

Drawing Characteristics	Operational Definition
Date	Date the drawing was created
Grade level (Optional)	
District/School (Optional)	
Teacher Name (Optional)	
Drawing #	01, 02, 03...
Student Attributes	
One student depicted individually	Only one student is depicted in drawing
Multiple students	More than one student is depicted in drawing
Depicted positively	Student(s) clearly depicted positively as indicated by smiling, other positive facial expression or indicated by label or text
Negatively	Student(s) clearly negatively depicted as indicated by frowning, other negative facial expression or indicated by label or text
Neutral	Student(s) depicted but with neither a positive or negative demeanor/expression
Cant discern	Student(s) depicted but facial features or affect is obstructed or otherwise unknown
Student to student communication	Words (or some indication of communication) are depicted between one or more students
Student to teacher communication	Words (or some indication of communication) are depicted between at least one student and the teacher
Working Individually	Students are depicted individually in the drawing (non collaborative)
Working in small groups	Students are depicted interacting together in clusters of 2-4 students
Large group setting	Students are depicted in groups larger than 5 students
At desks	Student(s) depicted seated and/or working at a desk
On rug	One or more students are portrayed sitting on working on a rug
Student desks clustered	Students (or desks/workplaces) are arranged in clusters (typically desks or table(s) touching)
Student desks in rows/grid	Students (or desks/workplaces) are arranged in more traditional rows or grid (desks or tables typically not touching)
Teacher Attributes	
Teacher is depicted	At least one teacher is depicted in the drawing
More than one adult/teacher depicted	More than one teacher/adult (teachers assistant, edtech, volunteer) is depicted in drawing
Depicted positively	Teacher is clearly depicted positively as indicated by smiling, other positive facial expression or indicated by label or text.
Depicted negatively	Teacher is clearly negatively depicted as indicated by frowning, other negative facial expression or indicated by label or text.
Depicted Neutral	Teacher is depicted but with neither a positive or negative demeanor/expression.
Cant discern teacher depiction	Teacher is depicted but facial features or affect is obstructed or otherwise unknown.
Located at teacher desk	Teacher is depicted at or near the teacher desk
Located at front of the room/board	Teacher is depicted at the front of the room and/or at the board
Speaking/thinking	Words (or some indication of communication) are depicted from teacher.
Working with individual student	Teacher is depicted alongside or addressing a single student
Working with small groups of students	Teacher is depicted alongside or addressing a small group of students (2-5 kids per group)
Working with whole class	Teacher is depicted alongside or addressing a large group of students (more than 5 kids per group)
Teacher depicted on the rug	Teacher is portrayed sitting on working on a rug

Type of Math depicted	
Addition	Addition, plus signs, and/or other examples of addition are present anywhere in the drawing
Subtraction	Subtraction, minus signs, and/or other examples of subtraction are present anywhere in the drawing
Multiplication	Multiplication and/or other examples of multiplying numbers are present anywhere in the drawing
Division	Division and/or other examples of dividing numbers are present anywhere in the drawing
Clocks/calendar	Clocks or calendars are present anywhere in the drawing
Fractions/decimals	Fractions or decimals are present anywhere in the drawing
Counting/number line	A number line, or counting activity is present anywhere in the drawing
Geometry	Geometry (lines, angles, shapes) are depicted in the drawing
Can't discern Math	Some form of math is depicted not discernable in another category
Tools and technology Depicted	
Whiteboard/Smart board	Smart board, chalkboard, or classroom whiteboard is depicted anywhere in the drawing
Books/paper/pencil	A pencil, paper, or books are depicted anywhere in the drawing (or assumed)
Computer technology for students	iPad, Chromebook, or other computing devices are depicted anywhere in the drawing
Computer technology for teachers	Teacher computing device (laptops, desktop, iPads, chromebooks) depicted in the drawing
Computer technology other	Not clearly student or teacher technology- but technology is present in the drawing
Manipulative/blocks /hands-on math tools	Drawing depicts hands-on math tools like manipulative, counting blocks, etc. (not flash cards, or dot cards)
Games	Drawing depicts math games
Arrays/ tools depicting visual display of math	Arrays are depicted or other visual representation of math concepts (numbers in blocks, rows, and columns)
Flash cards	Flash cards, showing or inferring math problems, are depicted anywhere in the drawing (numbers)
Dot cards	Similar to flash cards, but depiction includes dots arranged on cards (dots)
Student Whiteboards	Mini student whiteboards are explicitly depicted or identified anywhere in the drawing
Furniture	
Rug/carpet	Rug or carpet is depicted in the drawing
Stations/centers around classroom	Drawing depicts class environment that has different stations or locations around the classroom for distinct different activities
Teacher desk	Teacher's desk is clearly depicted or labeled anywhere in the drawing
Kidney shaped table	A kidney shaped desk or table is depicted or labeled anywhere in the drawing
Classroom decorations	Posters, signs or other classroom decorations are depicted in the drawing (Not clocks or windows)
Projector	A projection device or screen (including document camera or overhead) is depicted or labeled in the drawing
Non traditional furniture	Non-traditional classroom furniture such as bean bags, couches, yoga-ball chairs, etc., are portrayed

