

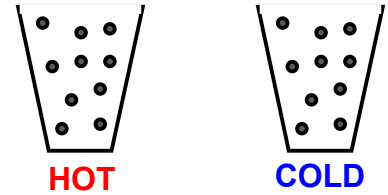
Questions for Geology 8T quiz #10 – Be prepared for any of these four questions, however, I will only ask you two of them.

Here are the potential questions (I will ask you two of these):

1. You have two containers open to the atmosphere sitting next to each other, as shown to the right. Air particles shown within each container also surround each container.



Now imagine that one container is set on something hot and the other on something cold. What will happen to the particles?



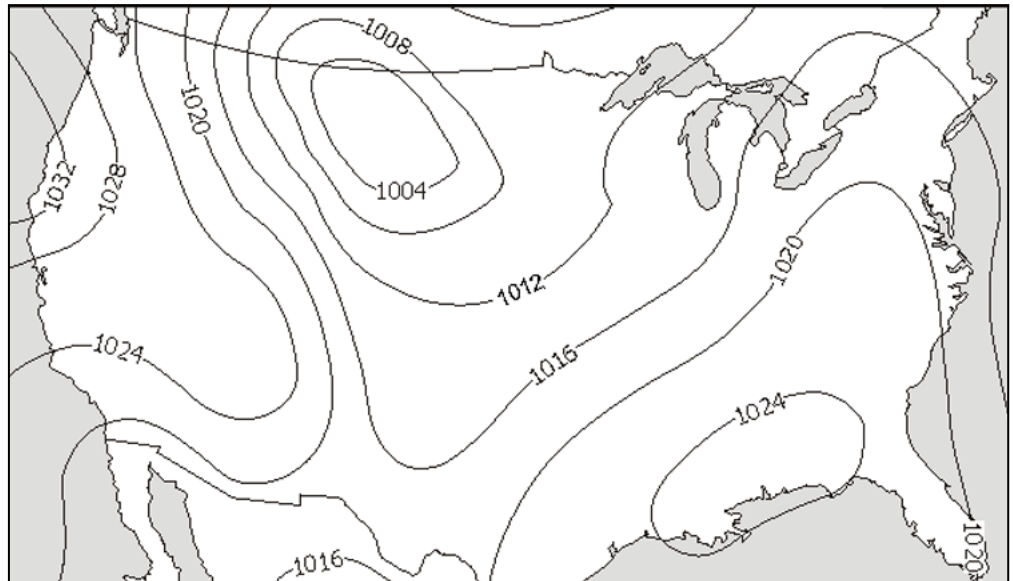
Now suppose that you were small enough to stand inside each container. What kind of air pressure would be present at the bottom of each container? Explain your reasoning.

2. There are two high pressure cells and one low pressure cell on this map.

Label the **highs** (H) & the **low** (L).

Ignoring the Coriolis effect, **show the wind directions on this map.**

What rule did you use to determine the direction of the wind?

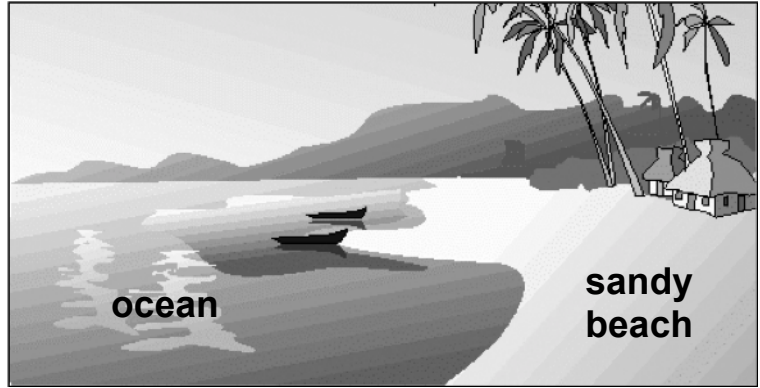


Where is the wind moving the fastest on this map and how do you know?

Label the most likely location on this map for clouds to form.

3. You are on a day trip to the beach shown below.

- a. Which would be warmer: the sandy **beach** or the ocean **water** (*circle one*)?
- b. Where would the air be denser: above the **ocean** or the **beach** (*circle one*)? **Explain your reasoning – what are the air particles doing in each location?**



- c. Where would the atmospheric pressure be the lowest: above the **ocean** or the **beach** (*circle one*)? **Explain your reasoning:**

- d. A breeze is blowing as you stand at the water's edge. **Put an arrow on this map showing the direction of the wind.** State the rule that you used to determine wind direction:

4. Clouds consist of (are made of): _____

Name the process that leads to cloud formation: _____

How does the process you named above lead to cloud formation? Start your explanation with air particles near the Earth's surface, and explain what happens that eventually leads to cloud formation.