When it comes to relative-age dating in geology, there are five key principles that help scientists determine the sequence of events in Earth's history: 1.**Principle of Cross-Cutting Relationships**: When a geological feature cuts across another rock layer, it is younger than the rock it cuts through.By applying these principles, geologists can establish the relative ages of rock layers and reconstruct the sequence of events that have shaped Earth's surface over time.**Principle of Inclusions**: This principle states that any rock fragments included in another rock layer must be older than the rock they are found in. For instance, if you find pieces of an older rock embedded in a younger rock layer, it indicates that .the older rock existed before the younger one formed.2.3.4.5