PD1 Collaborative Learning

Collaborative learning requires us to develop certain ways of working in the classroom that are often different when compared to students' previous experiences. They will probably have experienced maths lessons in which the teacher knows the right answer and views of other students are not shared. In Maths-for-Life lessons it is recognised that students often have different ways of seeing and working mathematically –ways that often lead to the right answer. Our intention is that we use a dialogic approach to collaborate and build on each other's knowledge and understanding so that we all master the topic.

The teacher's role in collaborative learning is to…

A. **Mainly** be a 'facilitator' who:

1. Directs the flow of the discussion to allow everyone to participate.	"Listen to what Jane is saying."
2. Does not interrupt or allow others to interrupt the speaker.	"Thanks Harpreet, but keep listening to Hannah a little longer"
3. Values everyone's opinion and does not push his or her point of view.	"How do you react to that Tom?"
4. Helps learners to clarify their own ideas in their own words.	"So are you saying…"

B. **Occasionally** be a 'challenger' who:

1. Introduces a new idea when the discussion is flagging.	"What would happen if…?"
2. Follows up a point of view.	"Can we just pick up on what Ali said…"
3. Plays devil's advocate.	"Surely x multiplied by x is 2x?"
4. Focuses on an important concept.	"Can you explain how you factorise an expression – rather than multiplying out the answer."
5. Asks provocative questions, but not 'leading', or 'closed' questions.	"When is the rate method a better way to tackle questions than the unitary method?"

C. **Never** be an 'evaluator' who:

1. Assesses every response with a 'yes', 'good' or 'interesting', etc.	"That's not quite what I had in mind." "Yes, that's right."
2. Sums up prematurely.	"No, you should have said…"

The ground rules for students during collaborative learning should be…

1. *Give everyone in your group a chance to speak*	"Let's take it in turns to say what we think." "Claire, you haven't said anything yet."
2. *Listen to what people say*	"Don't interrupt - let Sam finish." "I think Sam means that ...."
3. *Check that everyone else listens*	"What did Sue just say?" "Could you repeat that? I think it's really important"
4. *Try to understand what is said*	"I don't understand. Can you repeat that?" "Can you *show* me what you mean?"
5. *Build on what others have said*	"I agree with that because ..." "Yes and I also think that ...."
6. *Demand good explanations*	"Why do you say that?" "Go on ... convince me."
7. *Challenge what is said*	"That cannot be right, because..." "This explanation isn't good enough yet."
8. *Treat opinions with respect*	"That is an interesting point." "We all make mistakes!"
9. *Share responsibility*	"Let's make sure that we are all able to report this back to the whole class."
10. *Reach agreement*	"We've got the general idea, but we need to agree on how we will present it." "Do we all agree?"