

# SOLUTION OR COLLOID?

STUDENT BOOK Chapter 1, page 11

## Goal

Learn to distinguish between a solution and a colloid.

## Observation criteria

1. What is a solution?

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2. What is a colloid?

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3. How can a solution and a colloid be distinguished?

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## Materials

- 6 slides
- 6 cover slips
- light microscope
- dropper bottle of milk (not skim)
- dropper bottle of toothpaste
- dropper bottle of apple juice
- dropper bottle of mayonnaise
- dropper bottle of shampoo (clear brand)
- dropper bottle of black coffee (drip)

## Procedure



1. Place a drop of milk on one slide.
2. Gently set cover slip on top of the milk.
3. Observe the milk under the microscope. Record your observations.
4. Repeat steps 1 to 3 with each of the other five mixtures.
5. Clean up and put away materials.



Name: \_\_\_\_\_ Group: \_\_\_\_\_ Date: \_\_\_\_\_

## Observations

Record your observations in the table below. Give the table a title.

**Title:**

Mixture	Observation under microscope

## Reflecting on your observations

1. Do your observations help you to better understand the difference between a solution and a colloid? Explain your answer.

\_\_\_\_\_

2. Which mixtures are solutions?

\_\_\_\_\_

3. Which mixtures are colloids?

\_\_\_\_\_

4. How would you describe the solutions:

- a) when observed with the naked eye?

\_\_\_\_\_

\_\_\_\_\_

- b) when observed using a microscope?

\_\_\_\_\_

\_\_\_\_\_

5. How would you describe the colloids:

- a) when observed with the naked eye?

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\_\_\_\_\_

\_\_\_\_\_



Name: \_\_\_\_\_ Group: \_\_\_\_\_ Date: \_\_\_\_\_

b) when observed using a microscope?

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**6.** How can a solution and a colloid be distinguished with the naked eye?

[illegible]

7. How could you improve the protocol for this lab?

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on its right side, suggesting it's resting on a surface.