

# How long does it take to stain teeth?

Grades 6-10

Teeth are naturally white or off white in color, but over time build up from foods and drinks can stain and discolor teeth. In this experiment, by using egg shells we can see the staining that coffee, tea, and cola cause.



### Materials

- 3 hollowed out eggs
- Coffee
- Tea
- Cola
- 3 large plastic containers

### Procedure

1. Wash and dry eggs.
2. Using a large needle, pierce both ends of the shell.
3. Wiggle needle around in a circular motion to open the hole at one end of the egg.
4. Holding egg over a bowl, blow into opening to force egg white and yolk out of egg.
5. Fill 3 separate large containers with each liquid: Coffee, Tea and Cola.
6. Put 1 egg in each container
7. Make a 4 day chart and record your findings each day.
8. Everyday take the egg out of the liquid and observe the progress.
9. Take photos of the gradual change. On the day you really start to notice the discoloration note the day.
10. Record results and compare.



### Questions

1. Record photos taken and discuss the color changes.
2. How long did it take for each liquid to discolor the egg?
3. Compare the effects of the three liquids.

Inspired from: <https://www.education.com/science-fair/article/how-long-does-it-take-to-stain-teeth/>

