Circle of life: food chains

By the end of the lesson the learners will be able to:

- Describe what food chains are.
- Draw conclusions on what would happen if a food chain was broken.

Materials and preparation

- If playing the physical quiz, you will need the food chains flash-cards.
- Ensure the classroom is free from trip hazards.
- Food chains picture cards for the food chain activity. Cut the paper in half so you one animal/plant picture per A5 sheet.
- Sticky tape for attaching the pictures to the learners' chests
- The circle of life: food chains worksheet. Print enough for two learners to share.

Key words

food chain
A food chain shows us how plants and animals in a habitat rely on each other for food. Food chains usually start with a green plant which is eaten by an animal which is then eaten by another animal.
Lions are at the top of the food chain.

energy
The power or ability to make something work, move or grow
Plants use the energy of the sun to grow.

predator
An animal that hunts other animals for food.
A female lion is an awesome predator.

prey
An animal being hunted, caught, and eaten by another animal.
Gazelles are prey for lions.

Starter

Mini-competition
10-15 mins

In groups of four, learners have to answer the following questions, on paper, as quickly as possible:

1. What gives you energy so that you can move your body, think and grow? (Food)
2. What gives animals energy so that they can move their body, think and grow? (Food)
3. What gives plants their energy so that they can move and grow? (The sun)
4. What do lions eat? (Zebras, gazelles, etc.)
5. What do zebras eat? (Grass)
6. What is a predator? (An animal who eats other animals)
7. What is prey? (An animal who gets eaten by other animals)

Go through the right answers with the group.

Alternative: a physical quiz.

1. Stick the Food Chain Quiz Flashcards provided on the walls around the classroom. Spread them out.
2. Ask questions 1-5 above. The learners must run to the correct answer.
3. Instead of questions 6 and 7, give the definition so the learners can run to the word being described, i.e. 'What is an animal who eats other animals called?'.

Main activity

Physical activity + writing
30 mins

1. **Make a chain.** Give out the pictures representing the sun, grass, a zebra and a lion to four learners. Give them a piece of sellotape and get them to stick the card to their chest.
2. Ask the group to stand in a line holding hands, in the order of who feeds whom, facing the class: sun, grass, zebra, and lion
3. Start again with the following pictures: sun, corn, guinea fowl, and hyena.
4. Then start again with: sun, sorghum, mouse, wild dog, and eagle.
5. **Discussion**. Ask:
   What do we call this arrangement of animals, plants and the sun?

Try and get learners to work out the term 'food chain' by writing the initial letters of the words on the board. Then progressively add letters until the children work it out: f... c….

6. Ask the learners the following question:
   What do all food chains begin with? (The sun)

Learners complete their worksheet. Make sure learners know what the words 'predators' and 'prey' refer to.

7. Go over the correct answers with the whole group.

Making chains

8. (You may want to go outside for this section, for extra space). Give out all of the sun, plant and animal pictures to learners and ask them to form food chains: learners need to find others with cards that relate to what they would eat, or what would eat them.
9. On finding their predator or prey, they should link hands, and go in search of more predators and prey for their chain. Once they think they have a correct food chain (from sun to top predator), learners hold hands and wait for the teacher to go

round and confirm that they are indeed in the correct order.
10. Go around all the groups and discuss the way the learners have organised themselves, and correct any wrong answers.

Breaking the chain

11. Select one food chain group and ask them to come up to the board. Ask everyone else to sit back down. Remove one 'animal' from the food chain and ask the class what would happen if this particular animal disappeared. The learners should come to the conclusion that other animals next in line in the chain wouldn't have any food left to eat. Ask 'what then happens to this animal if it doesn't have any food?' (It will die.)

12. Remove the next link in the food chain. What happens to the next link in the chain? And so on. Learners should come to the conclusion that every link in the chain is affected by the loss of one food item/prey animal. You should also help them realise that many elements in nature are interconnected
13. Repeat with a different food chain group.

Plenary

Writing/recall
10 min

Ask the class to write their own summary of what they have learnt in their books:

- Give an example of a food chain (using words and arrows)
- Explain what happens when this food chain is broken

Provide a list of key words on the board for children to choose from if they need help to write their information (example: *sun, grass, plant, prey, predators, energy, food chain, broken, not enough food, die*)

If there is not time for the written activity, you can ask learners to tell you one thing they have learned today, as a whole group.

OR

Provide the group with the Circle of Life: Food Chains Worksheet. Allow the learners to complete the worksheet in pairs. Go through the answers as a group, correcting any wrong responses.