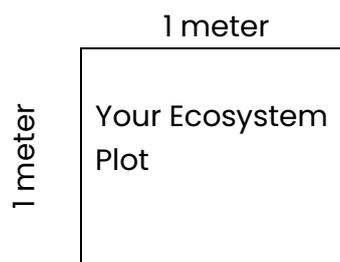


NATURAL SCIENCE AND TECHNOLOGY
FORMAL ASSESSMENT PRACTICAL TASK**GRADE 6****TERM 1**
MARKS (30)**Instructions:**

- Read the task carefully before you attempt to answer the questions.
- When collecting a leaf or flower specimen, two examples are enough.
- Do not touch or harm any animal, including insects, spiders and other living organisms in your study area.
- Look at the Appendixes for more information on different ecosystems.
- Complete all the answers and submit your answers as a report with a cover page to your teacher for marking.
- Write in blue or black ink.

Activity 1: Investigate an ecosystem in your school grounds or your garden

- Choose an ecosystem on your school grounds or in your garden. It can even be a fishpond, school garden, compost heap or vegetable garden.
- Measure a plot that you would like to study. The plots size can vary from 1 (1 m x 1m) to 10 meters by 10 meters (10 m x 10 m)



- Identify what type of ecosystem your study area classifies as.
- Focus your investigation on the main living (biotic) organisms and non-living (abiotic) elements in your ecosystem. Do some research as to what plants and animals live in this type of ecosystem and how they interact with each other.
- Study your ecosystem carefully and make notes in your workbook. Sit in your study area and observe and make notes of everything that you see.
- Create a T-Chart (sample below) to help you sort your finding into the following categories:

Non-living (Abiotic)	Living organisms (Biotic)				
	Plants	Animals			
		Herbivore	Carnivore	Omnivore	Decomposers

- You must name at least 4 non-living elements, 8 plants and 8 animals. Look at Appendix A for examples of animals and plants you might find in your ecosystem. Also, count how many of each species you can find, if possible.
- Investigate your ecosystem's biodiversity. Are there many different plants and animals?
- Identify any possible threats to your ecosystem.
- Note any other interesting observations down in your workbook.

Activity 1: Write a report on your findings

- Make a Cover Page for your report that includes the following information
 - Your Name and Surname
 - Grade and Class
 - Study area location
 - Type of ecosystem
 - Date of observation
- Read the questions below carefully. Answer the questions on your exam pad or as instructed by your teacher.
- Make sure that you number your questions correctly.

1. Use your textbook and dictionary to define the following terms
 - a) Ecosystem
 - b) Biotic
 - c) Abiotic
 - d) Investigate
 - e) Observation
 - f) Herbivore
 - g) Carnivore
 - h) Omnivore
 - i) Food web
 - j) Biodiversity
 - k) Threat
 - l) Urban ecosystem

2. What type of ecosystem did you investigate? (1)
3. Name the location of your ecosystem. (1)
4. Create a T-Chart (sample below) to help you sort your finding into the correct categories as indicated below. (2 marks) (12)

Non-living (Abiotic)	Living organisms (Biotic)				
	Plants	Animals			
		Herbivore	Carnivore	Omnivore	Decomposers

Name at least 4 non-living elements ($\frac{1}{2}$ mark each), 8 plants ($\frac{1}{2}$ mark each) and 8 animals ($\frac{1}{2}$ mark each). Next to each plant and animal name, write how many you counted e.g mushrooms (4)

5. Draw a food chain of your ecosystem. Include herbivores, carnivores, scavengers or decomposers. (4)
Look for an example of a food chain in your textbook
6. Evaluate your ecosystem's biodiversity. Is your ecosystem biodiverse? Provide a reason for your answer. (2)
7. Suggest two ways to increase the biodiversity of your ecosystem. (2)
8. Identify two possible threats to your ecosystem. (2)
9. Provide two possible solutions to overcome these threats. (2)
10. How do these identified threats affect the biodiversity of your ecosystem? (2)
11. Why is biodiversity within an ecosystem important? (2)

TOTAL

[30]

Appendix A: Examples of organisms in your ecosystem.

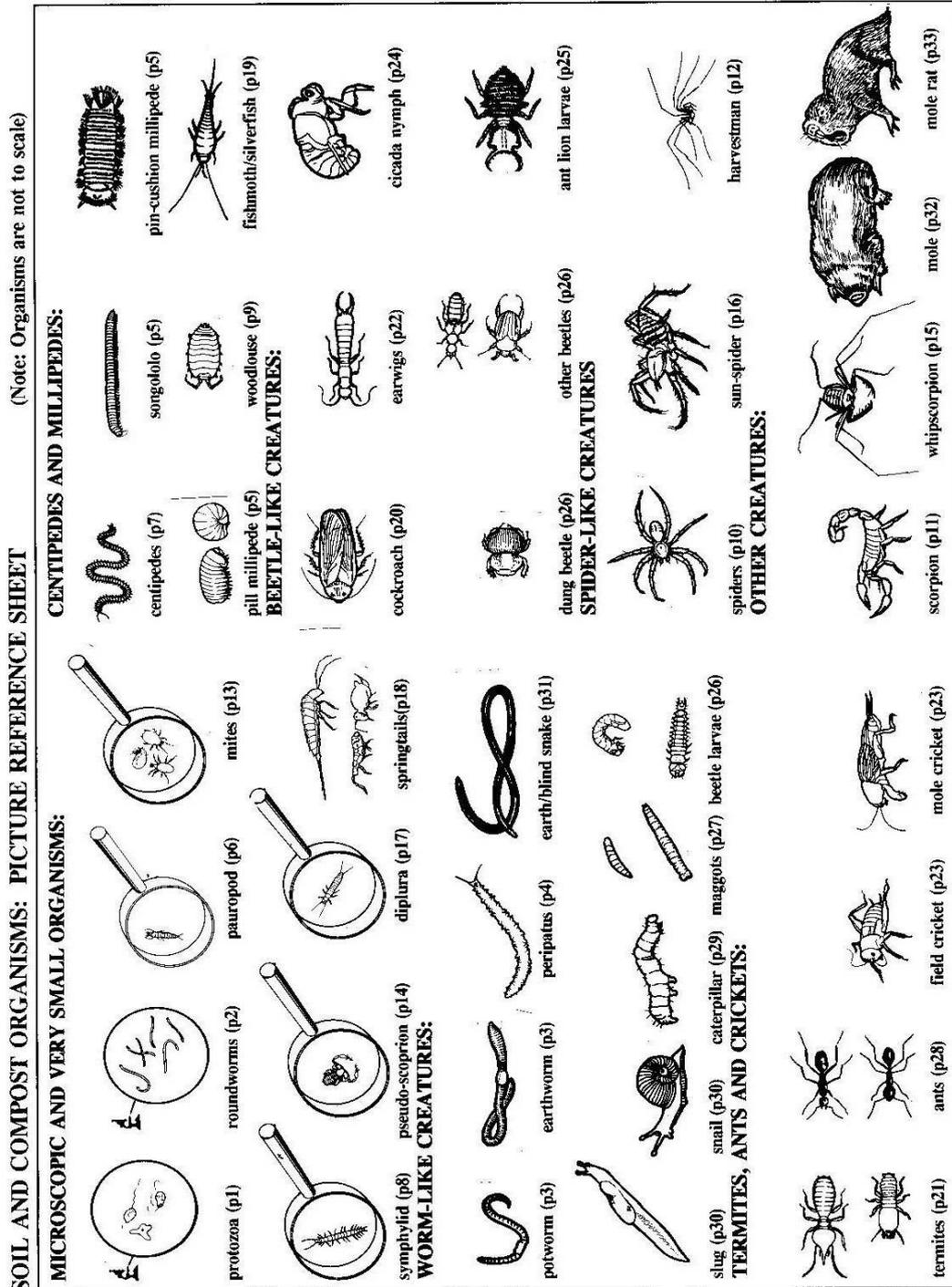


Figure 1: Soil and Compost Organisms - Available at:

https://docs.google.com/document/d/1CxpNmp9h_NmdycFByWTfEd7fjp4vXIBP/edit?usp=sharing&ouid=104214709973770054707&rtfpof=true&sd=true

Appendix B – Food Chains (Question 5)

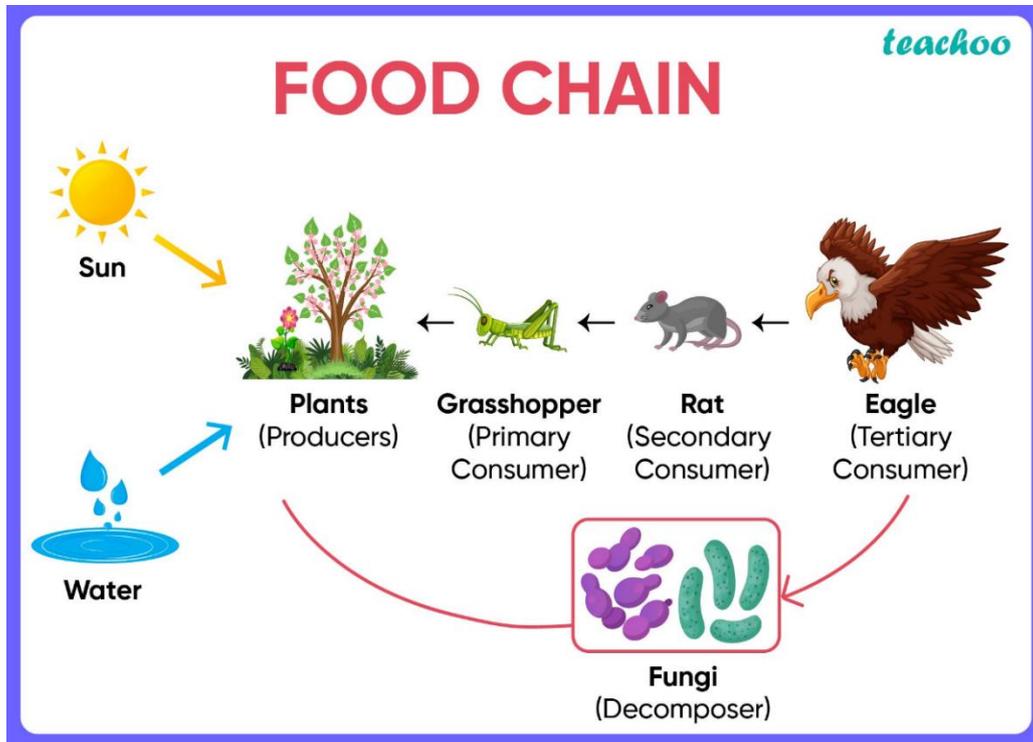


Figure 5: Food web Images available at: <https://www.teachoo.com/12932/3534/Question-2/category/Case-Based-Questions/>