

LESSON PLAN

JANUARY 2020

SWARM INTELLIGENCE



JUST ENGLISH MAGAZINE VOL.17 ISSUE 1
AUTOMATONS

B1 INTERMEDIATE

Stages	Procedure	Time
Objectives	<ol style="list-style-type: none"> 1. To practice <ol style="list-style-type: none"> a. guessing the meaning of words through the general idea of the topic b. skimming skills c. scanning skills to remember details 	
Warmer/ Lead-in	<ol style="list-style-type: none"> 1. Teacher shows quotes <ol style="list-style-type: none"> a. "All for one, one for all" b. "Individually, we are one drop. Together, we are an ocean" 2. Teacher asks <ol style="list-style-type: none"> a. What do the quotes mean? b. What are the advantages of teamwork? 3. Teacher leads into the topic of the day. 	5 mins
Pre-reading	<ol style="list-style-type: none"> 1. Teacher asks each student to name an animal that live in groups (eg. wolf, fish, etc.). Based on the student's answer, teacher quickly arranges students according to animal groups. 2. Teacher distributes Task 1. 3. Teacher asks students to underline the 3 species (birds, ants, and humans) mentioned in the article. 4. Then, teacher asks students to preview the words in the left column of Task 1 and asks what the general idea of the article is (eg. team, group, strength in numbers, etc.). 5. Then, teacher asks students to underline the words in the left column of Task 1 in the article. 6. In small groups, students discuss and complete Task 1. 7. Teacher checks answer. 	10 mins
While-Reading	<ol style="list-style-type: none"> 1. Teacher distributes Task 2. 2. In groups, discuss and complete Task 2. 3. Teacher checks answer and provides feedback. 	10 mins

Post-reading	<ol style="list-style-type: none">1. Teacher distributes Task 3.2. Teacher asks students to do a “closed book” activity to remember details of the article.3. Without reading the article, students discuss and complete Task 3 in groups.4. Teacher discusses the answers by asking students to open the magazine, scan, and identify the location of the information.	10 mins
Wrap	<ol style="list-style-type: none">1. Teacher elicits from the students what they understand about swarm intelligence.	5 mins

TASK 1

The words on the left are related to the concept of group. Underline these words in the article. Then, match the word to the correct meaning.

- | | | | |
|------------------|---|---|---|
| 1. swarm | ● | ● | a. a group of living organisms |
| 2. flocks (noun) | ● | ● | b. a community living close together that forms a social structure |
| 3. collective | ● | ● | c. a group of people appointed for a specific function |
| 4. members | ● | ● | d. a number of birds of one kind travelling together |
| 5. species | ● | ● | e. a large or dense group of flying insects |
| 6. committee | ● | ● | f. a large group of animals that live together |
| 7. colony | ● | ● | g. move somewhere in large numbers |
| 8. crowds | ● | ● | h. people or animals belonging to a particular group |
| 9. flock (verb) | ● | ● | i. a large number of people gathered together in a disorganized way |
| 10. herd | ● | ● | j. shared by all members of a group |

TASK 2

Skim the passage and write the correct paragraph number for each main idea.

Main Idea	Paragraph Number
A. Ants leave a chemical trail to communicate feedback to other ants to accomplish things that a single ant can't do.	
B. Humans exhibit herd behaviour.	
C. In contrast to robots, humans' swarm intelligence is more humanistic.	
D. The potential of humans' swarm intelligence is gaining interest, especially in the possibility of superhuman intelligence.	
E. The definition of swarm intelligence.	2
F. For ants, swarm intelligence is described as the species' natural instinct to achieve a common goal to survive.	
G. It can be observed that swarm intelligence exists among large crowds of people.	
H. The Unanimous Artificial Intelligence is a system that supports real-time human swarming in predicting outcomes.	

TASK 3

Scan the passage and match clause 1 to clause 2 to form details of how different species collectively solve problems.

- | | | |
|--|---|---|
| 1. Birds flock together in a 'V' formation | ● | ● a. to build complex and huge structures such as their nests. |
| 2. Birds detect motions of other members of the flock | ● | ● b. helps them move in a certain harmony within a crowd. |
| 3. Ants use chemical scents to organize themselves | ● | ● c. to reduce the resistance in the air which makes it easier for the weaker birds to fly. |
| 4. In a chaotic environment, humans' individual and unplanned behavior | ● | ● d. to organize themselves in a specific pattern in flight. |
| 5. Currently, the concept of collective intelligence of groups and swarms are used | ● | ● e. to predict outcomes as well as to control airport and air traffic flow. |

ANSWERS

Task 1

1. e
2. d
3. j
4. h
5. a
6. c
7. b
8. i
9. g
10. f

Task 2

- A. 5
- B. 7
- C. 10
- D. 8
- E. 2
- F. 4
- G. 6
- H. 9

Task 3

1. c
2. d
3. a
4. b
5. e