

## Practice Questions for Material Covered on Exam 3

*You do not have to know all of the material in every chapter listed on the syllabus. To help you pick and choose what to focus on, I have selected the following questions as being most relevant to the material we will cover in class. As you study, try to answer these questions without looking at your book or your notes.*

### Chapter 12 – Forces of Evolutionary Change

Section	Question type	Question number(s) or question text
12.1	Mastering Concepts	1, 2
12.2	Mastering Concepts	1, 2, 3
12.3	Mastering Concepts	1, 2, 3, 4
12.4-12.5	Mastering Concepts	None
12.6	Mastering Concepts	1
12.7	Mastering Concepts	1, 2, 3, 4

Section/page	Question type	Question number(s) or question location
End of chapter	Multiple Choice	1, 2, 4, 6, 8, 10
End of chapter	Write It Out	1, 3, 4, 5, 6, 10
End of chapter	Pull It Together	1, 2, 3

### Chapter 13 – Evidence of Evolution

Section	Question type	Question number(s) or question text
13.1	Mastering Concepts	2
13.2	Mastering Concepts	1, 2, 3
13.3	Mastering Concepts	2
13.4	Mastering Concepts	1, 2
13.5	Mastering Concepts	1, 2
13.6	Mastering Concepts	1

Section/page	Question type	Question number(s) or question location
N/A	Figure It Out	Page 243
End of chapter	Multiple Choice	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
End of chapter	Write It Out	1, 4, 5, 6, 11,
End of chapter	Scientific Literacy	2
End of chapter	Pull It Together	1, 2, 3, 4

## Section 17.12 – Fossils and DNA Tell the Human Evolution Story

Section	Question type	Question number(s)
17.12	Mastering Concepts	2

Section/page	Question type	Question number(s) or question location
End of chapter	Write It Out	17, 18, 21

Make a concept map using the following terms: mutation, variation, natural selection, genetic drift, bottleneck effect, founder effect, artificial selection, allele frequency, population, evolution, adaptation, fitness, sexual selection, fossils, DNA, proteins, homologous structures, biogeography, evidence

## Chapter 14 – Speciation and Extinction

Section	Question type	Question number(s) or question text
14.1	Mastering Concepts	1, 2, 3
14.2	Mastering Concepts	1, 2
14.3-14.5	Mastering Concepts	None
14.6	Other	Use figure 14.15 to explain whether crocodiles are more closely related to lizards or to dinosaurs.

Section/page	Question type	Question number(s) or question location
N/A	Figure It Out	Page 266
End of chapter	Multiple Choice	1, 2, 3, 4, 8, 9, 10
End of chapter	Write It Out	2, 7, 8, 9
End of chapter	Pull It Together	1, 2

**Make a concept map** using the following terms: biological species, speciation, reproductive barriers, natural selection, common ancestor, clade, phylogenetic tree

## Chapter 15 – Evolution and Diversity of Microbial Life

Section	Question type	Question number(s) or question text
15.1	Mastering Concepts	1, 2, 4
15.2	Mastering Concepts	1, 2, 4
15.3	Mastering Concepts	1, 2
15.4	Mastering Concepts	1, 2, 3
15.5	Mastering Concepts	1, 2, 4, 5 (mycorrhizae and lichens only)

Section/page	Question type	Question number(s) or question location
End of chapter	Multiple Choice	3, 4
End of chapter	Write It Out	1, 2, 4, 5
End of chapter	Pull It Together	1, 2 (mycorrhizae and lichens only)

**Make a concept map** using the following terms from chapter 15: prokaryote, eukaryote, bacteria, archaea, protists, algae, protozoa, slime molds, autotrophs, heterotrophs, endosymbiosis, membrane infolding, chloroplast, mitochondrion, ribosomes, DNA, nucleus, endoplasmic reticulum, fungi, chitin, spore, hypha, heterotroph, yeast, mycorrhiza, lichen

## Chapter 16 – Evolution and Diversity of Plants

Section	Question type	Question number(s) or question text
16.1	Mastering Concepts	1, 2, 3, 4, 5
16.2	Mastering Concepts	2
16.3	Mastering Concepts	3
16.4	Mastering Concepts	1, 3
16.5	Mastering Concepts	2, 3, 4

Section/page	Question type	Question number(s) or question location
End of chapter	Multiple Choice	1, 3, 4, 5, 6, 7, 8, 9
End of chapter	Write It Out	1, 3, 4, 6, 7, 8, 13
End of chapter	Pull It Together	1, 4

*Check out figure 16.16 in the Chapter Summary – it summarizes plant diversity!*

**Make a concept map** using the following terms: plants, green algae, vascular tissue, xylem, phloem, cuticle, stomata, moss, fern, seed, flower, fruit, pollen, gymnosperm, angiosperm, lignin, cone, cellulose, chloroplast, photosynthesis

## Chapter 17 – Evolution and Diversity of Animals

Section	Question type	Question number(s) or question text
17.1	Mastering Concepts	1, 2, 3, 4, 5, 6
17.2	Mastering Concepts	1, 2
17.3	Mastering Concepts	1, 2
17.4	Mastering Concepts	1, 2
17.5	Mastering Concepts	1
17.6	Mastering Concepts	1
17.6	Other	What are some examples of annelids?
17.7	Mastering Concepts	1, 2
17.8	Mastering Concepts	1, 2, 4, 5
17.8	Other	What are some examples of arthropods?
17.9	Mastering Concepts	1, 2
17.10	Mastering Concepts	1, 3
17.11	Mastering Concepts	2, 3, 4
17.12	Mastering Concepts	<i>[Already covered earlier in this document.]</i>

Section/page	Question type	Question number(s) or question location
End of chapter	Multiple Choice	2, 3, 4, 6, 7, 8, 9, 11, 12
End of chapter	Write It Out	1, 2, 3, 4 (a and b only), 5, 6, 7, 8, 9, 10, 12, 13, 14, 16
End of chapter	Pull It Together	2, 3 (not including invertebrate chordates), 4 (not including tunicates and hagfishes), 5

***Check out figures 17.38 and 17.40 in the Chapter Summary – they summarize animal diversity!***

**Make a concept map** using the following terms: animal, heterotroph, invertebrate, vertebrate, blastula, gastrula, radial symmetry, bilateral symmetry, incomplete digestive tract, complete digestive tract, sponge, cnidarian, flatworm, mollusk, annelid, roundworm, arthropod, echinoderm, chordate, fish, amphibian, amniote, reptile, bird, mammal