

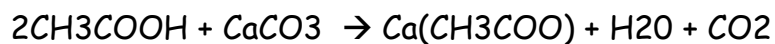
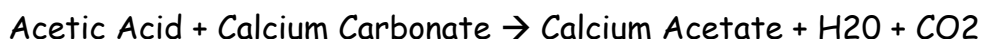


## Etch This!

Supplies: Antacid Tablet (such as Tums), clear tape, small cup, vinegar, spoon, timer, plate

### Instructions:

1. Firmly stick two pieces of clear tape side by side onto a tablet, leaving a gap so that a 2 mm strip of tablet is exposed (tape should cover sides and bottom as well.)
2. Observe the taped tablet; predict what material will be etched away when submerged in vinegar. Draw a side profile of what you think it will look like.
3. Place the tablet in a small cup. Pour vinegar until the tablet is submerged.
4. Set a timer for 5 minutes.
5. Observe the gas formation during reaction. This seemingly simple reaction is actually happening at the nanoscale!



6. After 5 minutes remove the tablet with a spoon and place on a plate.
7. Observe what got etched, look top down and also from the side. Does it look as you predicted? Draw what it actually looks like.
8. Wet etching undercuts the pattern, and creates a bowl shape. To get a nice straight profile we have to do something different. Watch the video!

\*Adapted from NEATEC