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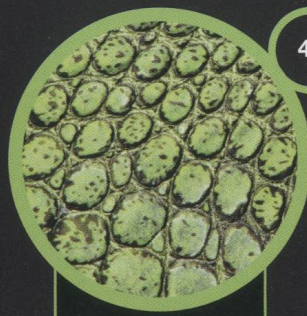
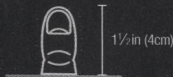
After the Earth's formation 4.56 billion years ago, a unique series of events and geological processes transformed it into a planet capable of sustaining life.

YOUNG EARTH

- 12 Exploring Earth's Past
- 14 The Origin of the Earth
- 16 The First 500 Million Years
- 20 Plate Tectonics
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Scales and sizes

Most of the profiles in *Life on Earth* and *The Rise of Humans* include a scale drawing to indicate the size (usually the maximum) of the animals or plants being described. In the plant entries, scale drawings are only included where there is reliable and easily accessible reference for reconstruction of the whole plant.



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The earliest-known form of life on Earth appeared about 3.5 billion years ago. From trilobites to tree ferns, hadrosaurs to hominids, this catalog profiles hundreds of fascinating species, as they evolved.

LIFE ON EARTH



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Archean

52 Early life



54

Proterozoic

58 Microscopic life
60 Invertebrates



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Cambrian

68 Microscopic life
70 Invertebrates
78 Vertebrates



80

Ordovician

84 Invertebrates
92 Vertebrates



94

Silurian

98 Plants
100 Invertebrates
106 Vertebrates



108

Devonian

112 Plants
122 Invertebrates
128 Vertebrates



140

Carboniferous

144 Plants
154 Invertebrates
162 Vertebrates

contents



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The story of human evolution stretches back seven million years and features an array of species of which our own, *Homo sapiens*, is the sole survivor.

THE RISE OF THE HUMANS

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Permian



- 174 Plants
- 178 Invertebrates
- 182 Vertebrates

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Triassic



- 198 Plants
- 202 Invertebrates
- 206 Vertebrates

222

Jurassic



- 226 Plants
- 234 Invertebrates
- 244 Vertebrates

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Cretaceous



- 284 Plants
- 296 Invertebrates
- 304 Vertebrates

358

Paleogene



- 362 Plants
- 368 Invertebrates
- 374 Vertebrates

386

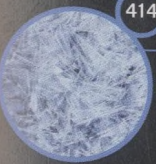
Neogene



- 390 Plants
- 396 Invertebrates
- 404 Vertebrates

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Quaternary



- 418 Plants
- 424 Invertebrates
- 430 Vertebrates

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Human Relatives

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Human Ancestors

- 446 Sahelanthropus tchadensis
- Orrorin tugenensis
- 447 Bipedalism
- 448 Ardipithecus ramidus
- Ardipithecus kadabba
- Australopithecus garhi
- Australopithecus anamensis
- Australopithecus bahrelghazali
- 449 Australopithecus africanus
- Kenyanthropus platyops
- 450 Australopithecus afarensis
- 452 Paranthropus aethiopicus
- Paranthropus robustus
- 453 Paranthropus boisei

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Origins of Modern Humans

- 454 Homo habilis
- 455 Homo rudolfensis
- 456 Homo ergaster
- 458 First Human Migration
- 460 Homo erectus
- 462 Homo antecessor
- Homo heidelbergensis
- 464 Homo neanderthalensis
- 468 Early Homo sapiens

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European Hunter Gatherers

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Paleolithic Cave Art

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Acknowledgments