

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

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

Objective(s):

- *To construct explanations for how to separate materials from each other using melting, magnetism, density, filtration, distillation, crystallization and chromatography.*
- *To plan and carry out a separation investigation using chromatography.*

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:

- 1. Some mixtures, like alloys, are difficult to separate. How can you separate a mixture of two metals using melting?**
- 2. How can the physical property of magnetism be used to separate a metal from a mixture?**
- 3. How can water be separated from oil?**
- 4. How can solid orange pulp be separated from liquid orange juice?**
- 5. Distillation occurs when a liquid mixture is heated. One of the liquids boils and the vapor can be captured and condensed into a pure liquid. Please write an example of a liquid that can be distilled.**
- 6. In the distillation process, sometimes solids are left behind when the liquids boil away, leaving crystals. Name: a material that can crystallize in this way.**

In this video, you were asked to conduct an investigation using chromatography. Please answer the following after completing the chromatography investigation.

- 7. What is a chromatogram? (use words or draw a picture)**