

TTP Lesson Phase	Purpose of Teacher Questioning	Examples of Teacher Questions
Phase 1 – Grasp the Problem	Encourages students to: want to solve the problem, notice what is similar or different from prior problems they have solved, consider what they know that may be useful	<ul style="list-style-type: none"> • What is the problem asking? • What do we know that might help us solve this problem?
Phase 2 – Try to Solve	Encourages students to: try to use what they know, try to solve the problem, using important reasoning tools (mathematical expressions, models, etc.), explain and justify their method	<ul style="list-style-type: none"> • What do you know? • What do the numbers in the problem mean? • How do the numbers in the problem show up in your picture? • How can you convince others? • Can you write a mathematical expression for your method? • Can you solve the problem in another way?
Phase 3 – Present and Discuss	Encourages students to: understand classmates' ideas and to compare and connect them; consider the accuracy, efficiency, generalizability of presented ideas; connect their own ideas with presented ideas	<ul style="list-style-type: none"> • How many solved it this way? • Can you explain what Shavon did? • Do you agree with this method? • What is the same and different about Sam's and Marika's methods? • What are the good points and difficulties of each solution method? • Are there any more ways to solve this? • Will this always be true?
Phase 4 – Summarize and Reflect	Encourages students to: summarize what they learned, individually write about their own learning after hearing classmates' summaries	<ul style="list-style-type: none"> • What did we learn today? • How did my ideas change? • What method used by a classmate do I want to try? • What do I wonder about?