Student Book Audio Script

TR: 30 Listen and Read 2 See Student Book pp. 45–46.

TR: 31 3 **Learn new words.**

allow	He wants me to allow him to join the group.
assume	To assume something is to think it is true although you can't prove it yet.
belong to	Humans usually want to belong to a group.
collective	Collective behavior is usually beneficial to a group.
consensus	In a group consensus, members come together and agree on a decision.
coordinated	Coordinated movements are organized and carried out in the same way.
efficient	An efficient person is organized and doesn't waste time.
formation	Some birds fly in a formation like the letter V.
leader	Many groups choose a leader to control things.
migrate	Animals that migrate travel to different parts of the planet.
migration	For many birds, migration takes place before winter.
potential	Potential predators will probably attack others.
prefer	When you prefer something, you like it more than another thing.
realize	When you realize something, you become aware of it.
system	He has a good system for organizing his research.

TR: 32 5 Most groups that humans belong to have leaders. Sometimes, though, we may be in crowds with no leaders, as in a stadium full of sports fans. Can we assume that animal groups act in the same way? In the case of elephants, the oldest female is the leader. All her offspring, or young, and their offspring remain with her for many years. But in the case of fish that assemble in groups, there is no one leader. The fish come to an agreement together through consensus. They see what their neighbors are doing, and mimic their behavior. If they see a potential predator, they will all quickly swim away together to avoid it. Any fish that prefer to go off alone are probably going to be lunch!

TR: 33 5 **Learn new words.**

assemble	People decide when to assemble in groups.
crowd	There was a large crowd of people at the concert.
mimic	Animals can mimic each other's behaviors.
remain	Some animals remain with their groups for safety.

TR: 34 Speaking Strategy See Student Book p. 47.

TR: 35 7 **S1**: You've heard about Iain Couzin's video game for fish, right? **S2**: Well, I know he did one, but I don't really know anything about it.

S1: It's amazing! He and his team used virtual prey and real predator fish. **S2**: Really? What did they do?

S1: They projected dots of light from a computer into the fish tank. Then they made them move around. As a result, the fish thought the dots were prey. **S2**: Wow. I bet those fish were confused!

S1: Yeah. Since they thought the dots of light were food, they would attack them and try to eat them. **S2**: Then what?

S1: The team programmed the dots to act in different ways. For example, some dots would group together and move away in one direction to avoid the predator. Other dots would move away by themselves. **S2**: And the team did this because they wanted to see which dots the predator would attack?

S1: Exactly. They found that the dots in groups that went in one direction avoided attacks the most, due to their coordinated behavior.

TR: 36 Grammar See Student Book p. 48

TR: 37 13 One way that animals build up a strong group connection is through some form of contagious behavior. A troop of gorillas or baboons will respond to its members' yawns. A flock of parrots will respond to yawning as well as stretching. Ravens, highly social birds, will carry out contagious play. A herd of elephants will clean themselves and then clean up the youngsters in their group. A swarm of ants will rely on their sense of smell to get back home. A pack of wolves will respond to their members' yawns. And, believe it or not, even a school of fish can yawn

TR: 38 13 **Learn new words.**

flock	A flock of starlings changes formation to confuse predators.
herd	A herd of elephants is usually led by the oldest female
pack	A pack of wolves hunts prey together.
school	A school of fish can change its direction suddenly.
swarm	A swarm of insects can be frightening to many people.
troop	A troop of chimpanzees can respond to human yawns.

TR: 39 15 See **TR: 37**.

TR: 40 18 **Learn new words.**

flash mob	A flash mob started to dance in the middle of the mall
influence	The students worked hard to influence the principal's decision.
intention	The group's intention is to focus on environmental problems.
join	Many students join sports teams.
stand out	Most teens want to be part of a group, but stand out at the same time.

TR: 41 While you read. 19 See pp. 50–51.

TR: 42 Grammar See p. 54.

TR: 43 30 1. We don't have enough paint for the flash mob paintball fight. 2. There are too many people in the hall. They won't all fit! 3. **S1**: Do we have enough cameras to record the flash mob? **S2**: Yes, we're OK. 4. We bought too much candy to throw to the audience.