



# Introduction to Chemistry

2.1 (CONCEPT 1)

# What is wrong with this picture?



Making a  
Chemical-Free  
Home

RoyalLittleLambs.com

# DISCUSS

- ▶ What is a chemical? Give examples.
- ▶ Are chemicals bad for us?
- ▶ Why/where/how might this misconception that chemicals are bad for us have arisen?
- ▶ If something is natural or organic, does that mean it is good for you or healthier?

# Appeal to Nature (not testable)

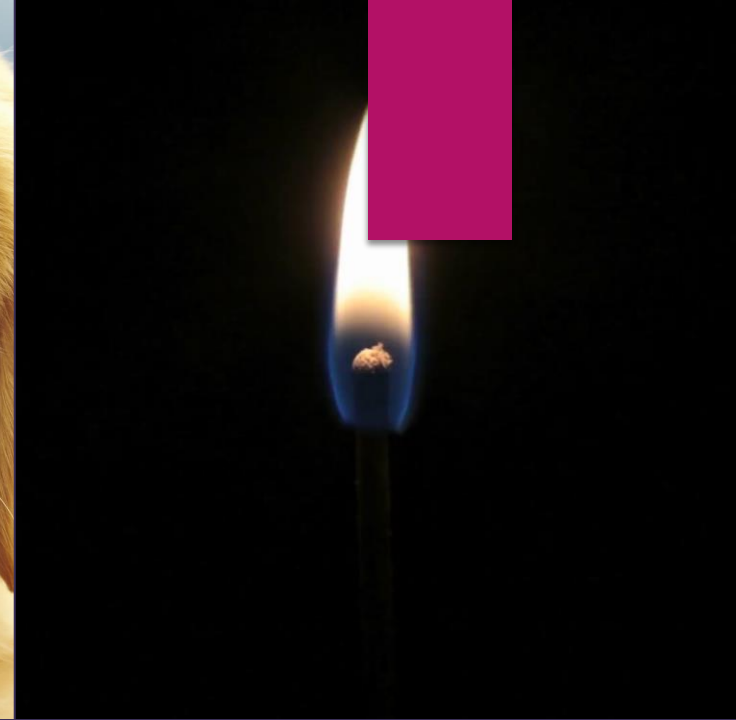
- ▶ An *appeal to nature* is an argument that claims that something is either good because it is considered 'natural', or bad because it is considered 'unnatural'. (effectiviology)
- ▶ E.g. Herbal medicine is natural, so it is good for you.
- ▶ E.g. Antibiotics are unnatural, so they are bad for you.
- ▶ More reading: <https://effectiviology.com/appeal-to-nature-fallacy/>

# Textbook Stuff

- ▶ Read page 96 and take notes on the definitions of “chemical” and “matter” (and anything else interesting)
- ▶ Question in Figure 2.1 caption (point form ok).
- ▶ “Before you leave this page” questions 1 and 2.

# The Heart of the Matter

- ▶ Share and critique your alternate definition of 'matter' with a partner.
- ▶ Which of the following pictures are considered matter? Which are not?



# Matter vs Chemical

## ▶ Matter:

- ▶ “anything that has mass and takes up space” (textbook)
- ▶ “any pure substance (an element) or any mixture (a solution, compound, or gas)” (thoughtco)

## ▶ Chemical:

- ▶ “certain substances or mixtures of substances...no specific scientific meaning...everything in the world that isn't energy is a chemical or contains chemicals”
- ▶ “any substance consisting of matter...occur naturally and can be made artificially” (thoughtco)

# The Heart of the Matter

- ▶ Design at least one experimental set-up and procedure which can effectively determine whether something is considered matter or not. Be creative and practical!

