TR: 70 1 **Listen and read.** See Student Book pp. 94–95.

TR: 71 2 **Learn new words.** **ancient** / Sequoias are the ancient giants of the forest. **catastrophe** / A major natural catastrophe led to the end of the dinosaurs. **develop** / Some dinosaurs weren't able to develop skills they needed to survive. **diameter** / *T. rex's* eyes were more than nine centimeters in diameter. **enormous** / Most dinosaurs were enormous compared to animals that live today. **exception** / There were smaller dinosaurs that were exceptions to the rule. **extinction** / Like dinosaurs, many animals of today face extinction. **frightening** / With its enormous teeth, *T. rex* was a frightening predator. **heart** / Scientists compared *T. rex's* heart with that of modern birds. **huge** / *Argentinosaurus* was so huge that the Earth shook when it walked. **jaw** / *T. rex* had powerful jaws and sharp teeth. **prehistoric** / Dinosaurs lived in prehistoric times. **stomach** / Crushed bones have been found in *T. rex's* stomach. **weigh** / *Argentinosaurus* weighed as much as ten elephants.

TR: 72 5 You may have heard that some dinosaurs had tiny brains. This is true for herbivores such as *Stegosaurus*, which had a brain the size of a lime. Predators such as *T. rex* had larger brains. That's because these massive creatures needed more developed brains in order to be effective predators. Being a carnivore, the *T. rex* could eat up to 230 kilograms of meat in a single bite! This was a huge amount of food, but not enough to make *T. rex* the biggest dinosaur that ever lived. That was the *Argentinosaurus*. Even though it only ate plants, its 100,000-calorie-per-day diet allowed it to become the largest dinosaur ever discovered. Despite its gigantic body, *Argentinosaurus* probably had a very small brain. But, at that size, he probably didn't need to be much smarter than the plants he fed upon.

TR: 73 5 **Learn new words.** **carnivore** / A carnivore is an animal that eats mostly meat. **gigantic** / *Spinosaurus* was a gigantic, meat-eating dinosaur. **herbivore** / An herbivore is an animal that eats only plants. **massive** / Most dinosaurs were massive creatures.

TR: 74 **Speaking Strategy** See Student Book p. 97.

TR: 75 7 **S1**: Mr. Farrah, is it possible that *Argentinosaurus* wasn't the biggest dinosaur?

S2: Well, Youssef, it's the biggest one that paleontologists have discovered so far, but there are other *sauropods* that were around the same size, maybe bigger.

S1: *Sauropods*?

S2: Yes, huge long-necked and long-tailed herbivores like *Argentinosaurus*.

S1: I wonder why their necks were so long.

S2: In theory they developed long necks so they could eat from trees without moving their heavy bodies.

S1: With their huge size, I can't imagine other dinosaurs would attack them. How did they go extinct?

S2: What may have happened is that carnivores focused more on eating their eggs or their young, instead of attacking the adults. It could be that the adults weren't able to protect their young, and they died out.

TR: 76 **Grammar** See Student Book p. 98.

TR: 77 13 When you hear the words "giant predator," you might think of fierce *T. rex*. And it's true *T. rex* was among the largest ancient predators on land. However, *T. rex* was only about two-thirds the size of the sea giant of the past, an ancient shark called megalodon. Megalodon, whose name means *giant tooth*, was the largest known marine predator. Megalodon was 15 meters long, and weighed as much as 50 tons, which is about the same as 18 adult male African elephants.

Megalodon lived from 16 million years ago to 2 million years ago, during the Miocene era. Little remains of this prehistoric sea creature except for its enormous jaws, which measure nearly 3 meters wide, and 2.75 meters tall. These jaws were so huge that they could crush a car with a single bite! Despite its enormous size, and the fact that it preyed on whales and other marine giants, megalodon wasn't able to survive. Cooling ocean temperatures and increased competition resulted in its extinction. Today, when we think of predators in the sea, we think of the great white shark. Megalodon had a similar appearance to the great white, but it was 2–3 times the size of its modern cousin.

TR: 78 13 **Learn new words.** **era** / *T. rex* was one of the largest predators of its era. **fierce** / The megalodon was fierce enough to capture and kill giant whales. **prey on** / Giant carnivores preyed on smaller animals. **times** / The megalodon was nearly three times the size of the great white shark.

TR: 79 17 **Learn new words.** **advantage** / *Sinosaurus's* large jaws gave it an advantage over other dinosaurs. **extraordinary** / *Spinosaurus* was extraordinary because it was an aquatic dinosaur. **significant** / Scientists have made significant discoveries about dinosaurs in the Sahara. **useless** / It would have been useless to try to escape from a predator like *Spinosaurus*.

TR: 80 18 **While you read.** See Student Book pp. 100–101.

TR: 81 **Grammar** See Student Book p. 104.

TR: 82 1 **Express Yourself** See Student Book pp. 108–109.