

**Main Ideas, Key Points,  
Questions:**

*After watching the video segment, write down key points, main ideas and big questions.*

**Objective(s):**

- *To analyze data and construct an explanation for the ability of ionic salt dissolution to absorb or release heat energy.*
- *To use the equation  $q=mC\Delta T$  to calculate heat transferred during the dissolving of an ionic salt.*

**Notes:**

*During the video segment, use words, phrases or drawings to take notes.*

**Summary:**

*After watching the video segment, write at least three sentences explaining what you learned. You can ask yourself: "If I was going to explain this to someone else, what would I say?"*

**After watching the video and performing any associated labs and/or experiments, you should be able to answer the following:**

*Before viewing the Unit 8E video, make sure you have planned and carried out the performance task measuring the effectiveness of four different chemicals for hand warmers and cold packs. Prepare a graph of your data. Then you may proceed with the Unit 8E video.*

- 1. List the four ionic substances used in the experiment in order of their ability to increase temperature and decrease temperature.**
  
  
  
  
  
  
  
  
  
  
- 2. For one of the substances in the list above, show the calculation of heat transferred during the dissolving of an ionic salt compound using the equation  $q = mC\Delta T$ . Use the value of the specific heat capacity of water as 4.18 joules per gram per degree Celsius.**
  
  
  
  
  
  
  
  
  
  
- 3. According to your data, which ionic salt would be the best choice for a useful heat pack? Why?**
  
  
  
  
  
  
  
  
  
  
- 4. According to your data, which ionic salt would be the best choice for a useful cold pack? Why?**