# Intro

1. What are some sources of energy?


1. Which source of energy should we use and why?

# Agenda

1. Review last class (10)
2. Online Work (20)
3. Cookie Mining (30)
4. Fracking video + discuss (10)
5. Tragedy of the commons (10)

# What energy source should we use in MA?

# Online work - 30 min

# Cookie Mining Rules

1. Players cannot use their fingers to hold the cookie. The only things that can touch the cookie are the mining tools and the paper on which the cookie is sitting.
2. Players should be allowed a maximum of five minutes to mine their chocolate chip cookie. Players who finish mining before the five minutes are used up should only credit the time spent mining.
3. A player can purchase as many mining tools desired; the tools can be of different types.
4. If the mining tools break, they are no longer usable and a new tool must be purchased.
5. The players that make money by the end of the game **win**.

# Cookie Mining Rules

- A chip must NOT have any cookie left on it to be considered usable
- Only one person can mine at a time
- You must leave all crumbs on your sheet

# Tragedy of the Commons

☐ Describes what can happen when a resource is owned in common but not managed in common.

☐ Concept of "The Commons" developed by biologist Garrett Hardin

☐ Commons include:

    | Oceans

    ☐ Air

    ☐ Space

    | Internet

    ☐ Public lands (e.g. National Parks)

    ☐ Antarctica

# Any others?

## Water - A Common(s) Problem

- **Tragedy of the Commons theme (Hardin)**
- **Overuse and abuse of water resources by individuals and organizations depletes the resource for all**
- **Externalities**
- **No incentives to conserve**

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# Fracking