Questions to go with the color changing playlist of videos

There are a few videos on cobalt chloride changing colors. You can use this to take some notes because what is happening in those videos is pretty important to understand.

1. What color is the cobalt complex when it is only bound to water?
2. What color is the cobalt complex when it is bound to chloride ions?
3. When more chloride ions are added to a pink solution, what happens to the color? Why does this happen?
4. When more water is added to a blue solution, what happens to the color? Why does this happen?
5. What happens when heat is added to the system? Why does this happen?
6. What happens when heat is removed from the system? Why does this happen?
7. When silver nitrate is added to the solution, what happens to the color? Why does this happen?
8. Write out the equation for the equilibrium of cobalt chloride. Show with arrows what direction the shift will take in the following situations. Be sure to label your arrows so that I can tell what you are trying to show.
   1. More chloride ions added
   2. More water added
   3. Heat added
   4. Heat removed
   5. Silver ions added
9. What is the name of the person who figured out that equilibrium shifts to release the stress on the system?

Questions about the other videos

1. There is something unique about the elements that can change color. Other than iodine, what is unique about these elements?
2. The reactions that have oscillating color changes, why is this able to happen?
3. For the iodine clock reaction, there is something unique to how it works. Did you pick up on what makes the iodine clock reaction different than other color changing reactions? If so, what is it.
4. Look at some of the comments that are written about the videos. Find one you think adds to the conversation in a positive way. Why did you choose that comment? (Tell which video it is on so that others can enjoy it, too.)
5. Not all of the comments contribute in a positive way. Some even explain the science incorrectly. Find a comment that makes you question whether the comment is correct or if the video is correct. Tell which video it is and who said the comment.
6. Which video is your favorite one? Why did you choose this video?