

# Metacognition

## Inductive Learning

- Read the question.
- Put a ★ if you know it and a ? If you do not.
- Answer all the ★ questions using just your brain.
- Use your notes/our webpages/books to look up and complete all the ? questions.
- Mark/verify your answers to the ★ questions using notes/webpage/books.
- Make any required improvements to 'perfect' your answers.

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Prokaryotes and Eukaryotes	
	<b>Compare and contrast:</b> Light and Electron Microscopes	
	<b>Compare and contrast:</b> The different cell membrane models.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Passive and Active transport.	
	<b>Compare and contrast:</b> Mitosis and Meiosis	
	<b>Compare and contrast:</b> Anabolism and catabolism	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Organic versus inorganic	
	<b>Compare and contrast:</b> Saturated versus unsaturated fatty acids.	
	<b>Compare and contrast:</b> DNA and RNA	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Aerobic versus anaerobic respiration.	
	<b>Compare and contrast:</b> The action and absorption spectrum.	
	<b>Compare and contrast:</b> Chromosome structure of prokaryotic and eukaryotic cells,	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Autosomes and sex chromosomes.	
	<b>Compare and contrast:</b> Autotrophs and heterotrophs.	
	<b>Distinguish between:</b> Consumers, detritivores and saprotrophs.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Distinguish between:</b> Pentadactyl limbs.	
	<b>Distinguish between:</b> Plant phyla	
	<b>Distinguish between:</b> Animal phyla.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Analogous and homologous structures.	
	<b>Compare and contrast:</b> Autotrophs and heterotrophs.	
	<b>Distinguish between:</b> Animals using external recognition features (birds, mammals, amphibians, reptiles and fish).	



# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> The movement of carbohydrates, lipids and proteins during digestion.	
	<b>Compare and contrast:</b> Immune responses	
	<b>Distinguish between:</b> Antibodies and antigens	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> The two different types of pneumocytes.	
	<b>Compare and contrast:</b> Lung cancer and emphysema.	
	<b>Distinguish between:</b> Ventilation, gas exchange and respiration.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Hormonal and nervous control.	
	<b>Compare and contrast:</b> The control of blood glucose levels and temperature.	
	<b>Distinguish between:</b> Type I and type II diabetes.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> IVF and the menstrual cycle.	
	<b>Compare and contrast:</b> The action of leptin, thyroxin and melatonin.	
	<b>Distinguish between:</b> The males and female reproductive systems.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> DNA replication on the leading and lagging strand.	
	<b>Distinguish between:</b> Coding and non-coding DNA.	
	<b>Distinguish between:</b> The different levels of protein structures.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Distinguish between:</b> Fibrous globular proteins.	
	<b>Compare and contrast:</b> DNA replication and transcription.	
	<b>Distinguish between:</b> Polar and non-polar amino acids.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Transcription and translation.	
	<b>Compare and contrast:</b> The effect of proteins on gene expression.	
	<b>Distinguish between:</b> Active and inactive tRNA molecules.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Chromatin and heterochromatin	
	<b>Compare and contrast:</b> Competitive and non-competitive inhibition.	
	<b>Distinguish between:</b> The limiting factors which affect photosynthesis.	



# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> The structure of a mitochondria and a chloroplast.	
	<b>Compare and contrast:</b> Photosynthesis and respiration.	
	<b>Distinguish between:</b> The light dependent and light independent reactions of photosynthesis.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Photophosphorylation in photosynthesis and the ETC in respiration.	
	<b>Compare and contrast:</b> The Calvin Cycle and the Krebs Cycle	
	<b>Distinguish between:</b> The phloem and the xylem	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> The circulatory system and the plant transport system.	
	<b>Compare and contrast:</b> Temperature homeostasis and the transpiration in plants.	
	<b>Compare and contrast:</b> Translocation and digestion.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> The leaf and the lungs.	
	<b>Compare and contrast:</b> Inheritance when genes are linked and not linked.	
	<b>Distinguish between:</b> Pollination, fertilization and seed dispersal.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Allopatric and sympatric speciation.	
	<b>Compare and contrast:</b> Convergent and divergent evolution.	
	<b>Distinguish between:</b> Discrete and continuous variation.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Active and passive immunity.	
	<b>Compare and contrast:</b> Excretory products of different species.	
	<b>Distinguish between:</b> Osmoregulators and osmoconformers.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Spermatogenesis and oogenesis.	
	<b>Compare and contrast:</b> Internal and external fertilization.	
	<b>Distinguish between:</b> Contracted and relaxed muscle fibers.	

# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> Insect and human excretory systems.	
	<b>Compare and contrast:</b> Ultrafiltration, selective reabsorption in the kidney and absorption in the small intestines..	
	<b>Distinguish between:</b> Kidneys with and without kidney disease.	



# Interleaving: Inductive Learning

★ / ?	Question:	Answer:
	<b>Compare and contrast:</b> The placenta to the thyroid gland.	
	<b>Compare and contrast:</b> Gestational periods of humans compared to another mammal.	
	<b>Distinguish between:</b> Positive and negative hormonal feedback systems.	