Famous Molecule: Theobromine

If you love chocolate, then you love **theobromine**. According to the American Chemical Society, chocolate contains more than 300 chemicals with theobromine being an important one. With its bitter taste, theobromine is one reason chocolate tastes better mixed with sugar. While humans love theobromine, it is a deadly poison for dogs, cats, and brown bears.

![Theobromine molecule](image)

**Materials**
- Molecular Model Kit (IF YOU DO NOT HAVE A KIT – you can use Clay instead)
- Pipe cleaner, cut into 4 2-inch pieces (optional)

**Procedure**

Use the drawing above to make theobromine.

- When you see one line that means there is a single bond between the two atoms
- When you see two lines that means there is a double bond between the two atoms
- The 4 nitrogen atoms have a one pair of electrons. If your kit has one, use the lone pair piece. If it does not, use pipe cleaner pieces folded in two to stick into the empty holes.