INTRODUCTORY ACTIVITY: Where are Volcanoes Located?

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Objective: Learners will analyze maps to analyze the distribution of volcanoes and volcanic rocks across the country.

Introduction: The United States is home to a diverse range of volcanoes and volcanic landscapes which are appreciated as natural wonders, and which also hold significant scientific importance. Studying them helps us understand fundamental geological processes and their potential effects. The National Park Service (NPS) has 94 parks that contain volcanoes, evidence of volcanic activity, or volcanic deposits, which allows for preservation of these areas so they can be studied and monitored, while still being accessible to the public.

Have learners:

1. Study the map of volcanoes around the world, then discuss the following questions:
   - **a.** Describe any patterns or trends that you see.
   - **b.** Why do you think there are volcanoes in these areas?
2. Study a map of volcanic rocks found in the United States.
   - **a.** Identify areas that have volcanic rock but not active volcanoes.
   - **b.** What might this tell you about past volcanic activity in these areas?
3. Examine NPS units with volcanoes or evidence of volcanic activity. NPS units are ranked as follows:
   - **a.** Mark on the U.S. map where you might expect to find a park from each category. Explain your reasoning.
   - **b.** Explore the **NPS Master List of parks with volcanic features**:
     - Read about the park categories: Primary Resources, High Significance, and Moderate Significance.
     - Look through the table to locate a park from each category.
     - Explore the list of links below the table for each of the parks you chose.
     - Use images or descriptions from the websites to describe why each park was put into a specific category.
     - Discuss each of the categories and how similar/different the parks are in each within groups or as a class.
   - **c.** Why do you think so many volcanoes and volcanic features are within NPS Units?

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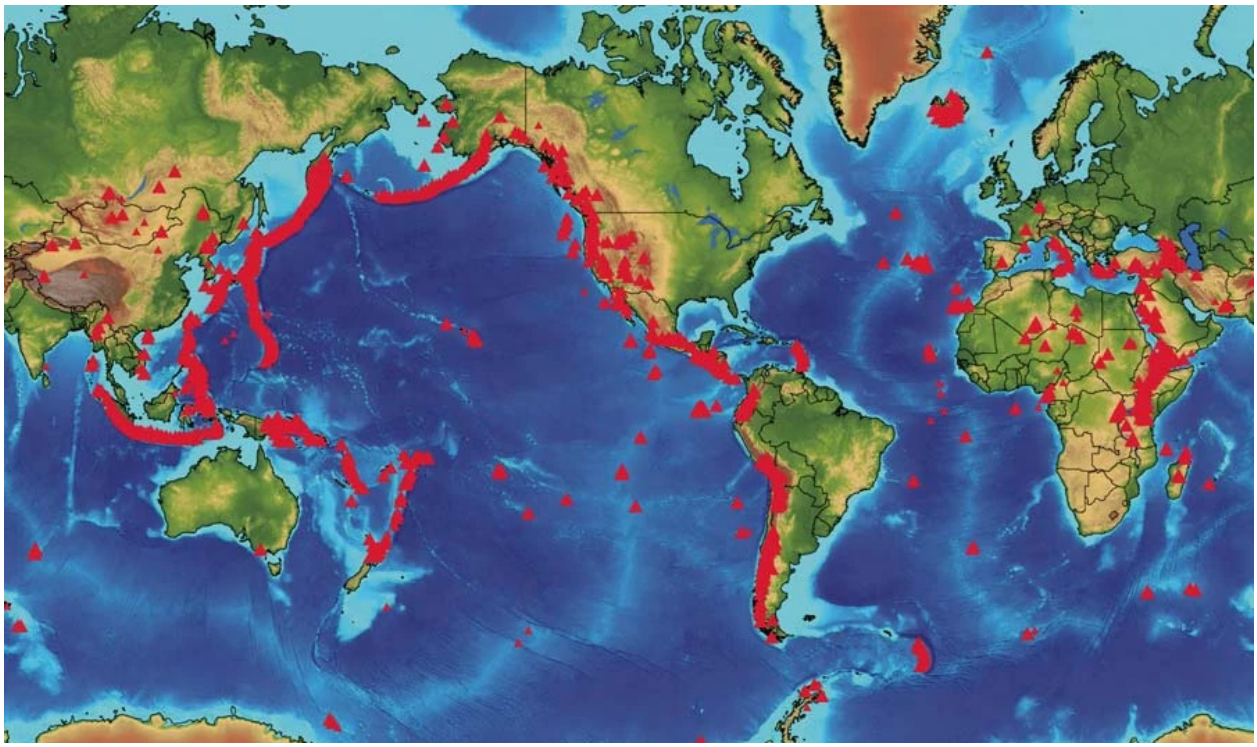
The map below shows the location of volcanoes on Earth that are active and above sea level.



Credit: NPS, **Volcano Monitoring**

- Describe any patterns you see.

- Why do you think volcanoes are found in these locations?

The map below shows the locations of volcanic rocks in the United States.

Source: USGS

- Look back at the map showing the locations of volcanoes. Identify any volcanic rocks that are not near active volcanoes. How do you think these rocks got in these locations?