

To establish classroom norms for mathematical work		such as norms for how to appropriately talk to or with teacher and fellow students how to appropriately arrive in, be in, move about, and leave the class how to appropriately take on and turn in assignments
A teacher would	Which means	For example
<u>Create a Context</u>	<ul style="list-style-type: none"> • Deliberately create work contexts in which s/he has the chance to establish norms. • Anticipate behaviors that might happen in those contexts. • Make explicit his or her values in those contexts while the class goes about its work, by pointing to examples and non examples of appropriate actions. • Use students' <u>actions</u> as context, not students' character. 	<ul style="list-style-type: none"> • Start the first day of class having students work on a problem that presumes (but does not explicitly say that) students will (1) think for some time, (2) retrieve prior knowledge or (3) have need for tools. • Expect a diversity of behaviors from students, including students who (1) think for a moment and stop and those who persist, (2) talk to others or raise questions as well as those who try to recall silently, (3) reach out for tools as well as those who do not • As students go about those actions, comment what is positive and what is negative in them. For example, (1) "I really admire how Mindy took on this problem. She had a couple of false starts, and she could have thought 'I can't do this' but rather than giving up, she kept thinking and now it does look like she is onto something," or (2) "I like that Joey and Sandra are helping remind each other what the area formula for a triangle is," or (3) "I value Henry's decision to go and get himself a calculator. I did not like, however, that when he was walking down the aisle he deliberately moved Mike's paper."
<u>Propose Few General Norms</u>	<ul style="list-style-type: none"> • Choose norms that apply to many particular cases • Make clear that common sense, individual conscience, and occasional discussion should lead people's understanding of when and how a norm applies. 	<ul style="list-style-type: none"> • (1) "if the problem is hard, try harder" would be better than "if you can't solve the problem instantly, think for a minute;" (2) "feel free to talk about mathematics unless it is wiser to rather listen" would be better than "absolutely no talking unless I say you may talk;" (3) "get your materials without infringing on others' space or property" would be better than "stay in your seat at all times, anything you need will be provided to you." • Provide some reflective questions for students to use to monitor their own compliance with the norms (1) Is this my personal best?; (2) Should I rather be listening?; (3) What could I use to do this problem? What would be a resourceful but considerate way of getting it?
<u>Have Learning-focused Norms</u>	<ul style="list-style-type: none"> • Norms should promote actions that are mathematically or intellectually productive. • Norms should also promote organized collective work, civility 	<p>A norm such as "absolutely no talking when I am talking" discourages students from asking questions when those questions come to them or from expressing their engagement with the material. A norm like "feel free to talk about mathematics unless it is wiser to rather listen," in contrast, allows the teacher to call attention on those who engage in idle talk ("should you be listening now?") while welcoming the mathematics talk of others. (This also exemplifies how a teacher can make good use of the ambiguity of the norm.).</p>

	<p>and respect, and individual study and work ethics.</p>	<p>A norm such as “when somebody offers an idea, ask yourself ‘do I agree with that?’” encourages students to listen critically to others. A norm such as “be considerate and polite even in disagreement” encourages students to avoid aggressive behavior even when they oppose a classmate. Instead if your norm was, “wait for your turn to talk,” students would not be encouraged to listen to each other. Civility norms like “be polite” need to be supported by other norms that make people realize that one does not necessarily check one’s brains out to be polite.</p>
<p><u>Teach</u> Students the Norms</p>	<ul style="list-style-type: none"> • State or lead students to state what is good or bad about a particular action. • Derive the general norm from a consideration of the particulars. • Lead the students to consider other examples and nonexamples of the general norm. 	<p>Consider the case of Henry getting up to fetch a calculator and moving Mike’s paper. You could start asking the class to tell you what Henry just did. You would get things like “he got up without asking for permission,” “he got a calculator,” “he messed up my paper,” etc. Then ask them what they think about that, why do they think he would do that. Derive the general—“he thought about resources he needed and tried to get them. He was resourceful. He wanted to play with Mike but did not realize Mike ’s worksheet is not a playground. He was not respectful.” Consider more examples: “Next time when I give you a problem, you may think, I’d rather do this with a ruler, what should a resourceful student do?” “You should always be respectful. If someone is sharing his idea and you suddenly have another idea, what would be the respectful thing to do?”</p>
<p><u>Present a Rationale</u></p>	<ul style="list-style-type: none"> • Explain, discuss, or negotiate with students why such norms are important for the class and the teacher. • Relate norms to principles of mutual respect and individual progress in forming an “academic character” and a “mathematical sensibility.” 	<p>When you introduce a norm like “be respectful to others’ space and property” you might want to prompt students, Why would you want to be ... ? Because you will like others to respect your space and property as well. Say, “If you continue to be respectful to others’ ideas even when you think you have a better idea, that shows you are somebody who can do and study mathematics with others. In the long run you will be able to learn some mathematics from others too.”</p>
<p><u>Hold Students Accountable</u></p>	<ul style="list-style-type: none"> • Decide deliberately on whether and how to fight specific battles, sharing your rationale with students. • Expect students to monitor their own behavior as well as respect the authority of the teacher. 	<p>Depending on other circumstances you might (1) say in front of the whole class “Mike that was an offensive remark, you are not being respectful,” or (2) approach Mike in private and say that while you appeared not to hear his remark, you actually did and think that he should apologize.</p> <p>Give students clues that promote monitoring. “When you hear something like that, what comes to your mind?”</p>