

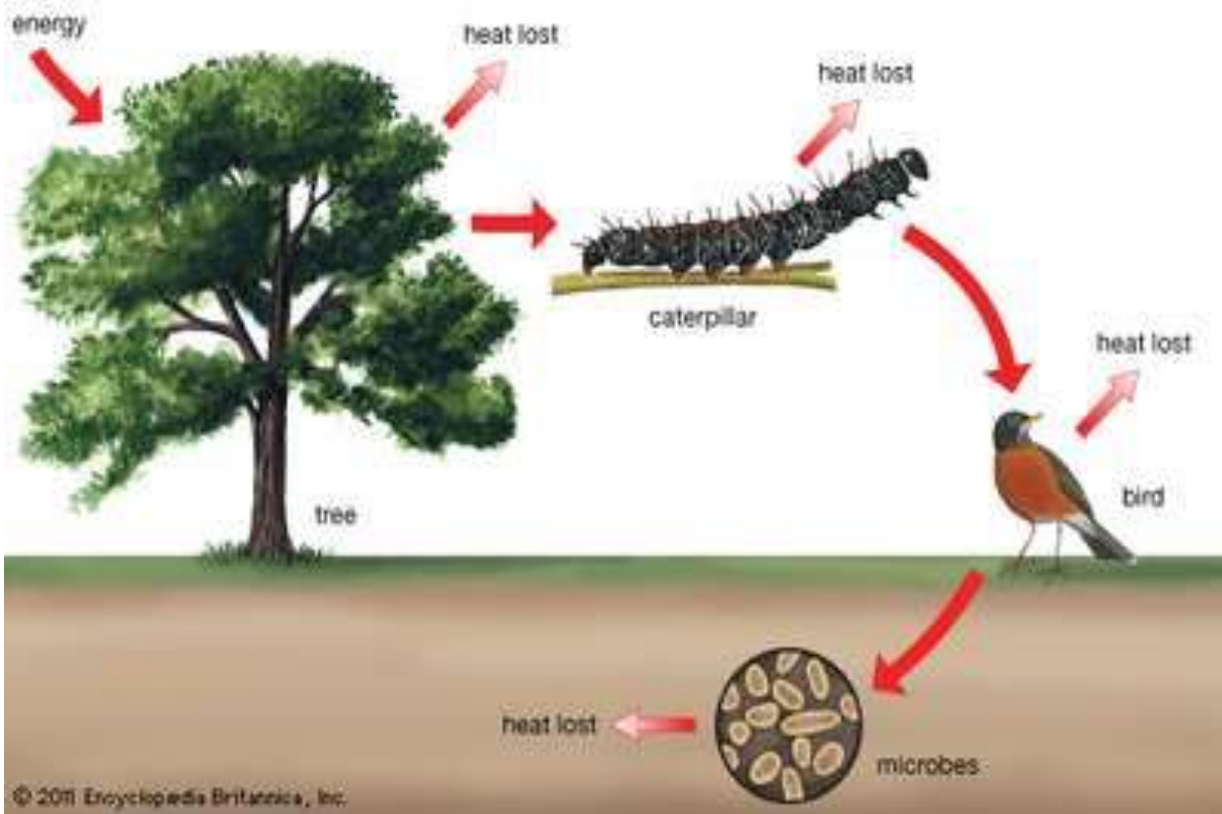
# Changes in community



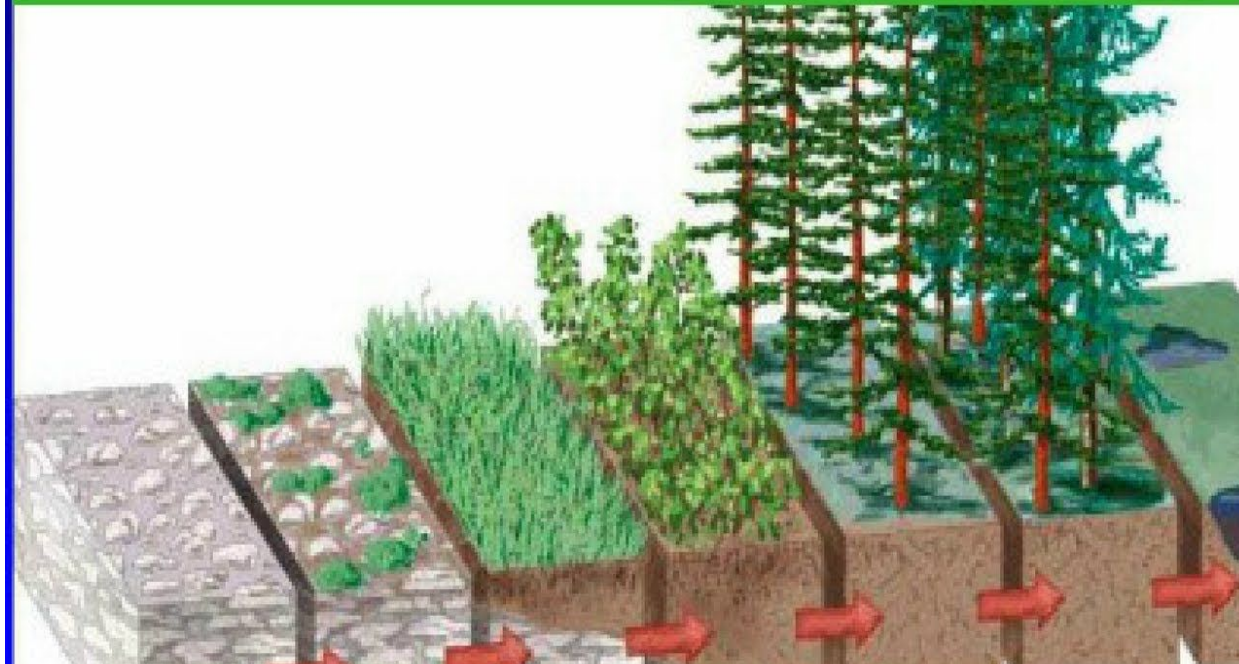
- describe the process of ecological succession

- **Community** is a group of interacting species living in the same location.
- **Ecological succession** is the process by which ecosystems change and develop over time. During succession plants, animals and other organism species are replaced with different species.

Energy transfer and heat loss along a food chain

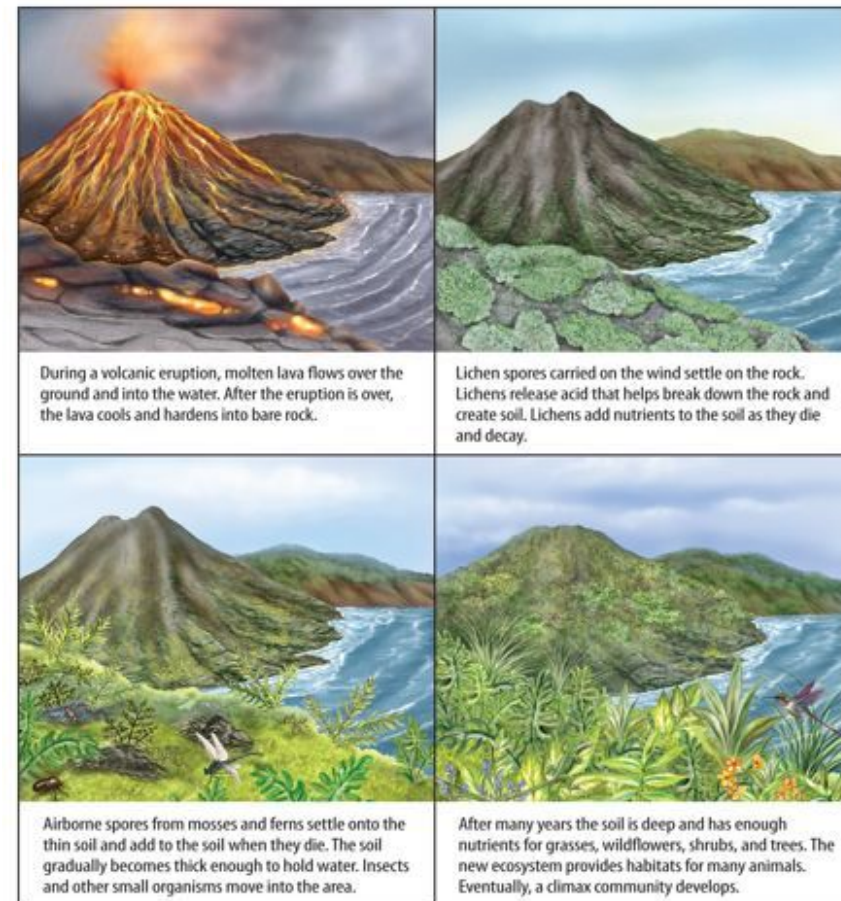
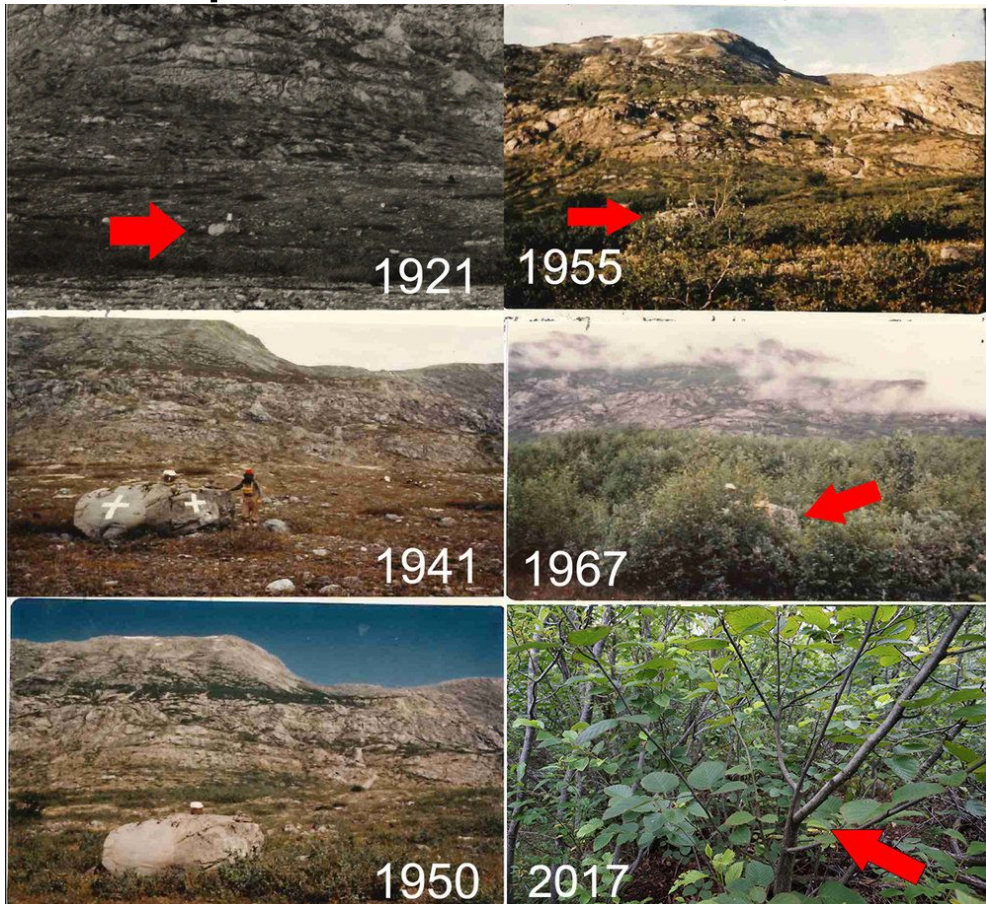


## Ecological Succession



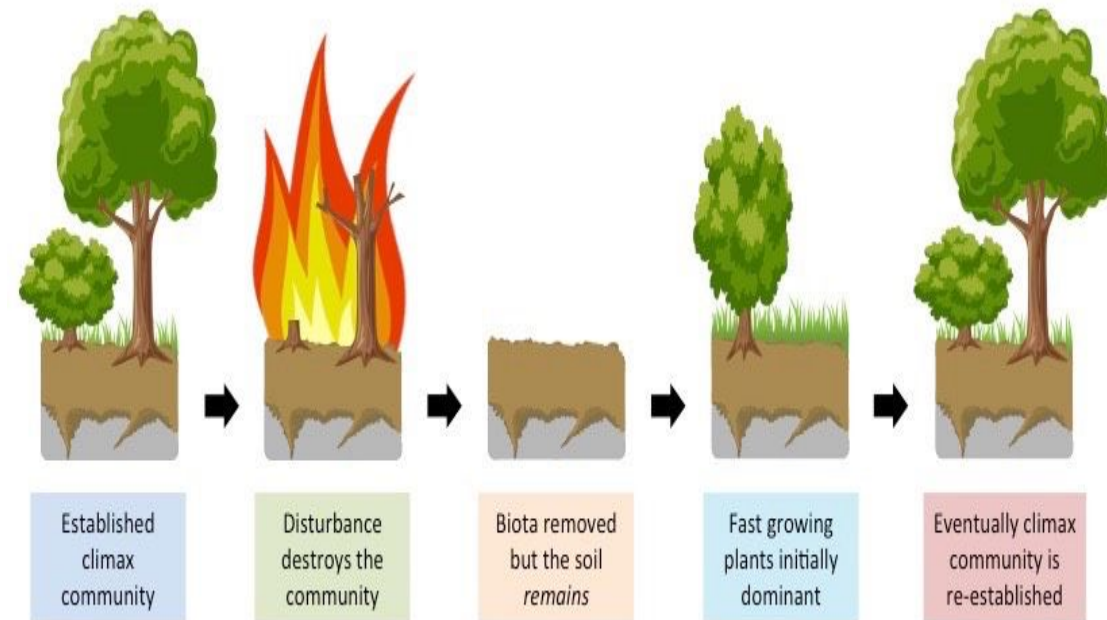
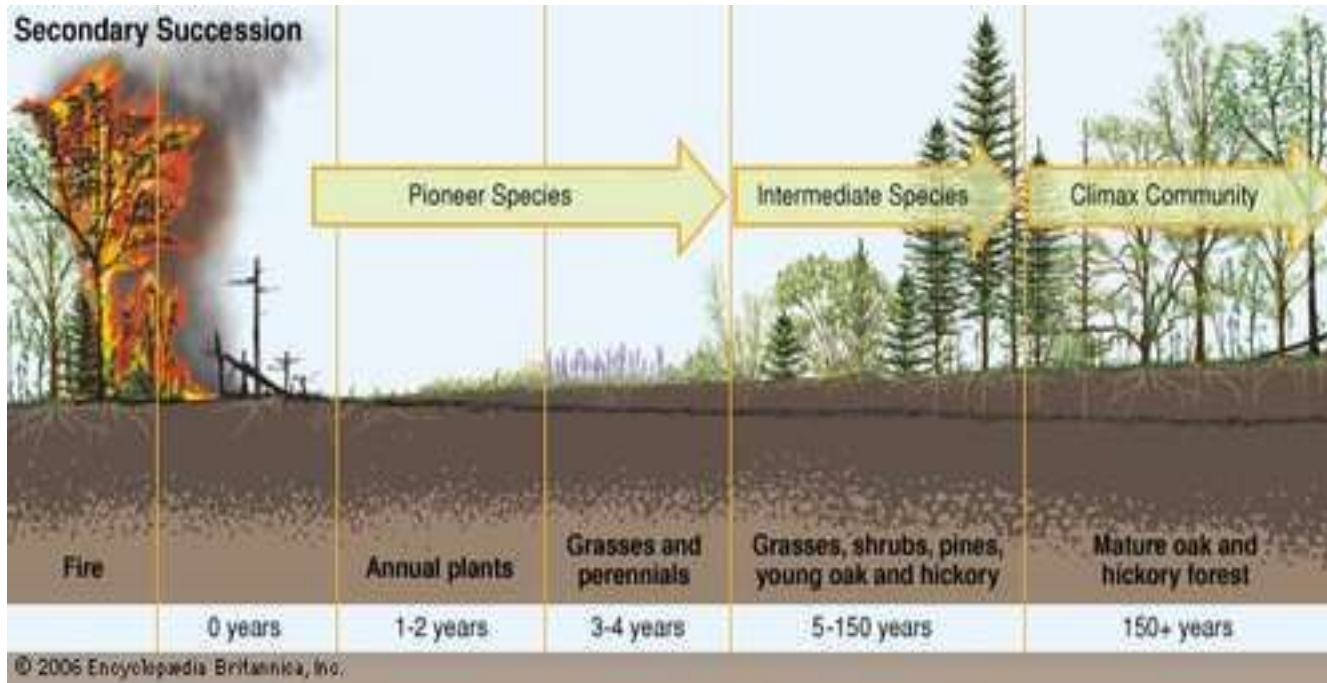
# Types of ecological succession

- **Primary succession** occurs in areas where no living organisms lived before.
- Primary succession would take place on new volcanic islands (вулканикалық аралдар/вулканические острова), bare rocks (жартаc жыныстары /голые скалы) and other places.



# Types of ecological succession

- **Secondary succession** occurs on ready soil or a place where other living organisms lived before.
- Secondary succession occurs after fires, floods (су тасқыны/ наводнение), drought (құрғақшылық/ засуха), and some human activities.



# Fact

- Fire gives life too. Jack pine is a plant which grows in Northern America. Its cones only open and spread seeds after forest fires.



# Questions

- A forest was washed away by flood. It is primary or secondary are of succession?
- Predict how long it will take for forest to regrow?
- A new volcanic island is formed after volcanic eruption. Write step by step processes occurring on this island during succession.