might provide a representation of essential features of the context, using known mathematical tools (numbers and operations, geometric configurations, graphs, equations with variables, etc.), and so that the model can be mathematically analyzed, with results interpretable in the original context.

- Students might be making sense of a situation or problem and be trying to use mathematical ideas or resources to represent and make sense of the problem or situation.
- The teacher might show ways to use mathematical ideas and representations to interpret a problem situation or a proposed solution.
- Students might transform a story problem into a computation, or an equation or proportional relation to be solved, or a quantity to be maximized.

This tag does not apply to the simple use of concrete materials or diagrams to illustrate the meaning of a concept or a procedure (for example, using base ten blocks to show the meaning of multi-digit subtraction). Once a model is constructed, its analysis might involve “reasoning quantitatively and abstractly,” but this is different from constructing the model.

MP05 Use appropriate tools strategically

The teacher and students focus on using judgment about specific tools that would be strategic to use to work on particular problems.

- Tools might include physical implements (for example, rulers), concrete materials (for example, base ten blocks), or diagrams (for example, circle models or number lines for fractions).
- The teacher might ask students what sort of measuring tool would be appropriate.
- A student might explain why a specific diagram is useful in seeking a solution.

This tag does not apply to the mere use of tools without explicit attention to the purposeful choice of a particular tool. Paper, pencils, and simple use of writing surfaces (for example, whiteboards) are not considered tools.

MP06 Use language precisely

Students or the teacher exercise care with terms, symbols, and definitions or attention to the exact meaning of a term or symbol. This also includes cases in which the teacher is supporting care with language and defining terms.

- The teacher might explain or introduce a term and then after that students apply and use it correctly.
- The teacher or students might make an explicit clarification about the meaning of a particular term.
- The teacher or students might define a term, or request a definition.
- The teacher or students might explore precision in a definition or statement (for example, attention to the need for the word “exactly”).
- The teacher might decide to give a name to an idea that emerges from class discussion, but does not have a standard mathematical name.
- The teacher might make small explicit corrections to students’ use of mathematical language.

This tag does not apply to teachers using terms correctly without explicit comment or explanation about the terms. It also does not apply to students using a term correctly when there has been no explicit attention to the term in that lesson.

MP07 Look for and make use of structure

The teacher highlights or the students notice some abstract expression of a feature common to a family of mathematical situations, patterns or similarities across problems, or see a deeper mathematical idea that shapes the specific mathematics on which they are working. For this to be about mathematical structure, students should be noticing features of a mathematical idea or concept (representation, solution, procedure) that are fundamentally connected to another mathematical idea or concept, but that is not immediately obviously related.

- The teacher might ask students how two or more solutions are related, focusing students on a fundamental similarity among them.
- Students might discuss how a problem is similar to another one solved earlier.
- A student might observe something about a basic underlying concept that is significant across other mathematical ideas (for example, noticing that regrouping in multi-digit subtraction is similar to the renaming done in finding equivalent fractions).
- Students might notice something fundamental about a mathematical idea from looking at several examples (for example, that an odd number can always be fully divided into groups of two with one left over).
- The class might discuss how an algebraic or numerical expression is related to a diagram (i.e., how to see each aspect of an expression in a diagram or representation).

This tag does not apply to all work on pattern recognition. It also does not apply to all work on pattern identification or representation. This tag does not apply to all work on generalizing.

Mathematical Topics Tags

OA-SD-ADD Single-digit addition and addition concepts

The class is considering the meaning of addition, single-digit addition combinations, or practice and development of fluency. This tag is used when the work is primarily with numbers and does not include solving word problems involving addition.

- Understanding addition as putting together or adding to.
- Practicing fluently adding two single-digit numbers.

Does not include adding two single-digit numbers in the context of a multi-digit addition problem. Does not include solving word problems involving addition. Does not include addition problems involving negative integers, decimal numbers, or fractions.

OA-SD-SUBT Single-digit subtraction and subtraction concepts

The class is considering the meaning of subtraction, doing single-digit subtraction combinations (with initial numbers up to 20), or practicing and developing fluency. This tag is used when the work is primarily with numbers and does not include solving word problems involving subtraction.

- Understanding subtraction as taking apart or taking from.
- Practicing fluently subtracting with initial numbers up to 20.

Does not include subtracting two single-digit numbers in the context of a multi-digit subtraction problem. Does not include solving word problems involving subtraction. Does not include subtraction problems involving negative integers, decimal numbers, or fractions.

OA-SD-MLTP Single-digit multiplication and multiplication concepts

The class is considering the meaning of multiplication, doing single-digit multiplication combinations, or practicing and developing fluency. This tag is used when the work is primarily with numbers and does not include solving word problems involving multiplication.

- Multiplying two single-digit numbers.
- Using addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns.
- Interpreting the product of whole numbers (for example, interpret 5×7 as the total number in 5 groups of 7 objects each).
- Determining whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s.
- Writing an equation to express an even number as a sum of two equal addends.
- Finding factor pairs for a whole number in the range 1-100.
- Determining whether a given whole number in the range 1-100 is prime or composite.

Does not include multiplying two single-digit numbers in the context of a multi-digit multiplication problem. Does not include solving word problems involving multiplication. Does not include multiplication problems involving negative integers, decimal numbers, or fractions.

OA-SD-DIV Single-digit division and division concepts

The class is considering the meaning or concept of division, doing single-digit division combinations, or practicing and developing fluency. This tag is used when the work is primarily with numbers and does not include solving word problems involving division.

- Interpreting whole-number quotients of whole numbers (for example, interpreting $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. This might include describing a context in which a number of shares or a number of groups can be expressed as $56 \div 8$).
- Understanding division as an unknown-factor problem (for example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8).
- Finding all factor pairs for a whole number in the range 1-10.
- Practicing fluently dividing within 100, using strategies such as the relationship between multiplication and division or properties of operations.

Does not include division in cases where the dividend is greater than 100 and/or the divisor is greater than 10. Does not include solving word problems involving division. Does not include cases where the quotient is not a whole number or is greater than 10. Does not include division problems involving negative integers, decimal numbers, or fractions.

OA-WP-4OPS Interpret, represent, and solve word problems using addition subtraction, multiplication, and/or division

The class is considering word problems, problems involving contexts and stories, using one or more of the operations. This tag is used only in the case of operations within 100 and with whole numbers.

- Interpreting a story problem.
- Writing an expression to represent a story problem.
- Using addition, subtraction, multiplication or division to solve a story problem.

Does not include solving word problems involving numbers greater than 100. Does not include problems with negative numbers, decimals, or fractions.

OA-PRPT-4 Properties of operations

The class is explicitly considering properties of operations, such as commutativity, associativity, and distributivity, and relationships between operations including the order of operations.

- Naming and/or applying properties of operations as strategies to add and subtract. Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)
- Naming and/or applying properties of operations as strategies to multiply and divide. Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known (commutative property of multiplication). $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$ (associative property of multiplication). Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$ (distributive property).

Properties of Operations:

Associative property of addition

$$(a + b) + c = a + (b + c)$$

Commutative property of addition

$$a + b = b + a$$

Additive identity property of 0

$$a + 0 = 0 + a = a$$

Existence of additive inverses

For every a there exists $-a$ so that $a + (-a) = (-a) + a = 0$.

Associative property of multiplication

$$(a \times b) \times c = a \times (b \times c)$$

Commutative property of multiplication

$$a \times b = b \times a$$

Multiplicative identity property of 1

$$a \times 1 = 1 \times a = a$$

Existence of multiplicative inverses

For every $a \neq 0$ there exists $1/a$ so that $a \times 1/a = 1/a \times a = 1$.

Distributive property of multiplication over addition

$$a \times (b + c) = a \times b + a \times c$$

This does not include instances where the properties are being used (i.e. to simplify an algebraic expression) or named but not being discussed.

OA-WR-NUMEX Write and interpret basic numerical expressions and equations

The class is engaged in basic work on the use of the equals sign, use of parentheses, brackets and braces, and representing simple situations with expressions. This tag also includes beginning work with unknowns.

- Using the meaning of the equal sign to determine if equations involving addition, subtraction, multiplication, and division are true or false (for example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$).
- Determining the unknown whole number in an addition, subtraction, multiplication or division equation relating three whole numbers (for example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = ? \div 3$, $6 \div 6 = ?$).
- Using parentheses, brackets, or braces in numerical expressions.
- Evaluating numerical expressions with these parentheses, brackets, or braces.
- Writing simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them (for example, expressing the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$). Recognizing that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product).

OA-ANYL-PAT Generate and analyze patterns and relationships

The class is noticing, identifying, and generalizing numerical and geometric patterns.

- Identifying arithmetic patterns (including patterns in the addition table or multiplication table), and explaining them using properties of operations (for example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends).
- Generating a number or shape pattern that follows a given rule.
- Identifying apparent features of the pattern that were not explicit in the rule itself. (For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way).

NBT-PV Place value concepts and numeration

The class is explicitly considering place value concepts and numeration.

- Counting numbers, including skip counting (for example, counting by 5s).
- Reading and writing whole numbers and decimals.
- Representing multi-digit numbers and explaining place value numeration.
- Comparing two multi-digit numbers.
- Rounding multi-digit numbers including decimal numbers.
- Explaining the relationship between the digits in a multi-digit number.
- Mentally adding (or subtracting) 10 (or 100) from a given number.
- Explaining why strategies for adding and subtracting multi-digit numbers work, using place value and the properties of operations.

Does not include reading or writing numbers in the context of other mathematical work. Does not include work with place-value based algorithms (for example, adding two multi-digit numbers) unless the emphasis is on explaining why the algorithms work.

NBT-MD-ADD Multi-digit operations - addition

The class is considering the addition of a multi-digit whole number with a one-digit number or a whole number with multiple digits.

- Using standard algorithms or alternative algorithms to add multi-digit numbers.
- May or may not include a focus on the meaning of the procedure.

NBT-MD-SUBT Multi-digit operations - subtraction

The class is subtracting multi-digit whole numbers.

- Using standard algorithms or alternative algorithms to subtract multi-digit numbers.
- May or may not include a focus on the meaning of the procedure.

NBT-MD-MLTP Multi-digit operations – multiplication

The class is multiplying a multi-digit whole number by a one-digit whole number or a whole number with multiple digits.

- Using standard algorithms or alternative algorithms to multiply multi-digit numbers.
- May include a focus on the meaning of the procedure.
- May include use of a word problem context.

Does not include multiplication problems involving negative integers, decimal numbers, or fractions.

NBT-MD-DIV Multi-digit operations - division

The class is solving problems involving finding whole-number quotients of whole numbers with single-digit or multi-digit dividends and single-digit or multi-digit divisors.

- Finding whole-number quotients and remainders, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.
- Interpreting the meaning of the remainder in a multi-digit division problem.
- May or may not include a focus on the meaning of the procedure.

NBT-DEC-OPS Operations with decimals

The class is solving problems with decimals using any one of the four operations. This tag may or may not include a focus on the meaning of the procedure.

- Using standard algorithms or alternative algorithms to add decimal numbers.
- Using standard algorithms or alternative algorithms to subtract decimal numbers.
- Using standard algorithms or alternative algorithms to multiply decimal numbers.
- Using standard algorithms or alternative algorithms to divide decimal numbers.

NF-FRCT-CNCPT Fraction concepts

The class is considering basic ideas about the meaning of fractions, including representing and comparing fractions.

- Interpreting fraction notation (for example, the fraction $\frac{1}{b}$ is the quantity formed by 1 part when a whole is partitioned into b equal parts; $\frac{a}{b}$ is the quantity formed by a parts of size $\frac{1}{b}$).
- Representing fractions using a variety of representations including area models (for example, circular regions, rectangular regions), set models, and the number line.
- Generating and/or explaining equivalence of fractions (for example, same place on the number line).
- Representing whole numbers as fractions.
- Comparing fractions using a variety of strategies.
- Interpreting notation for improper fractions (for example, understand a fraction $\frac{a}{b}$ with $a > b$ as a sum of fractions $\frac{1}{b}$).
- Expressing a fraction as a decimal.
- Expressing a decimal as a fraction.
- Comparing decimal numbers (for example, 0.08 and 0.8).
- Converting between fractions, decimals, and percents.

Does include working on ratio and proportion.

NF-FRCT-4OPS Operations with fractions

The class is considering computations with fractions using the four operations.

- Adding fractions and mixed numbers.
- Subtracting fractions and mixed numbers.
- Multiplying a fraction by a whole number, fraction or a mixed number.
- Multiplying a whole number by a fraction or a mixed number.
- Setting up and solving word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers. May involve using visual fraction models or equations to represent the problem. (For example, interpret $\frac{3}{4}$ as the result of dividing 3 by 4, noting that $\frac{3}{4}$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $\frac{3}{4}$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?).
- Dividing fractions by whole numbers.
- Dividing whole numbers by fractions.
- Dividing fractions by fractions.

MD-TIME-MON Working with time and money

The class is considering time and/or money.

- Telling time from analog and digital clocks.
- Measuring time intervals.
- Adding and subtracting time intervals (for example, figuring out what time it was 5 hours ago, or determining what time it is in South Africa).
- Solving problems involving dollar bills, quarters, dimes, nickels, and pennies.
- Using \$ and ¢ symbols appropriately.

Does not include instances where time/money are contextual details to a problem but are not the object of study.

MD-MEAS-ATTR Measurable attributes

The class is estimating, measuring, calculating and/or comparing measurable attributes of objects. These measurable attributes include angle measure, length, area, mass, and volume. Students may be working with standard as well as non-standard units of measurement to describe these attributes. Students may also be considering what unit of measurement is appropriate for a given object.

- Measuring and estimating liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).
- Measuring areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
- Solving real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
- Solving addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems (for example, by using an equation with a symbol for the unknown angle measure).
- Determining which unit of measure is appropriate for a given object (for example, mm might be appropriate to measure a lady bug but less appropriate when measuring the height of the classroom).
- Recognizing volume as an attribute of solid figures and understanding concepts of volume measurement.

MD-CONV Converting units of measurement

The class is converting like measurements within a given measurement system. Students may convert measurements to solve problems involving distances, intervals of time, liquid volumes, masses of objects, and money.

- Knowing relative sizes of measurement units within one system of units including: km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec.
- Expressing measurements in a larger unit in terms of a smaller unit (for example: the number of ounces in 3 lbs.; the number of hours in a week).
- Converting among different-sized standard measurement units within a given measurement system (for example, convert 5 cm to 0.05 m), and using these conversions in solving multi-step, real world problems).

G-FIG Geometric figures

The class is considering geometric shapes and figures, which include points, lines, segments, rays, angles, polygons, planes, and three-dimensional solids. This tag includes instances when the class is defining, analyzing, classifying, drawing, and/or constructing geometric figures.

- Recognizing and drawing shapes with specified attributes, such as a given number of angles or a given number of equal faces.
- Understanding that shapes in different categories (for example, rhombuses, rectangles, and others) may share attributes (for example, having four sides), and that the shared attributes can define a larger category (for example, quadrilaterals).
- Drawing points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines.
- Identifying points, line segments, rays, angles and perpendicular and parallel line segments in two-dimensional figures.
- Understanding that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category (for example, all rectangles have four right angles and all squares are rectangles, so all squares have four right angles).
- Classifying two-dimensional figures in a hierarchy based on properties (for example, a square is a special type of a rectangle).
- Drawing (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions.
- Describing the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

Does not include work explicitly related to area and volume. Does not include work explicitly related to congruence and similarity.

G-AR-VOL Area and volume

The class is deriving and/or applying formulas for area, surface area, and volume.

- Finding the area of rectangles (for example, by partitioning a rectangle into rows and columns of same-size squares and counting to find the total number of them).
- Finding the area of right triangles, other triangles, special quadrilaterals, and polygons (for example, by composing into rectangles or decomposing into triangles and other shapes).
- Representing three-dimensional figures using nets made up of rectangles and triangles, and using the nets to find the surface area of these figures.
- Using the formulas for the area and circumference of a circle to solve problems.
- Solving real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

G-CN-GR-SIM Congruence and similarity

The class is considering the meaning of congruence and similarity and/or determining if two geometric figures are congruent or similar. This tag also applies to work on transformations, including rotations, reflections, translations, and dilations.

- Solving problems involving scale drawings of geometric figures, including computing actual lengths from a scale drawing and reproducing a scale drawing at a different scale.
- Using facts about congruent angles to write and solve simple equations for an unknown angle in a figure.
- Exploring properties of rotations, reflections, and translations.
- Understanding that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations.
- Describing the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.

RP-RATIO Ratios and proportional relationships

The class is explicitly considering ratios and proportions.

- Using ratio language to describe a relationship between two quantities (for example, the ratio of wings to beaks in the birdhouse at the zoo was 2:1, because for every 2 wings there was 1 beak).
- Calculating rates (for example, unit pricing and constant speed).
- Understanding the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and using rate language in the context of a ratio relationship (for example: (1) a recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar; (2) we paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger).
- Deciding whether two ratios are equal.
- Identifying the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
- Representing proportional relationships by equations.

NS-NEG-RAT The rational number system

The class is considering negative numbers and/or the distinction between rational and irrational numbers.

- Focusing on the meaning of positive and negative numbers (for example, temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge).
- Describing situations in which two quantities combine to make 0.
- Representing negative numbers on the number line.
- Ordering rational numbers (must include at least one negative number).
- Finding the absolute value of rational numbers.
- Adding, subtracting, multiplying, or dividing numbers that include at least one negative number.
- Ordering irrational numbers.
- Exploring the idea that there are numbers that are not rational, and approximating them by rational numbers.

Does not include operations with only positive rational numbers. Does not include placing only positive rational numbers on the number line. Does not include ordering only positive rational numbers.

EE-RAD-EXP Radicals and exponents

The class is working with radicals or integer exponents.

- Writing and evaluating numerical expressions involving whole-number exponents.
- Applying properties of integer exponents to generate equivalent expressions.
- Using scientific notation to express very small and very large numbers.
- Evaluating square and cube roots of perfect squares and cubes.

EE-EXPR Expressions

The class is working on writing, reading, simplifying, and evaluating expressions that contain at least one variable.

- Using properties of operations to generate equivalent expressions.
- Applying properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
- Identifying when two expressions are equivalent (for example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for).
- Understanding that rewriting an expression in different forms can shed light on the problem and how the quantities in it are related (for example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05”).

EE-EQ-INEQU Equations and inequalities

The class is writing and solving equations and inequalities. This tag applies to equations and inequalities that use variables to represent an unknown number or any number in a specified set.

- Using variables to represent numbers and write equations to solve real-world or mathematical problem.
- Identifying which values, if any, make an equation or inequality true.
- Writing an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable.
- Analyzing the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.
- Writing an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem.
- Representing solutions to inequalities on a number line.

This tag does not apply to work explicitly on linear equations. This tag does not apply to writing and interpreting basic numerical expressions and equations.

EE-LIN-EQ Linear equations

The class is working with two-variable equations that model a linear relationship.

- Interpreting slope.
- Deriving the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b .
- Working with various forms of linear equations including standard form and point-slope form.
- Solving linear equations in one variable.
- Analyzing and solving pairs of simultaneous linear equations.

SP-STATS-ALL Statistics

The class is collecting, organizing, and/or interpreting data.

- Creating and interpreting graphical displays of data including bar graphs, line plots, box plots, histograms, and scatterplots.
- Calculating measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing overall patterns and striking deviations.
- Investigating patterns of associations in bivariate data. Constructing and interpreting scatterplots and two-way tables; using the equation of a linear model to solve problems; and describing patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.

SP-PROB-ALL Probability

The class is considering chance processes and/or probability models.

- Interpreting the meaning of probability expressed as a number between 0 and 1 that represents the likelihood of an event occurring.
- Collecting data to investigate the probability of a chance event.
- Determining the probability of an event.
- Finding probabilities of compound events (for example, rolling “double 6s”) using organized lists, tables, tree diagrams, and simulation.

F-FXNS Functions

The class is explicitly considering the meaning or concept of functions and/or working with functions.

Note: Function notation is not required for the tag to apply.

- Defining functions.
- Testing to see if a given relation is a function.
- Translating among representations and partial representations of functions.
- Using functions to model relationships between two quantities.

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