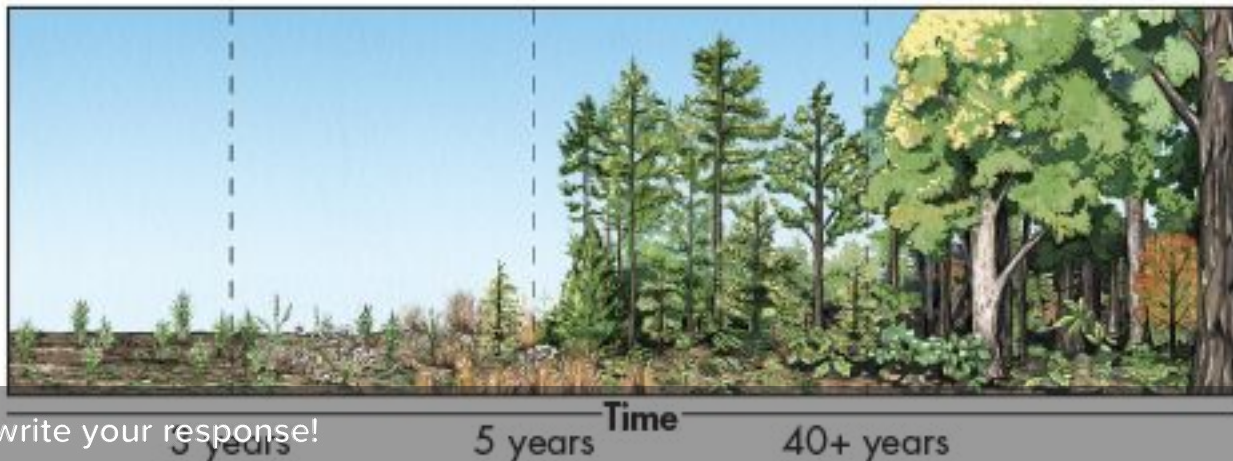
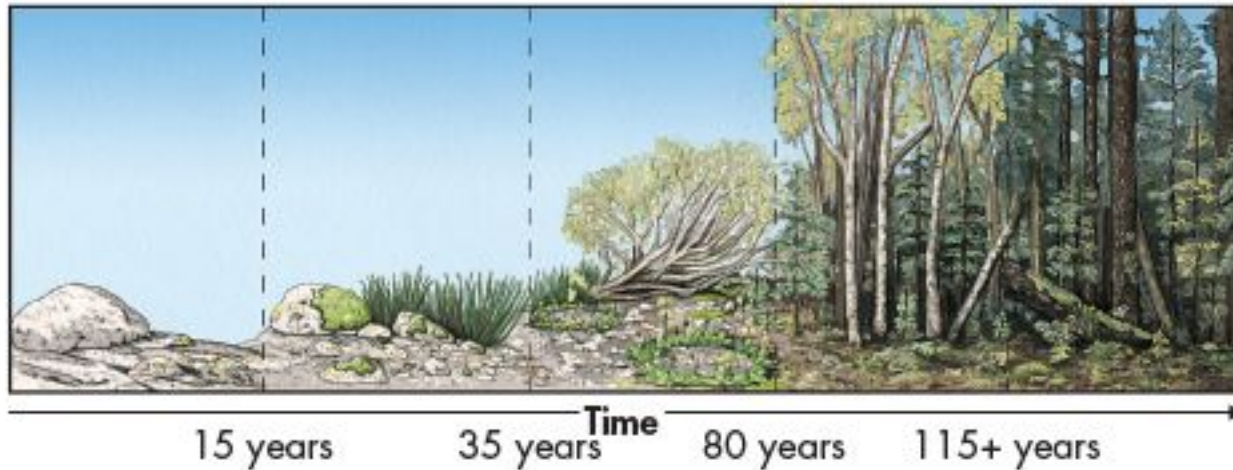


Succession

THINK – PAIR – SHARE

What differences do you notice between the following two environments?



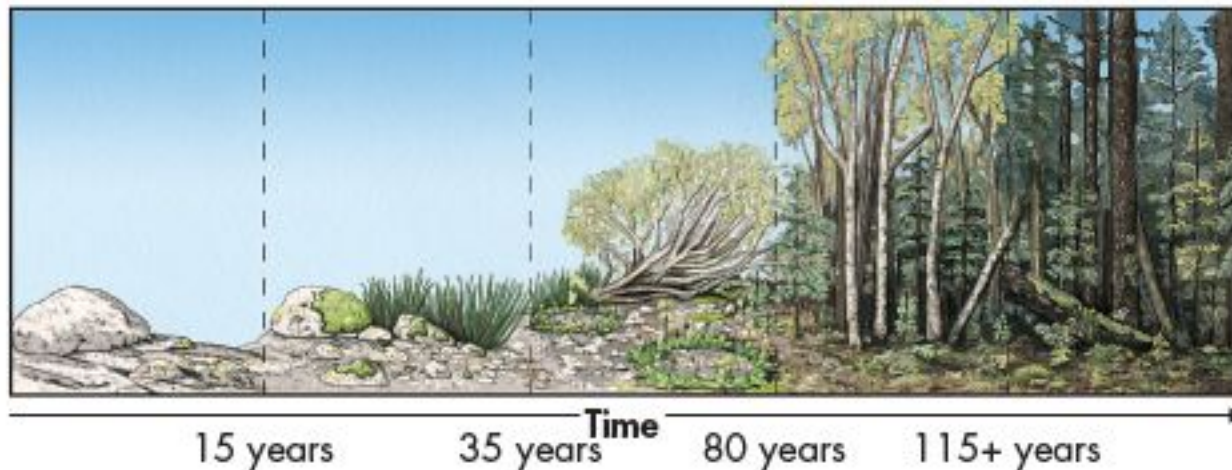
Students, write your response!

Ecological Succession

- Ecosystems change over time, especially after disturbances, as some populations die out and new species move in.
- Ecological succession is a **series of predictable changes that occur in a community over time.**
- Over the course of succession, **the number of different populations present typically increases.**

Primary Succession

- Primary succession occurs **when a disturbance leaves no remnants of an older community.**
 - ✓ It occurs on **bare rock surfaces where NO soil exists.**



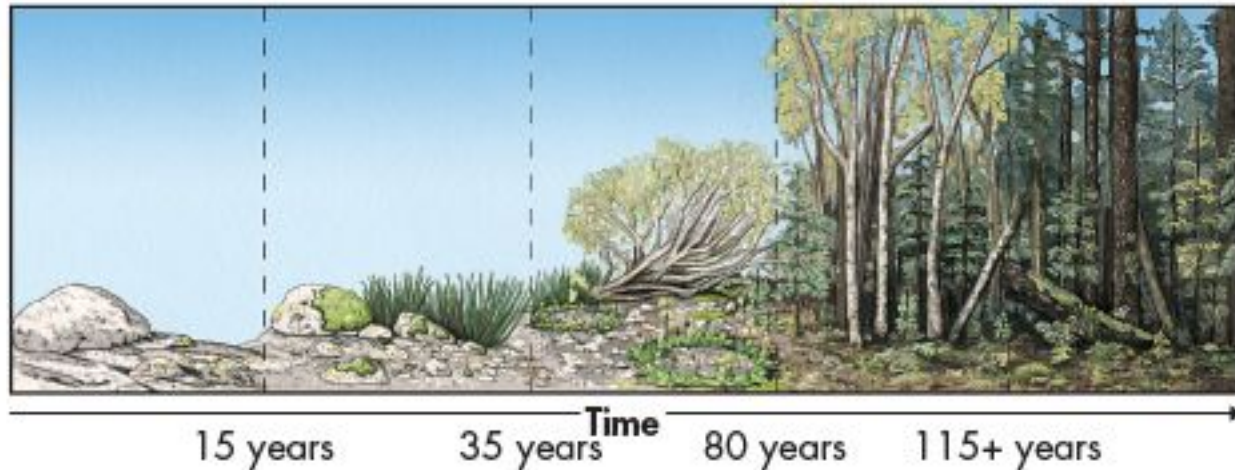
What type of disturbances could lead to primary succession?



Students, write your response!

Primary Succession

- Primary succession occurs **when a disturbance leaves no remnants of an older community.**
 - ✓ It occurs on **bare rock surfaces where NO soil exists.**

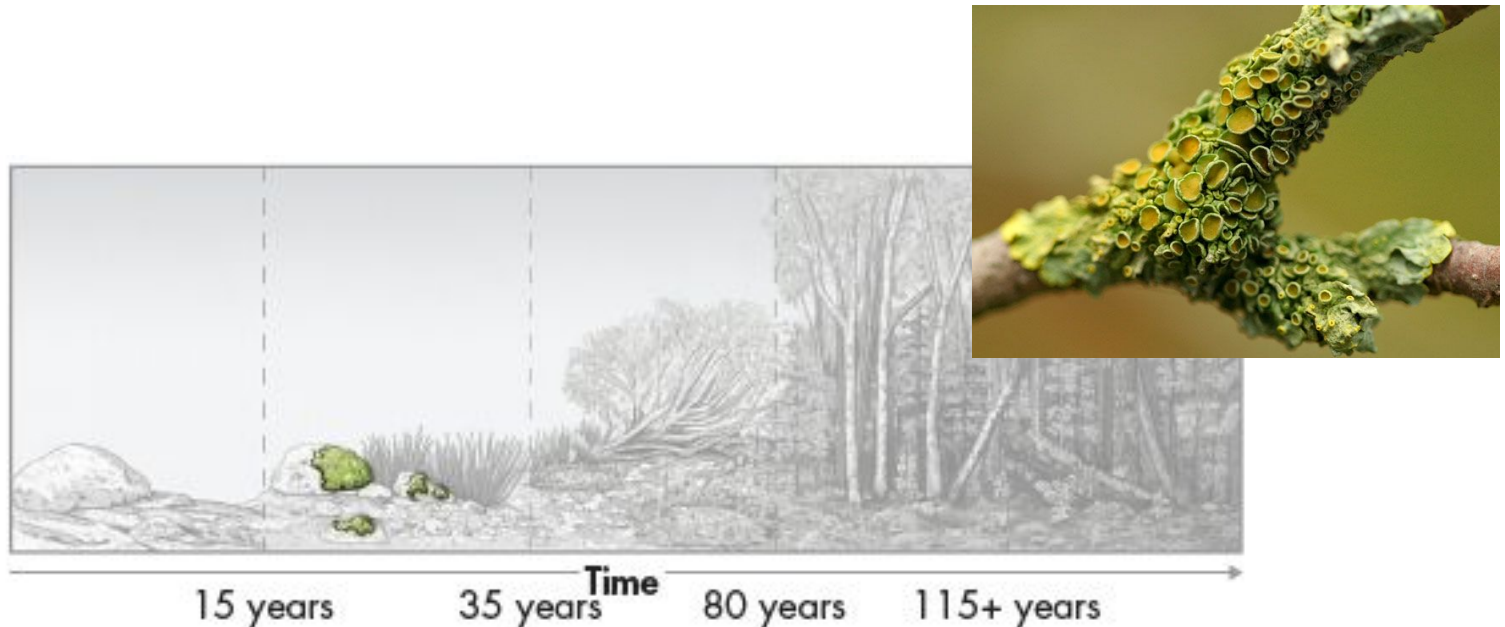


Examples:

- ✓ Retreating Glacier
- ✓ Volcanic Eruption

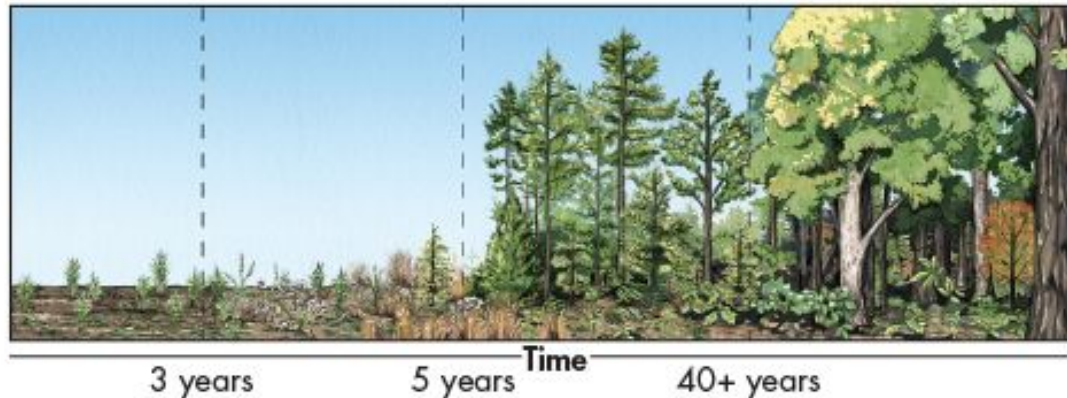
Primary Succession

- The first species to colonize barren areas are called **pioneer species**.
- One ecological pioneer that grows on bare rock is ***lichen*** - a **mutualistic symbiosis** between a fungus and an alga.



Secondary Succession

- Secondary succession occurs **when a disturbance changes a community without completely destroying it.**
- ✓ Secondary succession proceeds **faster** than primary succession, in part because **soil survives the disturbance.**



What type of disturbances could lead to secondary succession?



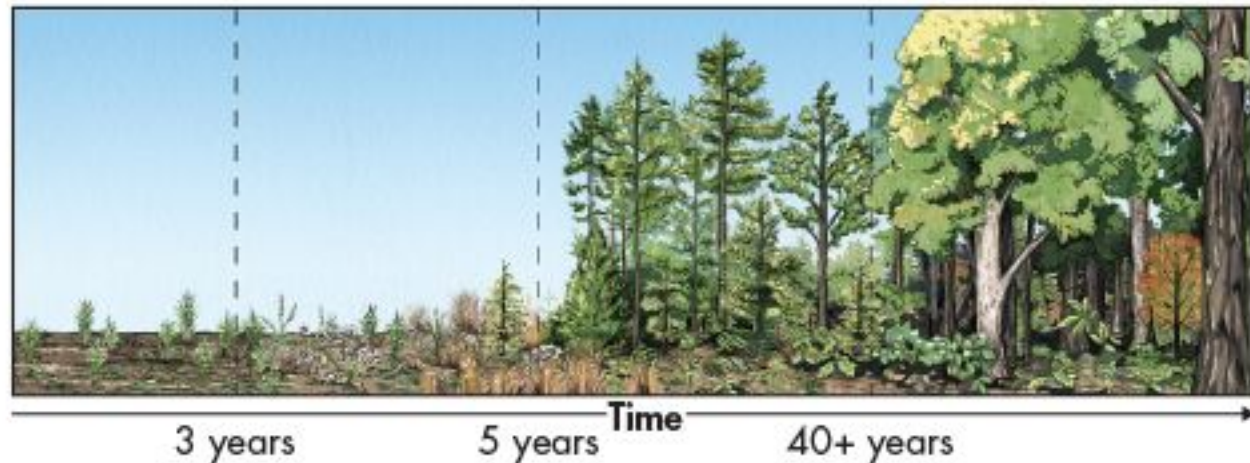
Students, write your response!

Secondary Succession

- Secondary succession occurs **when a disturbance changes a community without completely destroying it.**
- ✓ Secondary succession proceeds **faster** than primary succession, in part because **soil survives the disturbance.**

Examples:

- ✓ Wildfire
- ✓ Hurricane
- ✓ Logging
- ✓ Farming



Climax Communities

- A climax community is a **mature, relatively stable ecosystem.**



Succession After Disturbances

- Secondary succession in healthy ecosystems following natural disturbances **often reproduces the original climax community.**



Succession After Disturbances

- Do you think all ecosystems can recover from natural disturbances?
Why or why not?



Students, write your response!

Succession After Human-Caused Disturbances

- Ecosystems **may or may not recover** from extensive human-caused disturbances.
- Clearing and farming of tropical rainforests, for example, can change the microclimate and soil enough to prevent regrowth of the original community.

Succession Video

