Get at store:

* active dry yeast
* eggs
* kids toothbrushes
* lemonade
* coca cola

Planning session:

* three pint glasses (trent)
* yeast (trent)
* sugar (trent)
* warm water (bathroom)
* paper towels (bathroom)
* cola stained egg (trent)
* lemonade stained egg (trent)
* control egg (trent)
* toothbrush + toothpaste (trent)

Experiment:

* Nx3 beakers (inventory)
* masking tape (inventory)
* N sharpies (inventory)
* yeast (trent)
* sugar (trent)
* N toothbrushes (trent)
* toothpaste (trent)
* N cola stained eggs?
* N lemonade stained eggs?
* N control eggs? (trent)
* cola? lemonade? both? (trent)

Plaque:

* leftover food (and sugar) mixes with your saliva, which has bacterial and fungal components
* this mixture creates an acidic environment which can cause gum disease and tooth decay (plaque)
* the more surage and food there is, the colony can grow larger
* the colony is an anaerobe, oxygen kills them, so brushing and exposing/agitating the plaque helps kill the colony
* yeast does what the bacteria would do (take sugar, turn it into acidic colony)

Staining:

Resources:

* <https://vimeo.com/264070297>
* <https://www.pre-kpages.com/dental-health-science-experiment/>
* <https://www.virginiaisforteachers.com/2016/02/plaque-attack-experiment-for-dental.html?m=1>
* <http://missbreensbrilliantbunch.blogspot.com/2011/09/plaque-attack.html>

To do:

* get more yeast (Trent)
* get more eggs (Trent)
* get pink lemonade (Trent)
* test salt plaque (Trent)
* inventory
  + 12 beakers (just need to be clear)
  + masking tape
  + 4 sharpies
  + plastic cups for them to stain their eggs
  + plastic spoons (if we have them)

Intro video:

* tooth health and sugar

Outro video:

* funny plaque commercial?

Staining procedure:

* what would happen if you don’t have toothpaste and water?
* does cleaning work better with toothpaste and water?
* use pink lemonade
* eggs
  + coca cola
  + pink lemonade
  + chocolate milk
  + no stain
* Let them stain the no stain egg with coca cola

Plaque attack:

* three solutions: yeast + water, yeast + salt + water, yeast + sugar + water
* ask students, what do you think will happen to the yeast? draw with crayons
* spin/stir to speed up reaction