

CASEIN PLASTIC INVESTIGATION

To conduct a true scientific investigation, you first need to observe!

1. Gather the materials listed on this page then follow the instructions provided on ScienceBuddies.org: [Turn Milk into Plastic](#).
2. Record observations in a journal or notebook. Make sure to use multiple senses (Just not taste!).
3. Make a list of things you wonder.

Now its time to conduct your own investigation!

1. Choose one of the things you wondered (ex: I wonder what would happen if the milk wasn't hot)
2. Choose one of the things you observed (ex: The mixture clumped together)
3. Now you can start to plan your investigation! The thing you wondered will be the one variable you will change in your experiment. Everything else you wondered becomes controlled variables —the things you won't change. For example: Change the temperature of the milk but all measurements stay the same, container stays the same, type of milk stays the same, etc.
4. The chosen observation is what you are going to measure (could measure how much useable casein plastic the investigation made by weight).
5. Check out Smarter Science for ['Steps to Inquiry'](#) PDFs and posters to help with the process!

Materials Needed

- Steaming Milk (250mL)
- White vinegar (20mL)
- Measuring cup & spoons or graduated beaker/cylinder
- Optional: Thermos
- heat-resistant cup (at least 300mL)
- Paper towels
- Spoon

