

<p>75 min</p>	<p>Learning outcomes:</p> <ol style="list-style-type: none"> 1. Take up the homework from lesson 5, answer questions related to lab activity from day 6 2. Understand the principle of superposition 3. Identify destructive and constructive interference as special cases of superposition 4. Determine/draw the resultant pulse from two incoming pulses <p>This activity is based on investigation 8.5.1 in the textbook on page 404</p>	<p>Materials</p> <ul style="list-style-type: none"> • Blackboard • Chalk • Computer • overhead projector •
<p>Minds On...</p> <p>10 min</p>	<ol style="list-style-type: none"> 1. Teacher asks students if two waves were to meet, how would they react to each other? What characteristics of the wave may be important determinants of this interaction. Students' suggestions are heard. (amplitude, frequency, speed, direction, and wavelength) 2. Teacher introduces the topic of noise elimination, and noise eliminating earphones, the video at: http://www.youtube.com/watch?v=VTx4JgYsW5s is shown 	
<p>Action!</p> <p>20 min (Done prior to minds on activity)</p> <p>10 min (done after minds on activity)</p> <p>10 min</p> <p>10 min</p> <p>5 min</p>	<ol style="list-style-type: none"> 1. Students solve and explain the homework questions on the blackboard. 2. Provide opportunity for students to ask questions about the lab report. 3. The principle of superposition is explained by teacher, teacher works out examples on the board 4. Students work individually on an exercise sheet of different wave shapes that superpose, exercises include cases of constructive and destructive interference 5. Students volunteer to solve the exercises on the board. 6. Once solutions are on board, students are guided to identify constructive and destructive interference. The conditions are identified by students with teacher guidance. 7. Students work on exercises that are explicitly about interference 	
<p>Consolidate</p> <p>Debrief</p> <p>10 min</p>	<ol style="list-style-type: none"> 1. Exercises are solved on the blackboard by students with teacher's guidance 2. Homework is assigned 	
	<p>Home Activity or Further Classroom Consolidation</p> <p>Solve questions 1, 2, and 3 on page 419 in the textbook</p>	