

Notes Outline “Energy and Matter in Ecosystems”

Chapter 1.3 “Studying Life”

-The Characteristics of Living Things (18-19)

Chapter 3.1 “What is Ecology?”

-Studying Our Living Planet

-*The Science of Ecology* < 🔑 > (65)

-*Levels of Organization (individual, population, community, ecosystem, biome and biosphere. (Figure 3.1)*

-*Biotic and Abiotic Factors* < 🔑 > (66)

Chapter 3.2 “Energy, Producers and Consumers”

-Primary Producers or Autotroph (69-70)

-*Energy from the Sun*

-*Life Without Light*

-Consumers or Heterotrophs (71)

-*Type of Consumers (Herbivore, Carnivore, Omnivore, Detritivore, Decomposer)*

Chapter 3.3 “Energy Flow in Ecosystems”

-Food Chains and Food Webs < 🔑 > (73)

-*Food Chains*

-*Food Webs*

Food Chains Within Food Webs

Decomposers and Detritivores in Food Webs

-Trophic Levels and Ecological Pyramids (77)

-*Pyramids of Energy*

-*Pyramids of Biomass and Numbers* < 🔑 >

Chapter 3.4 “Cycles of Matter”

-Recycling in the Biosphere < 🔑 > (79)

-Water Cycle < 🔑 > (81)

-Nutrient Cycles < 🔑 > (82)