Mass Extinctions

Mass extinction and time of event	Before	What happened	After	% of species lost
End Ordovician Extinction 443 million years ago	Life was found in the oceans. Marine invertebrates thrived.	Supercontinent Gondwanaland moved toward the south pole. This caused massive uplift and weathering of the continent along with creation of ice sheets.	A much cooler planet and lower sea levels resulted in extinction of marine invertebrates; when sea levels eventually rose, the ocean chemistry was hostile to many living things.	85
Late Devonian Extinction 359 million years ago	Oceans had diverse fish while four-legged amphibians colonized land.	Rapid growth of land plants removed carbon dioxide from the atmosphere and promoted continental weathering.	The temperature of the planet cooled. Massive nutrient runoff from decaying land plants caused ocean algae blooms. Most corals, and other marine invertebrates, died out.	75
End Permian Extinction 251 million years ago	Reptile-like animals lived in lush fern and conifer forests.	Massive volcanic activity spewed lava over 720 cubic miles.	Eruptions ejected massive amounts of heat-trapping gases into the atmosphere. This raised the global temperature and changed ocean chemistry. The ocean water at the equator was over 100°F.	96
Triassic Extinction 200 million years ago	Ancestors of dinosaurs and complex coral reefs existed.	Extensive underwater volcanic activity	Massive greenhouse gases released by an enormous area of lava ushered in warming of the planet and changed the ocean chemistry.	80
Cretaceous Extinction 65 million years ago	Dinosaurs, mammals, birds, and flowering plants were on all continents.	Asteroid impact	Heat and debris from the impact sparked fires that burned over 1,000 miles. Dust and particles were launched into the atmosphere blocking sunlight and cooling the planet. Photosynthesis was prevented by extended darkness leading to plant extinctions. Extensive volcanic activity was also triggered by the impact, leading to global warming later.	76

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