Oysters are an iconic species in the Chesapeake Bay and oyster populations have faced many challenges from over-harvesting to diseases such as *Dermo* and *MSX*. The increase in burning fossil fuels has raised ocean temperatures due to the greenhouse effect. Our oceans are a natural carbon sink and absorb atmospheric CO$_2$, but with the increase in CO$_2$ emissions, they have absorbed more than they do naturally, causing issues for our oyster populations. Oyster reefs have become a target of restoration efforts through advocacy and research!

**Directions**: Fill out the 4 flowcharts about oyster impacts from climate change using the phrase bank listed below. (Answer key provided on last page!)

- **Red** phrases go in first box(es)
- **Green** phrases go in the middle box(es)
- **Purple** phrases go in the third box(es)
Phrase Bank

**Red** phrases go in first box(es)

**Green** phrases go in the middle box(es)

**Purple** phrases go in the third box(es)

- Warmer Water Temperatures
- More Greenhouse Gases
- More CO2
- Oysters cannot survive

- More Food for Oysters (Filter Feeders)
- Ocean Acidification
- Creates a more stressful environment
- Weaker shells for oysters

- Earlier spawning
- Fewer young oysters survive
- More nutrients in the water due to runoff
- More precipitation

- Increased salinity
1. More greenhouse gases → warmer water temperatures → earlier spawning → fewer young oysters survive

2. More CO2 → ocean acidification → weaker shells for oysters

3. More precipitation → more nutrients in the water due to runoff → more food for oysters (filter feeders)

4. Increased salinity → creates a more stressful environment → oysters cannot survive