# Science Sessions

### **Crocodile Bites**

KS2 Year 3 and 4

Outcomes: I can draw a food chain

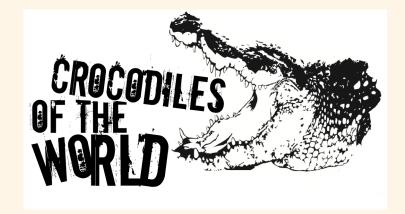
I understand Predators and Prey

I understand all about Producers and Consumers

I understand how energy goes up the food chain!

We're going to be working scientifically!

# Step 1: We all need energy to survive. Here on Earth, that means SUNLIGHT. The Sun is where the energy cycle starts for us. The Sun's energy goes into plants, and from the plants it then goes to animals. Since all animals need energy, the way that energy transfers from one LIVING THING to another is called a FOOD CHAIN. Fill in the missing words: Energy comes from \_\_\_\_\_\_\_. Plants turn the Sun's energy into food. Because they produce food from the Sun's energy, they are called \_\_\_\_\_\_\_. Animals then eat these plants, and they are called \_\_\_\_\_\_\_.



Step 2:		
So, plants form the basis of all food on earth. Next time you leave your peas on the plate, remember how important they are for life on earth!		
We know also that animals eat plants to get the energy they need to survive.		
The animals that eat plants directly are called consumers.		
These guys are often eaten by other animals, which are called		
consumers.		
After this, larger animals then feed on these secondary consumers. These large		
animals are called Predators that rarely get eaten themselves		
are called predators. Crocodiles are apex predators within their environments.		
chilionnenes.		
Despite people being scared of apex predators, these predators are critical for		
a healthy ecosystem. Every link in the food chain is needed, or the ecosystem will start to fail.		

Use these components to create a food chain (draw pictures of these things):

The Sun Algae Snails Fish Piranha Crocodile



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All this energy!

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2
3.
If we eat too much food too often, we cannot use all the energy from our food. What do you think our bodies do then?
Answer:
All this stored energy is what moves up the food chain. The larger predators require more
energy from their food.
As crocodiles grow, they eat larger and larger prey.
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Do you think it would be easier for it to eat larger fish that each have, say, 25 units of energy?

Can you name three things that an animal (including you!) would use energy for?



# Challenge!

People are surprised when they hear that we feed our adult crocodiles only once each week. Unlike mammals, reptiles have a slow metabolism ('cold-blooded' is a familiar term). Crocodiles simply do not require the same amount of energy as we do.

However, as APEX PREDATORS, they gain the increasing amount of energy as it moves up the food chain, and they conserve that energy by being very efficient.

A saltwater crocodile in the wild that weighs 100kg would eat about 700g of food each week.

A man that weighs 100kg would eat almost that amount every day!

If the man ate as much in one day as a crocodile eats in a week, what percentage of food does a crocodile eat compared to a man?

Answer:	

When crocodiles eat, much of that energy goes toward maintaining their body's cells, and toward growth: crocodiles keep growing all their lives. Very little energy is needed for metabolism. We need lots of energy to keep our body warm, and to be able to move around all the time, so we eat more than a crocodile does!



Answer: