

Key

Chapter 26

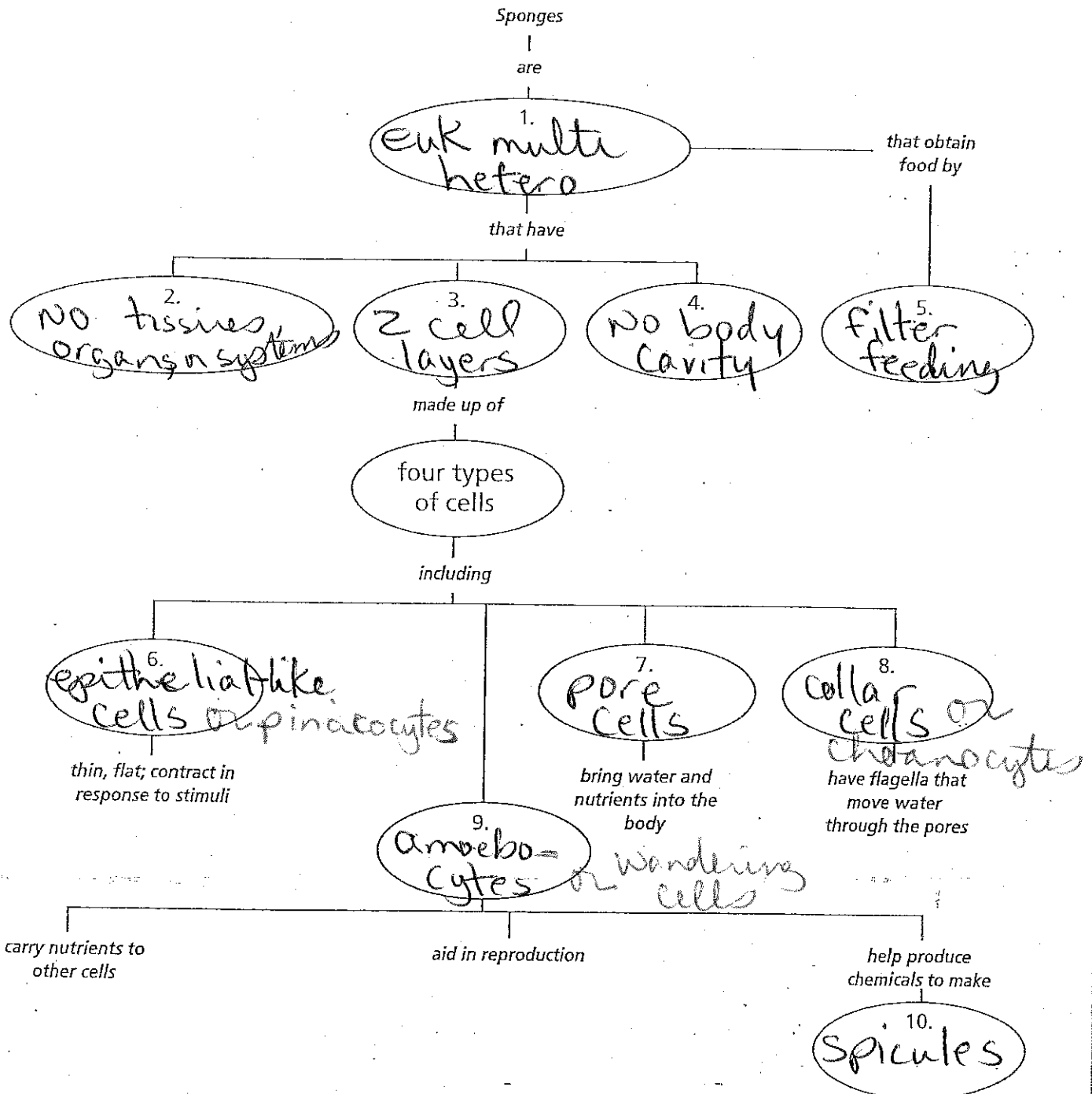
Sponges, Cnidarians, Flatworms, and Roundworms

Concept Mapping

Use with Chapter 26, Section 26.1

Sponges

Complete this concept map showing structure and function in a sponge. Use these words or phrases once: collar cells; no tissues, organs, or organ systems; amoebocytes; pore cells; two cell layers; filter feeding; eukaryotic multicellular heterotrophs; epithelial-like cells; no body cavity; spicules.



Chapter 27

Mollusks and Segmented Worms

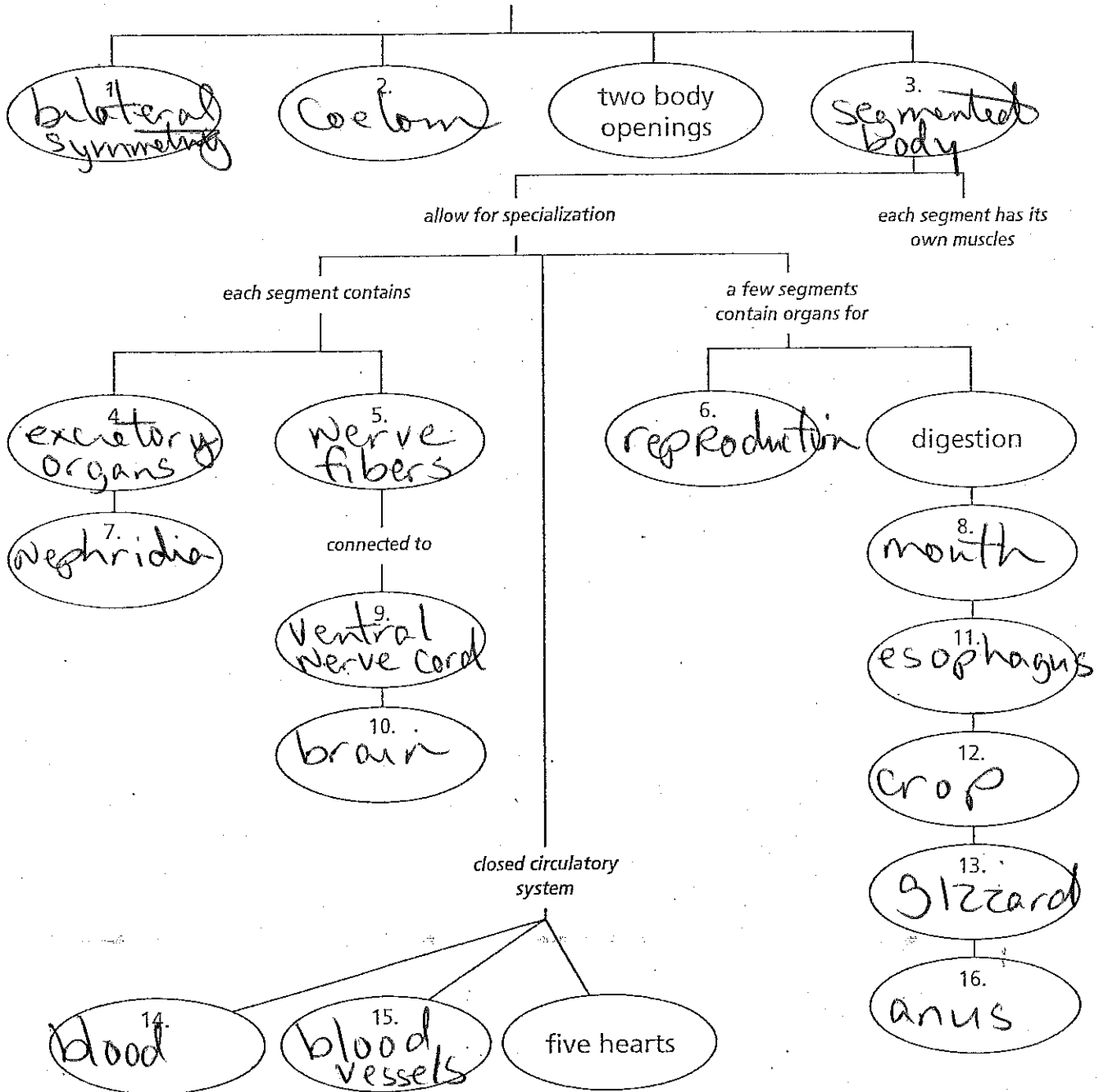
Concept Mapping

Use with Chapter 27, Section 27.2

Segmented Worms

Complete this network tree concept map showing the body organization of the earthworm. Use these words or phrases once: ventral nerve cord, coelom, brain, excretory organs, bilateral symmetry, crop, reproduction, gizzard, nephridia, anus, nerve fibers, blood, esophagus, segmented body, mouth, blood vessels.

Body Organization of the Earthworm

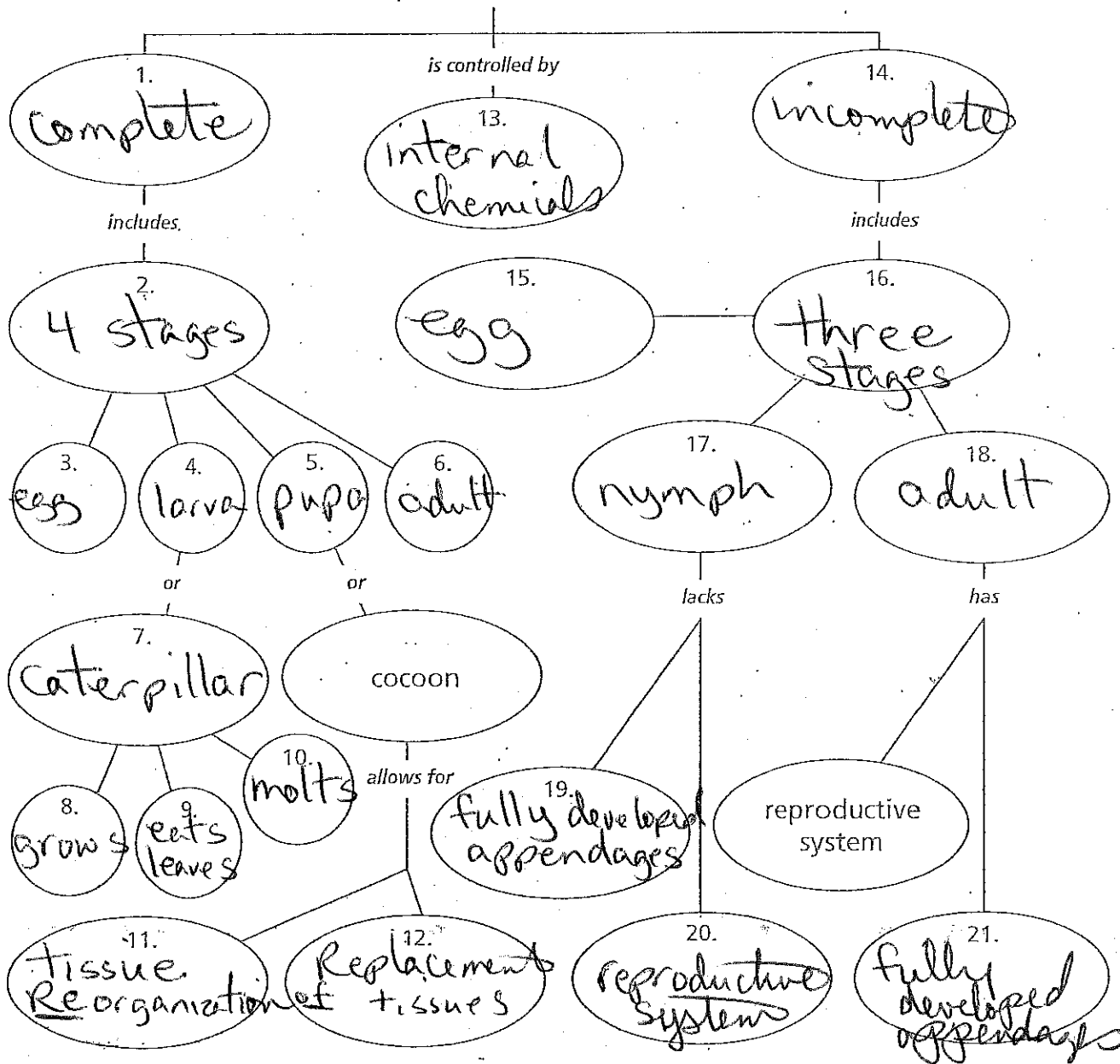


Copyright © Glencoe/McGraw-Hill, a division of The McGraw-Hill Companies, Inc.

Metamorphosis in Insects

Complete the concept map on metamorphosis in insects. Use these words or phrases one or more times: complete, internal chemicals, larva, tissue reorganization, (adult) four stages, nymph, incomplete, fully developed ^{2x} appendages, reproductive system, (egg) grows, three stages, caterpillar, eats leaves, replacement of tissues, molts, pupa.

Metamorphosis in Insects



The Invertebrate Animal Body

| GROUP & Examples | No. of germ (cell) layers, Type of Cavity | Body Symmetry | Reproduction (internal or external) | No. of body Openings | Systems Present (simple or complex) |
|--|--|--|--|-----------------------------|--|
| Porifera Sponge | 2, none | Asymmetrical | External, Sexually Budding, Asexual | Many | None, but spicules cover body, filter feeders |
| Cnidarians Jellyfish, Hydra Sea anemone | 2 tissue layers, none | Radial | External, Sexually Budding, Asexual | 1 | Nervous, Incomplete Digestive |
| Platyhelminthes Planaria, Tapeworm Liver fluke | 3, acoelomate | Bilateral | | 1 | Nervous, Incomplete Digestive, Excretory |
| Mollusca Clam Snail | 3, coelom | Bilateral | Hermaphrodites – external cross-fertilization | 2 | Nervous, Complete Digestive, Excretory, Open Circulatory |
| Annelids Leeches Earthworms | 3, coelom | Bilateral | Hermaphrodites – internal cross-fertilization Asexual - fragmentation | 2 | Nervous, Complete Digestive, Excretory, Closed Circulatory |
| Nematoda Pinworms Hookworms Ascaris | 3, pseudocoelomate | Bilateral | Sexually - internal & some external | 2 | Nervous, Complete Digestive, Excretory |
| Echinoderms Sand dollar, Sea star, Sea cucumber | 3, coelom | Bilateral, as larvae Radial, as adult | Most sexually – externally | 2 | Water Vascular System, Nervous, Reproductive, Open Circulatory, Complete Digestive |
| Arthropods Scorpion, Centipede, Lobster, Wasps | 3, coelom | Bilateral | Varies – most sexual, terrestrial, internal & aquatic, external | 2 | Nervous, Respiratory, Reproductive, Excretory, Open Circulatory, Exoskeleton, Complete Digestive |