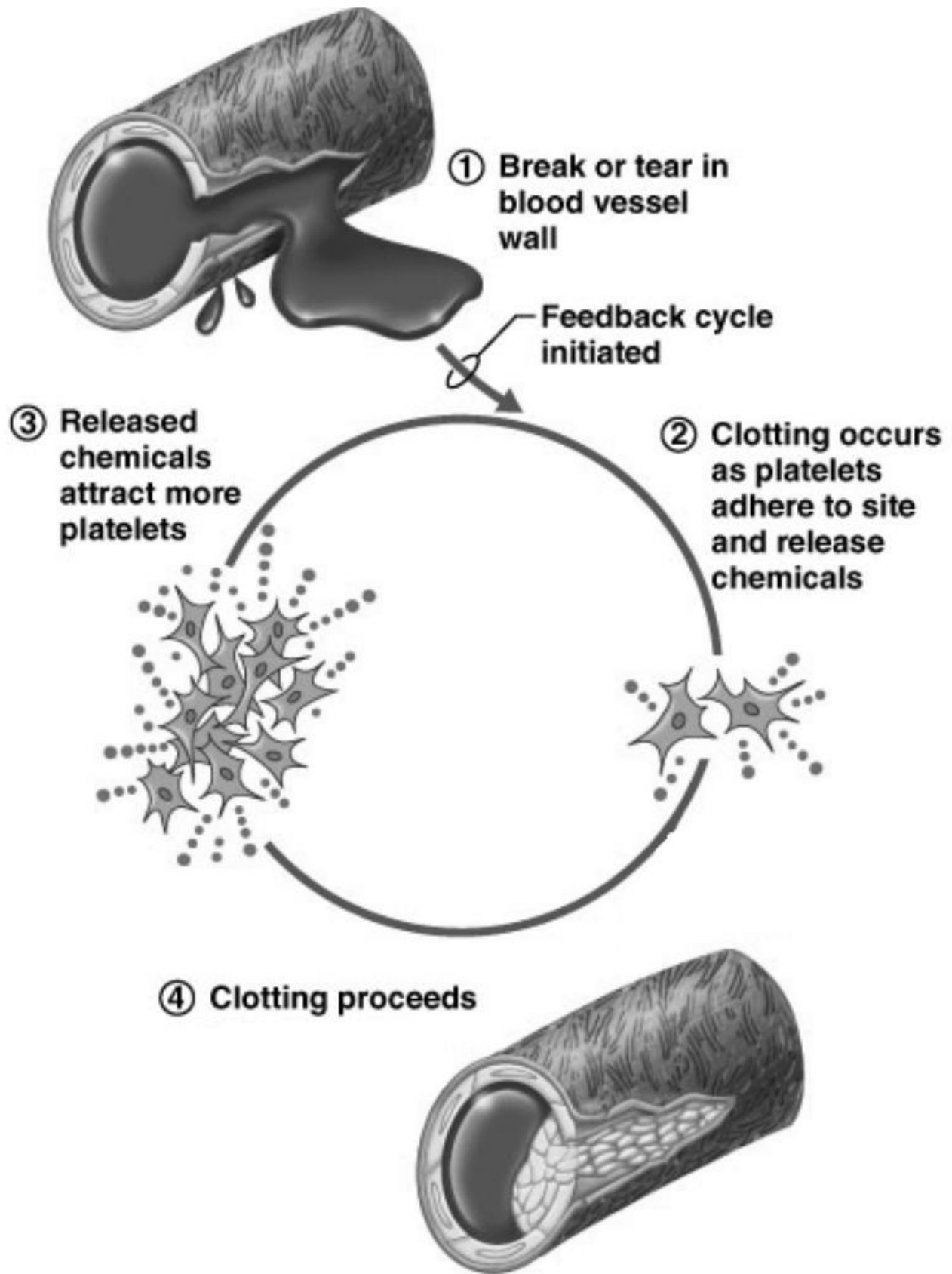
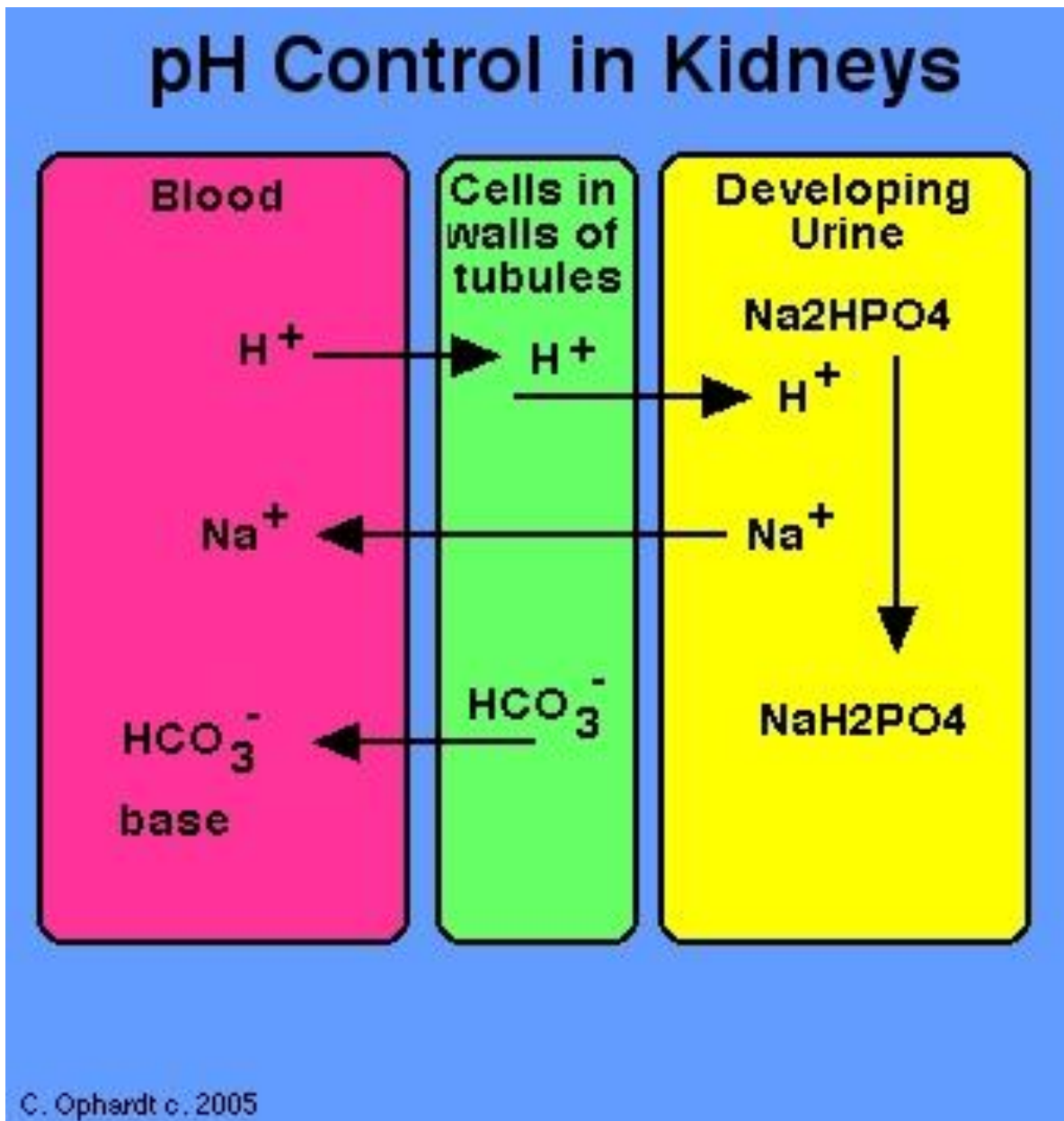


**Feedback Mechanisms Inquiry Activity
Station 1**

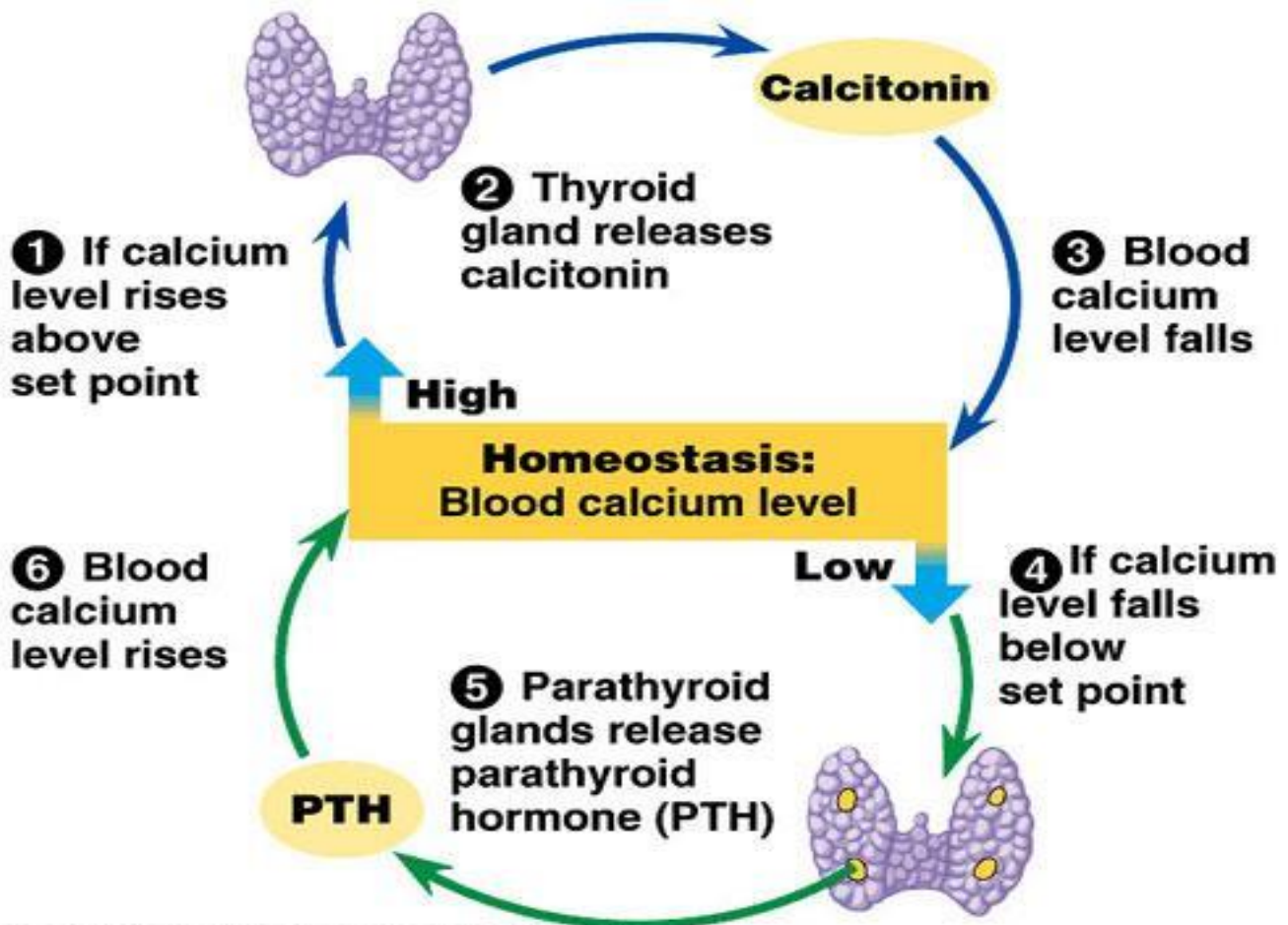


Feedback Mechanisms Inquiry Activity
Station 2



When blood pH levels fall below a set point, the kidneys collect and remove more H^+ (hydrogen ions) from the blood, thus bring the blood pH levels back to normal.

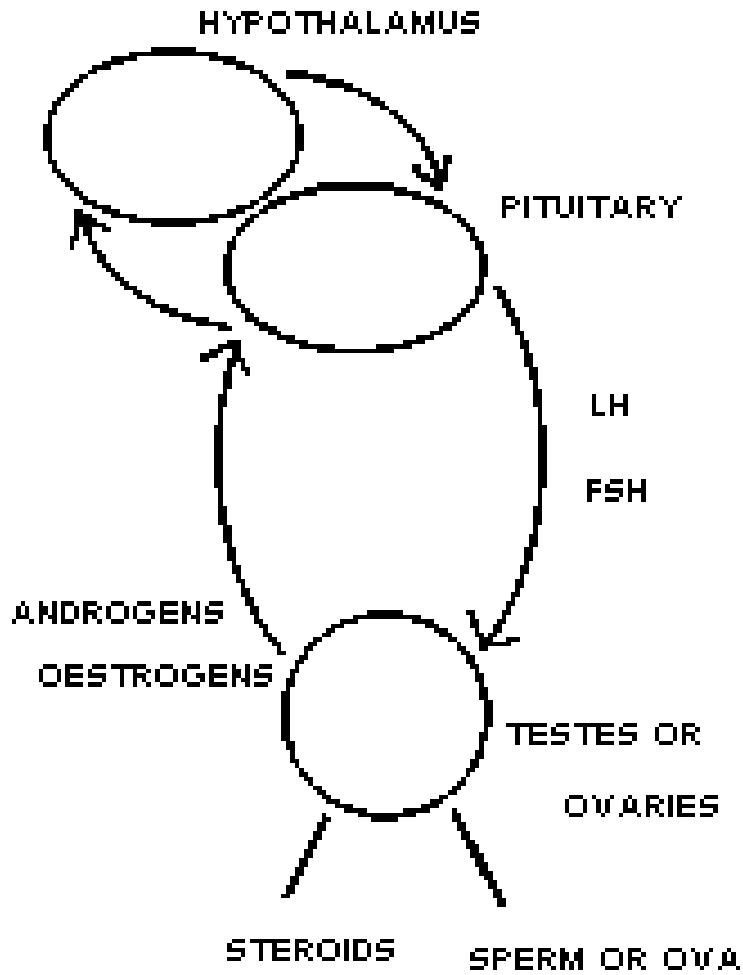
Feedback Mechanisms Inquiry Activity
Station 3



Copyright © Pearson Education, Inc., publishing as Benjamin Cummings.

When blood calcium levels rise above a set point (hypercalcemia) specialized cells in the thyroid secrete a hormone called calcitonin. Calcitonin causes specialized cells in bone tissue to take calcium out of the blood and store it in bone tissue.

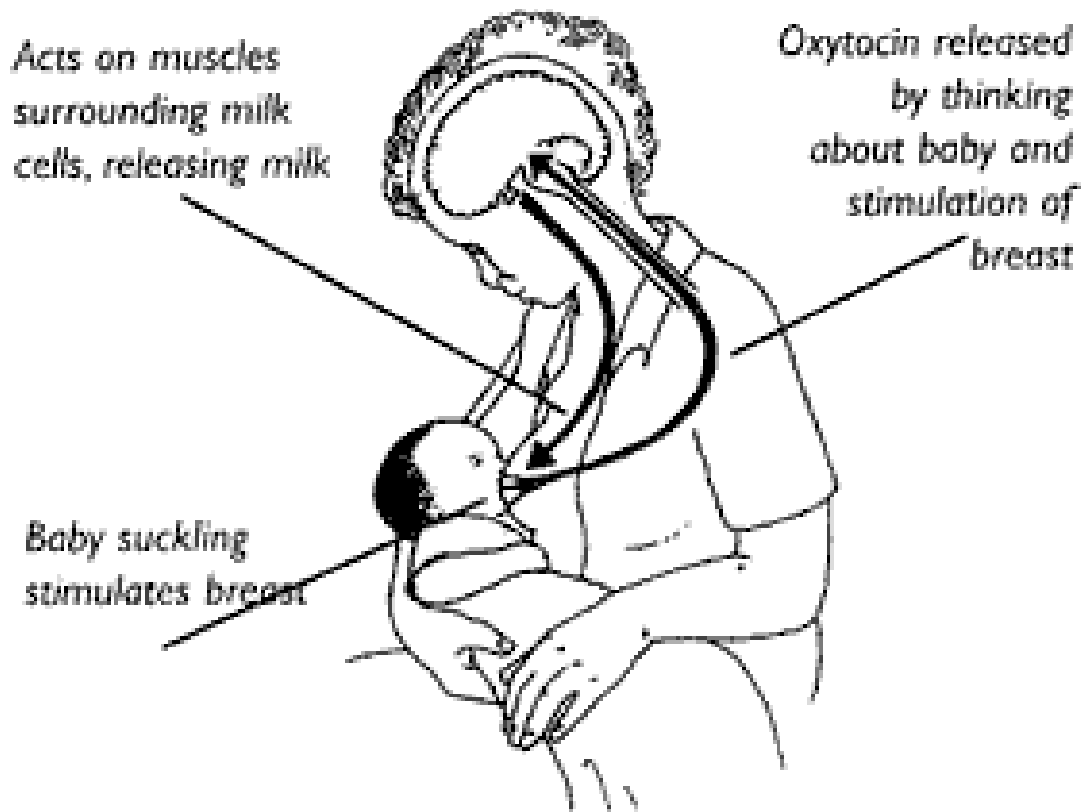
**Feedback Mechanisms Inquiry Activity
Station 4**



The female hormone estrogen triggers the release of the luteinizing hormone (LH); increased production of LH increases the production and release of estrogen.

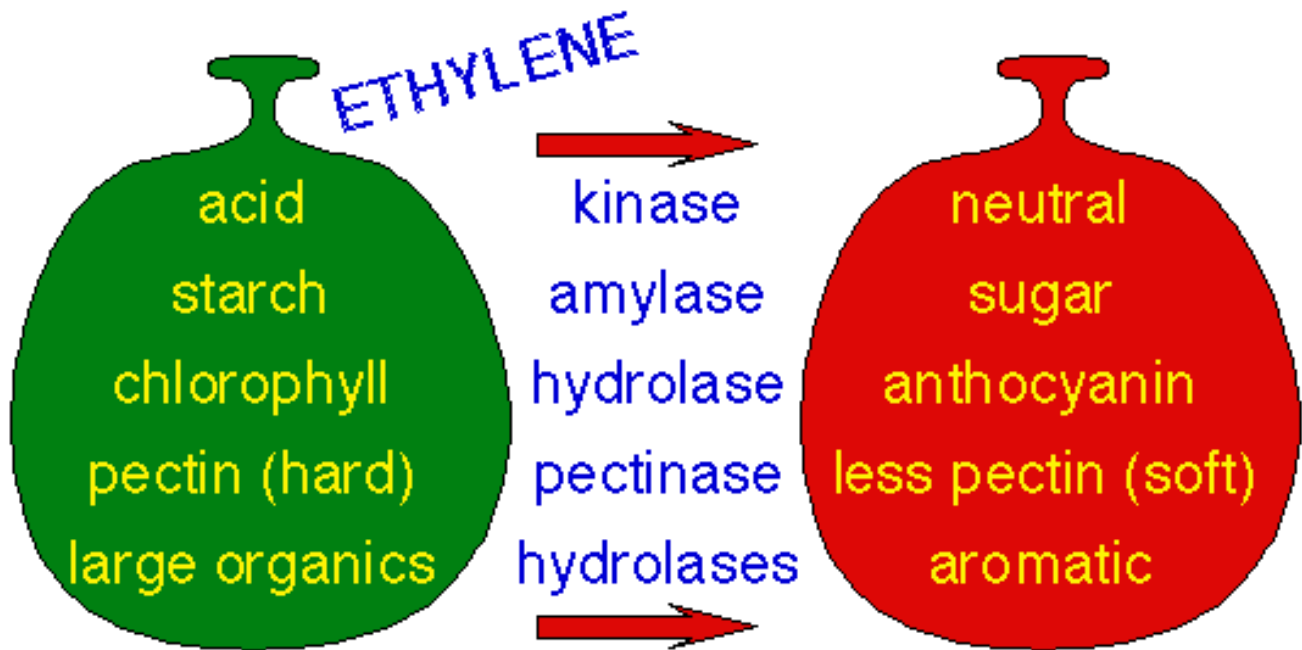
Feedback Mechanisms Inquiry Activity
Station 5

Oxytocin - delivers milk



A baby begins to nurse her mother's breast and a few drops of milk are released. This encourages the baby and releases a hormone in the mother which further stimulates the release of milk. The hungry baby continues to nurse, stimulating more milk release until she stops.

Feedback Mechanisms Inquiry Activity
Station 6



A ripening apple releases the volatile plant hormone ethylene. Ethylene accelerates the ripening of unripe fruit in its vicinity so nearby fruit also ripens, releasing more ethylene. All the fruit quickly becomes ripe together.

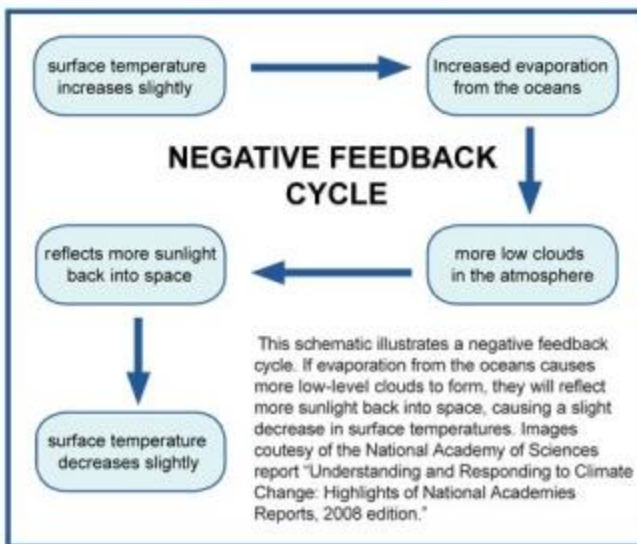
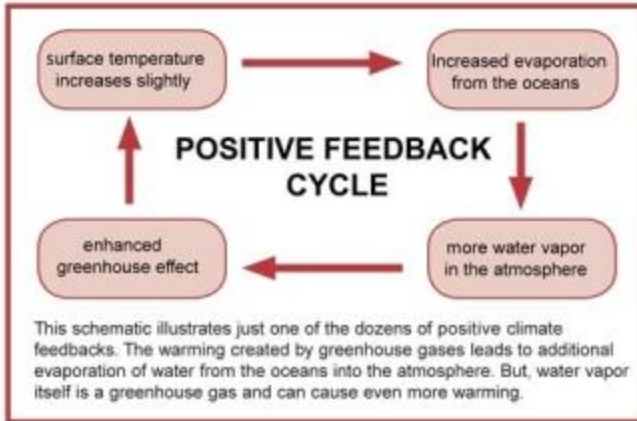
Feedback Mechanisms Inquiry Activity

Directions: There are six (6) feedback loops that will be presented. For each feedback loop, you will describe the nature of the loop, identify the disruption, document the effects, and classify the loop as being either a positive or negative feedback loop. Fill in the table below while you read each station. You will have approximately 10 minutes per station.

Station # and Name	Summarize what occurs in the loop	What is the disruption/ stimulus/trigger?	What is/are the effects of the disruption?	Is this a + or - feedback loop?	Why is it a + or - feedback loop?
1					
2					
3					
4					
5					
6					

Analysis: Answer the questions below using complete sentences.

1) Global warming is a process in which the Earth becomes warmer because greenhouse gases trap reflected solar radiation. Scientists are unsure about the effects of global warming. Illustrated below are two possible outcomes for global warming: one a positive feedback loop and the other is a negative feedback loop. Read each feedback loop and identify the loop that you believe will most likely occur. Why do you think this loop will occur? What is the evidence for this decision?



2) Create another feedback loop (positive or negative) that may occur with the increase in surface temperatures on Earth. Diagram the cycle and then identify if the loop you have made is positive or negative. Why?