# *POGIL Polymers*

*Guided-Inquiry Activities*
*for Polymer Chemistry and Polymer Physics*

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# Contents

# Part I

# Introduction to Polymers

## Chapter 1

# From Molecules to Polymers

## Activity 1: Activity Template

### Instructor Notes:

Here is some information for the instructor about doing this activity.

Eventually, the `pogil` class may be updated to include macros to standardize formatting, but for now, you will probably find it useful to include information about:

- Activity type
- Content goals
- Process goals
- Estimated time required
- Instructor preparation required
- Prerequisite knowledge

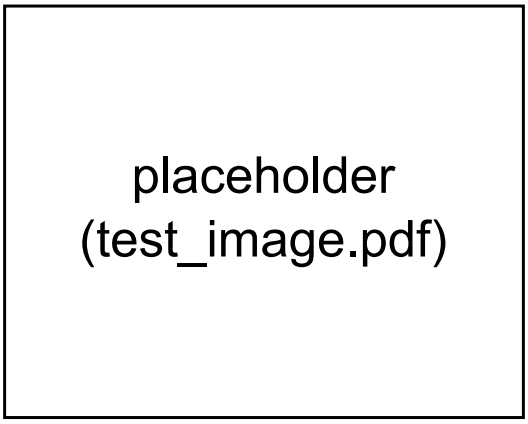
## Activity 1: Activity Template

**Focus question:** Put a central question for the students to consider through this exercise here.

### Model 1: ABC

Here is the first model for students to consider

Here is a second paragraph of text, followed by an image:




### Critical Thinking Questions:

1. First question?

2. Second question?

   Here is a dummy answer in the solution space.

3. Third question?

   Here is something we show only when we process the instructor version.

### Model 2: DEF

Here is a second model for students to consider.

### Critical Thinking Questions:

4. First question?

5. Second question?

Here's a solution environment that doesn't have a height set, but does have content.
(The previous solution environment has no height and no content.)

### Information:

Here is some useful information that might help the students with the next few critical thinking questions. In some cases, it might include an equation:

$$a^2 + b^2 = c^2$$

or even more than one equation:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

### Critical Thinking Questions:

6. First question?

7. Second question?

### Exercises:

1. First exercise

2. Second exercise

**Problems:**

1. First exercise
2. Second exercise

# Part II

# Polymer Chemistry

## Chapter 2

# Fundamentals of Polymer Chemistry

# Chapter 3

# Step-Growth Polymerizations

# Chapter 4

# Free-Radical Polymerization

## Chapter 5

# Controlled Polymerizations

# Chapter 6

# Copolymers

# Part III

# Polymer Physics

## Chapter 7

# Conformations of Polymer Chains

## Chapter 8

# Mechanical Properties of Polymers

# Chapter 9

# Phase Behavior of Polymers & Their Solutions

## Chapter 10

# Thermal Properties of Polymers