






Fossil Frenzy Practice



Match up the dinosaurs with their names.

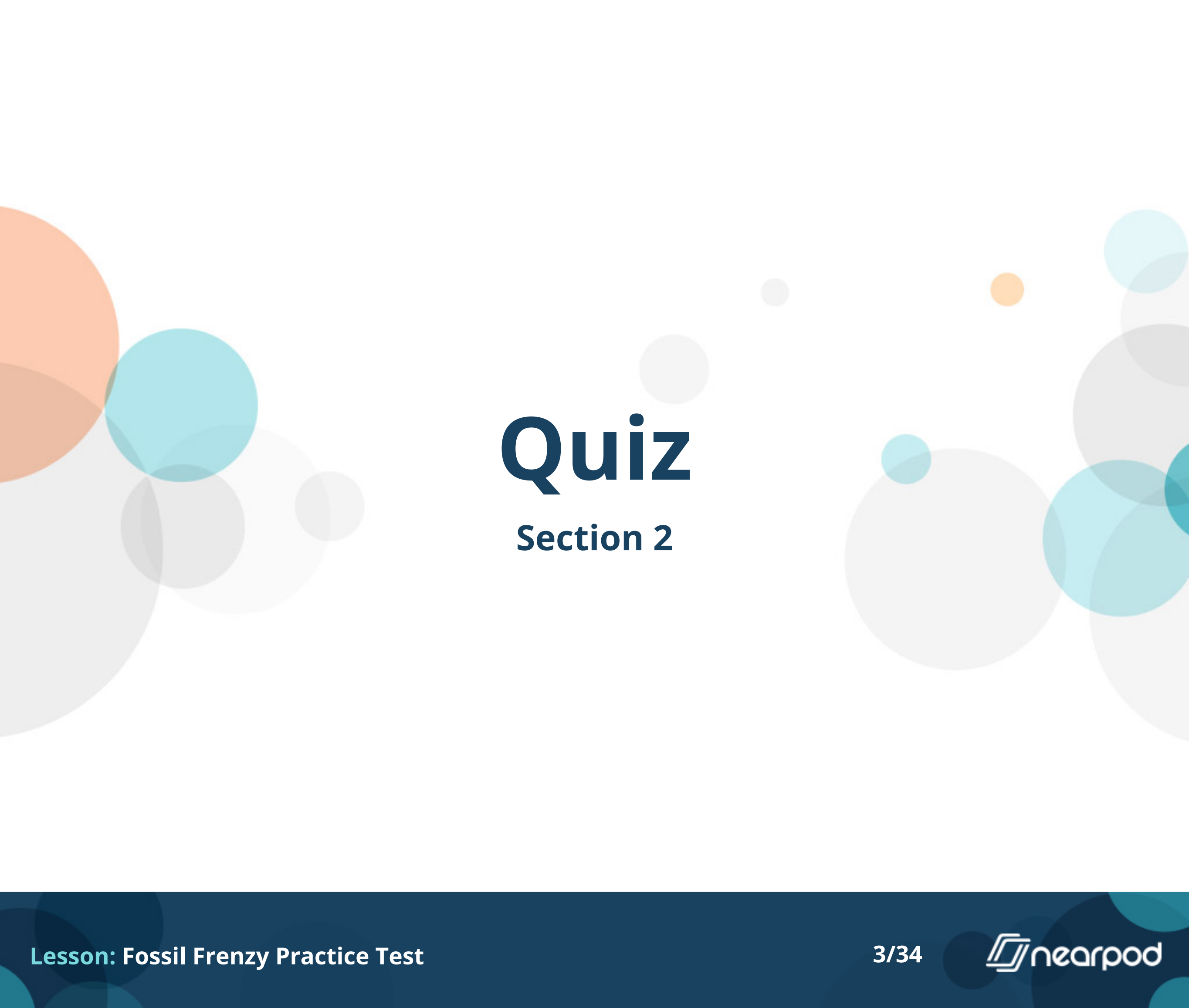
^ Instructions

					
	Parasaurolophus		Coelophysis		

Apple

a

Matching Pairs



Quiz

Section 2



These pictures all show what organism?

- Coral
- Trilobite
- Crustacean
- Brachiopod



What is this a picture of?

- Coral
- Trilobite
- Crustacean
- Brachipod



What is this a picture of?

- Coral
- Trilobite
- Crustacean
- Brachiopod



What is this a picture of?

- Bivalves
- Cephalopods
- Echinoids
- Crustaceans

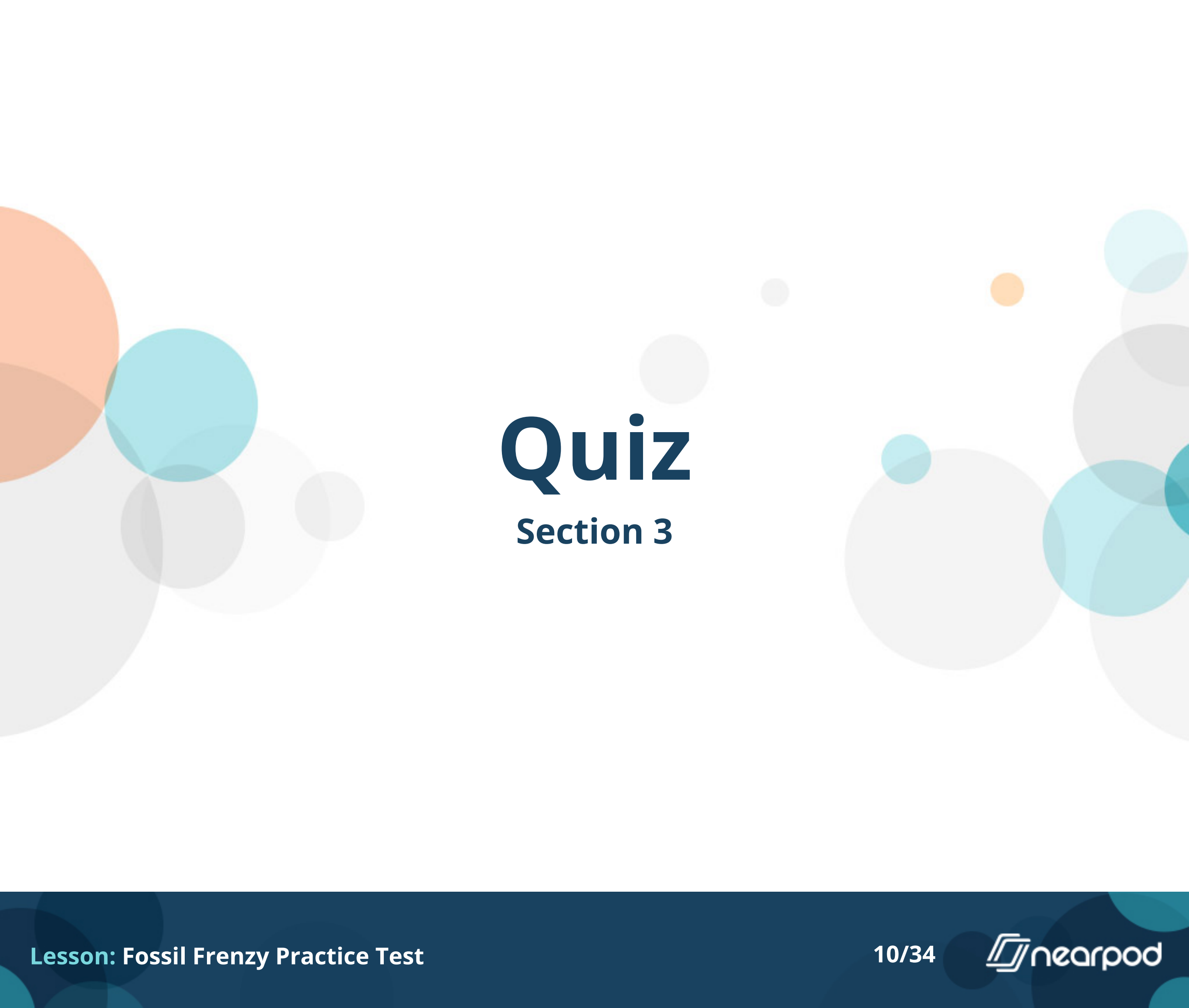


What is this a picture of?

- Bivalves
- Cephalopods
- Echinoids
- Crustaceans

All of the organisms in these pictures lived in what kind of environment?

- terrestrial
- marine
- swamp
- desert



Quiz

Section 3

Period	Approximate Age (Millions of Years Ago)	Key Geological Features	Key Biological Features
Cenozoic	Present - 66	Formation of the modern continents and oceans.	Age of Mammals; Age of Dinosaurs.
	66 - 23	Continental drift; formation of the Isthmus of Panama.	Age of Mammals; Age of Dinosaurs.
	23 - 5	Continental drift; formation of the Isthmus of Panama.	Age of Mammals; Age of Dinosaurs.
	5 - 0	Continental drift; formation of the Isthmus of Panama.	Age of Mammals; Age of Dinosaurs.
Mesozoic	252 - 201	Formation of the supercontinent Pangea.	Age of Reptiles; Age of Mammals.
	201 - 145	Continental drift; formation of the Isthmus of Panama.	Age of Reptiles; Age of Mammals.
	145 - 66	Continental drift; formation of the Isthmus of Panama.	Age of Reptiles; Age of Mammals.
	66 - 252	Continental drift; formation of the Isthmus of Panama.	Age of Reptiles; Age of Mammals.
Paleozoic	541 - 444	Formation of the supercontinent Pangea.	Age of Fish; Age of Reptiles.
	444 - 360	Continental drift; formation of the Isthmus of Panama.	Age of Fish; Age of Reptiles.
	360 - 252	Continental drift; formation of the Isthmus of Panama.	Age of Fish; Age of Reptiles.
	252 - 541	Continental drift; formation of the Isthmus of Panama.	Age of Fish; Age of Reptiles.

Click on the image to make it bigger. How many Eons have there been in time?

- 1
- 2
- 3
- 4

Period	Time (Ma)	Key Events	Key Features
Cenozoic	66.0 - Present	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	23.0 - 2.6	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	2.6 - 0.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	0.0 - 2.6	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	0.0 - 2.6	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
Mesozoic	252.0 - 66.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	66.0 - 252.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	252.0 - 66.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	66.0 - 252.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	252.0 - 66.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
Paleozoic	252.0 - 541.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	541.0 - 252.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	252.0 - 541.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	541.0 - 252.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds
	252.0 - 541.0	Formation of the Isthmus of Panama	Large dinosaurs, grass, modern birds

Click on the image to make it bigger. Dinosaurs were alive during what Era?

- Cenozoic
- Mesozoic
- Paleozoic

Time Scale	Duration	Characteristics	Geological Features
Eon	4.5 billion years	Formation of Earth	Large quantities of iron sulfide
Era	650 million years	Formation of life	Large quantities of iron sulfide
Period	20 million years	Formation of life	Large quantities of iron sulfide
Epoch	100,000 years	Formation of life	Large quantities of iron sulfide

Click on the image to make it bigger. Which division of time is the smallest?

- Eon
- Era
- Period
- Epoch

Period	Approximate Age (Millions of Years Ago)	Key Features	Key Events
Cenozoic	Present - 66	Modern mammals, birds, and flowering plants	Formation of the Isthmus of Panama
	66 - 23	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	23 - 5	Large herbivores, primates	Formation of the Isthmus of Panama
	5 - 0	Modern mammals, birds, and flowering plants	Formation of the Isthmus of Panama
Cretaceous	145 - 100	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	100 - 66	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	66 - 23	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	23 - 5	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
Jurassic	201 - 145	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	145 - 100	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	100 - 66	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	66 - 23	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
Triassic	252 - 201	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	201 - 145	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	145 - 100	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	100 - 66	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
Permian	252 - 201	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	201 - 145	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	145 - 100	Large herbivores, dinosaurs	Deccan Traps volcanic eruption
	100 - 66	Large herbivores, dinosaurs	Deccan Traps volcanic eruption

Click on the image to make it bigger. In which Epoch do we currently live?

- Holocene
- Quaternary
- Cenozoic
- Paleocene

Period	Approximate Time	Approximate Duration	Approximate Extinction Rate	Approximate Extinction Rate (per million years)
Cretaceous	100 Ma	100 Ma - 66 Ma	100 Ma - 66 Ma	100 Ma - 66 Ma
	66 Ma	66 Ma - 65 Ma	66 Ma - 65 Ma	66 Ma - 65 Ma
	65 Ma	65 Ma - 64 Ma	65 Ma - 64 Ma	65 Ma - 64 Ma
	64 Ma	64 Ma - 63 Ma	64 Ma - 63 Ma	64 Ma - 63 Ma
Jurassic	200 Ma	200 Ma - 145 Ma	200 Ma - 145 Ma	200 Ma - 145 Ma
	145 Ma	145 Ma - 136 Ma	145 Ma - 136 Ma	145 Ma - 136 Ma
	136 Ma	136 Ma - 125 Ma	136 Ma - 125 Ma	136 Ma - 125 Ma
	125 Ma	125 Ma - 110 Ma	125 Ma - 110 Ma	125 Ma - 110 Ma
Triassic	252 Ma	252 Ma - 252 Ma	252 Ma - 252 Ma	252 Ma - 252 Ma
	252 Ma	252 Ma - 252 Ma	252 Ma - 252 Ma	252 Ma - 252 Ma
	252 Ma	252 Ma - 252 Ma	252 Ma - 252 Ma	252 Ma - 252 Ma
	252 Ma	252 Ma - 252 Ma	252 Ma - 252 Ma	252 Ma - 252 Ma
Permian	299 Ma	299 Ma - 299 Ma	299 Ma - 299 Ma	299 Ma - 299 Ma
	299 Ma	299 Ma - 299 Ma	299 Ma - 299 Ma	299 Ma - 299 Ma
	299 Ma	299 Ma - 299 Ma	299 Ma - 299 Ma	299 Ma - 299 Ma
	299 Ma	299 Ma - 299 Ma	299 Ma - 299 Ma	299 Ma - 299 Ma

Click on the image to make it bigger. How many mass extinctions have occurred over time?

- 1
- 3
- 5
- 7

Time	Duration (Mya)	Key Events	Key Species
Phanerozoic	251.9 - 0	Formation of supercontinent Pangea, Permian-Triassic extinction, Mesozoic-Cenozoic extinction	Trilobites, Dinosaurs, Mammals
Pre-Cambrian	4550 - 541	Formation of Earth, Cambrian explosion, Snowball Earth	Trilobites, Jellyfish, Fish
Proterozoic	2519 - 541	Formation of supercontinent Rodinia, Great Oxidation Event	Trilobites, Fish, Mammals
Eozoic	541 - 251.9	Formation of supercontinent Pangea, Permian-Triassic extinction	Trilobites, Dinosaurs, Mammals
Palaeozoic	251.9 - 66	Permian-Triassic extinction, Mesozoic-Cenozoic extinction	Trilobites, Dinosaurs, Mammals
Mesozoic	66 - 25.2	Mesozoic-Cenozoic extinction	Dinosaurs, Mammals
Cenozoic	25.2 - 0	Formation of modern continents, Ice Ages	Mammals, Birds, Reptiles

Click on the image to make it bigger. How long ago did the Cenozoic Era begin?

- 0.01 million years ago
- 2.6 million years ago
- 66 million years ago
- 251.9 million years ago

Quiz

Section 4



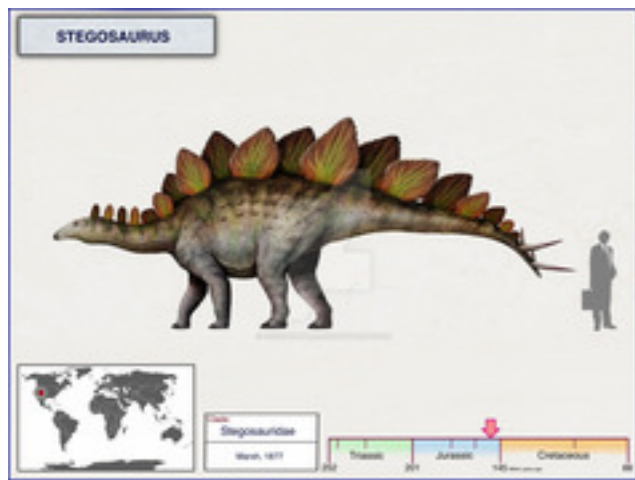
Look at the teeth of this fossil. Was it most likely a(n);

- carnivore
- herbivore
- omnivore



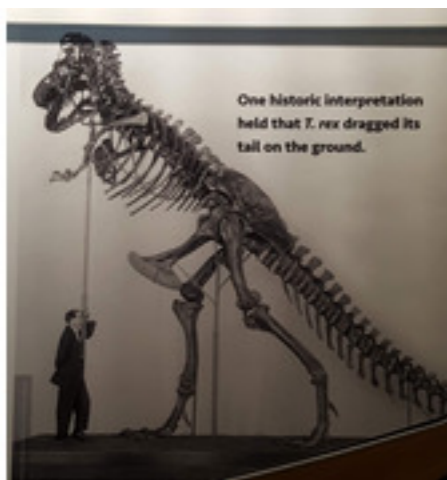
Look at the teeth of this fossil. Was it most likely a(n);

- carnivore
- herbivore
- omnivore



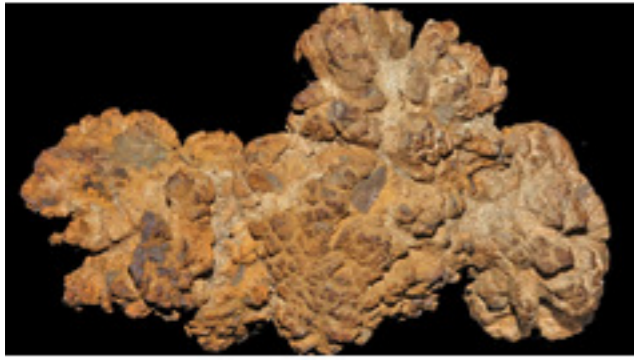
What do you think was the purpose of these large plates on the dinosaur's back?

- protection from predators
- as a weapon in fighting
- to attract a mate
- As a way to cool its body



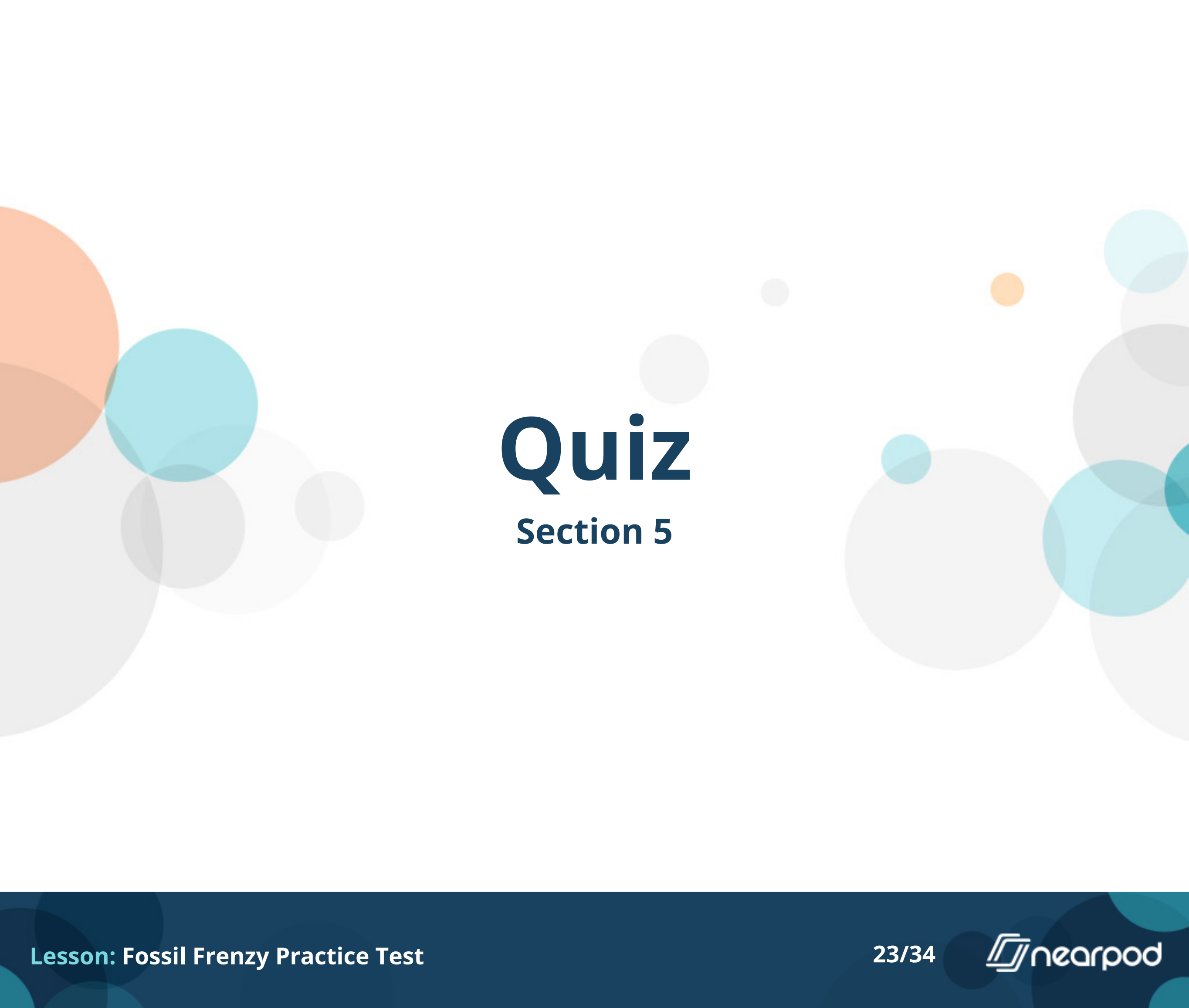
The hardest thing about studying fossils is that we have no living organisms to look at now. We sometimes use other clues they have left behind to help us understand how they lived. What are these called?

- trace fossils
- body fossils
- petrified fossils
- mummified fossils



This is fossilized dinosaur poop. What is its scientific name?

- Boring
- Trackway
- Burrow
- Coprolite



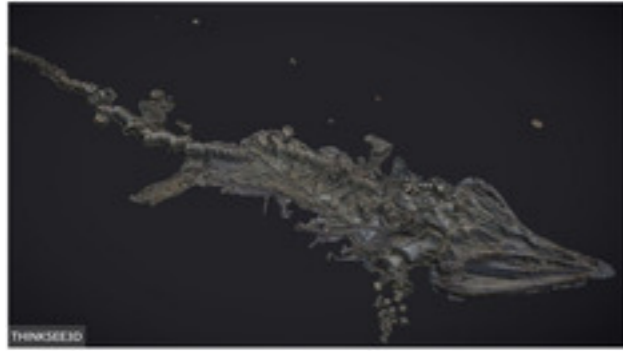
Quiz

Section 5



Identify this fossil.

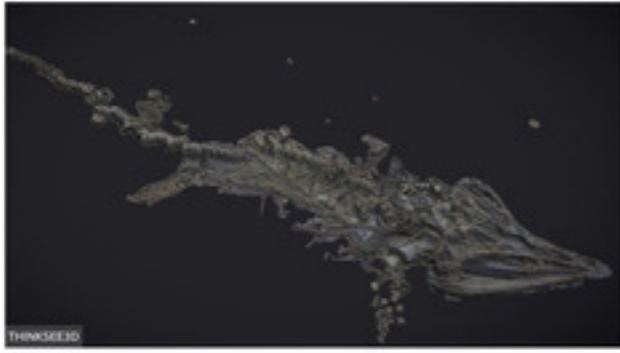
- Shark
- Bony fish
- Plesiosaur
- Ichthyosaur



THINKSEED
| The position of each bone was recorded in a number of ways, including 3D scans

This is a scan of a fossil that was recently discovered in the United Kingdom. What is this animal?

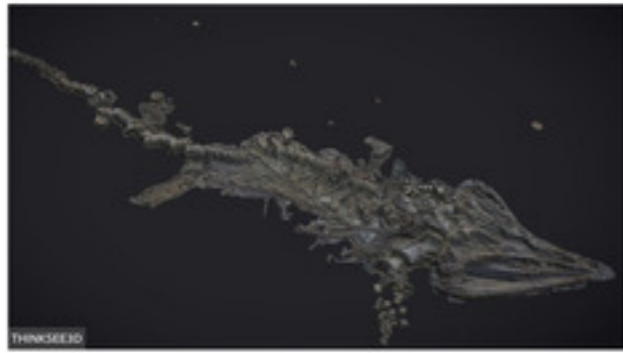
- Shark
- Ichthyosaur
- Plesiosaur
- Pterosaur



THINKSEED
The position of each bone was recorded in a number of ways, including 3D scans

What did these animals eat?

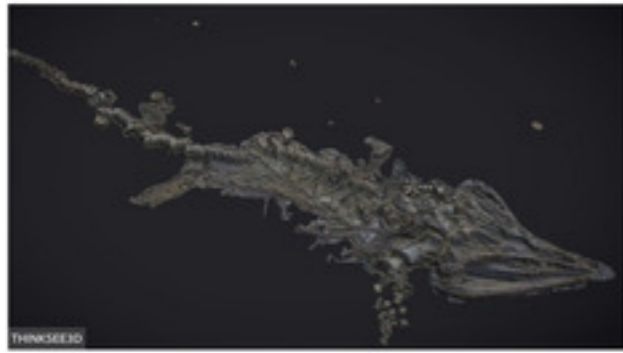
- Other animals
- Plants
- Plants & animals



THINKSEED
| The position of each bone was recorded in a number of ways, including 3D scans

True or False - these animals had a backbone.

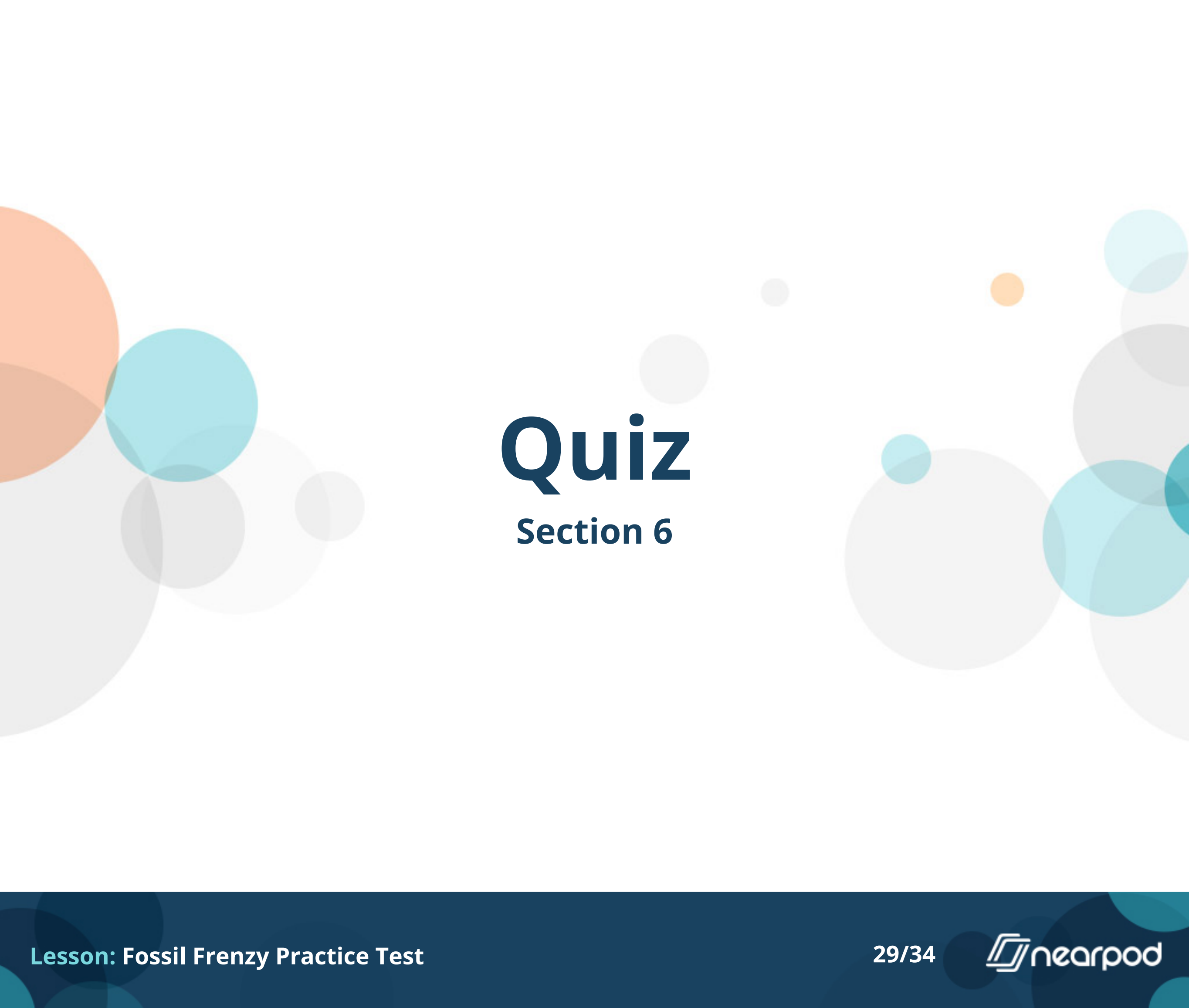
- True
- False



THINKSEED
| The position of each bone was recorded in a number of ways, including 3D scans

What environment did these animals live in?

- Desert
- Marine
- Swamp
- Terrestrial Forest



Quiz

Section 6

True or false. Most organisms turn in to fossils when they die.

- True
- False



This fossil shows a leaf was alive during the Cretaceous period.
(credit: W. T. Lee, USGS) What type of fossil is this?

- Cast
- Imprint
- Mold
- Mummification



This is from a fallen tree that got washed down a river and buried under layers of mud, ash from volcanoes and other materials. When it was sealed beneath this muck without any oxygen. As the wood's organic tissues slowly broke down, the resulting holes in the tree were filled with minerals such as silica. What is this process called?

- Mummification
- Petrification
- Entrapment in tar
- Cast/mold



A shell got buried in the ocean sand. As the sand hardened, the shell left an impression in the hardened sand. Over millions of years, the shell dissolved and other minerals filled in the impression. Which of the pieces in the pictures shows a MOLD?

- The piece on the left
- The piece on the right



How was this insect preserved?

- petrification
- freezing
- mummification
- encased in amber