**ATAR Biology Unit 1**

**Revision Checklist**

**Chapter 1 – Biodiversity**

* Species Evenness and Richness
* Edge Effect
* Spatial and Temporal Scales
* Australia’s Biodiversity Conservation Strategy 2010-2030
* Naturalists
* Australia – a Megadiverse Country
* Biodiversity Hotspots
* World Heritage Sites

**Chapter 2 – Classification**

* Classification
* Domains
* Linnaean Binomial Nomenclature
* Principles of Biological Classification
* Classification Evolution
* Why are organisms classified?
* Classification: the theory but why?
* Limits of Classification
* Field Guide
* Dichotomous Key
* Reflection of Classification on Evolutionary Relationship
* Cladograms and Phylogenetic Trees
* How to Construct a Cladogram or Phylogenetic Tree

**Chapter 3 – Biodiverse Ecosystem**

* Abiotic and Biotic Factors of an Environment
* Limiting Factors
* Terrestrial Biomes
* Aquatic Biomes
* Water Layers
* Eutrophication
* Ecological Niches
* Fundamental and Realised Niche
* Resource Partitioning
* Competitive Exclusion Principle
* Relationships and Interactions Between Living Things
* Keystone Species

**Chapter 4 – Energy and Matter in Ecosystems**

* Energy Sources of Life
* Producers and Productivity – Photosynthesis
* Productivity Measures
* Consumers and Energy
* Food Chains and Food Webs
* The 10% Rule
* Different Types of Organisms
* Pyramid of Numbers
* Pyramid of Biomass
* Pyramid of Energy
* Matter Recycling
* Nutrient Cycles
* Carbon Cycle
* Nitrogen Cycle
* Biomagnification

**Chapter 5 – Population Dynamics**

* Natural and Artificial Populations
* Factors that Affect Population Size
* Phases of a Population Life Cycle
* r-Selected Species
* k-Selected Species
* Exponential Growth – J-curve
* Logistic Curve – S-curve
* Measuring Population Growth
* Open and Closed Ecosystems
* Three Types of Distribution
* Quadrats
* Transect
* Capture-Mark-Recapture
* Satellite Sensing and Remote Tracking
* Population Regulation
* Survivorship Curves
* Chemical and Biological Controls
* Culling
* Reintroducing Populations

**Chapter 6 – Changes in Ecosystems**

* Primary Succession
* Secondary Succession
* Contrasts Between Primary and Secondary Succession
* Similarities in Primary and Secondary Succession
* Factors Preventing Climax Community Being Reaches
* Volcanoes
* Fire
* Climate Change
* Negative Human Impacts
* Strategies Used to Minimise Human Impact

**ATAR Biology Unit 1**

**Terminology Checklist**

**Chapter 1 – Biodiversity**

* Species
* Endemic
* Population
* Community
* Niche
* Ecological Niche
* Fundamental Niche
* Ecosystem
* Biotic
* Abiotic
* Environment
* Biome
* Biodiversity
* Genetic Biodiversity
* Mutation
* Gene Mutation
* Chromosome Mutation
* Variation
* Genotypic
* Phenotypic
* Biological Species Concept
* Morphological Species Concept
* Phylogenetic Species Concept
* Species Richness
* Species Evenness
* Ecosystem Diversity
* The Edge Effect

**Chapter 2 – Classification**

* Taxonomy
* Eukaryotic
* Prokaryotic
* Bioinformatics

**Chapter 3 – Biodiverse Ecosystem**

* Limiting Factors
* Biome
* Ecosystem
* Habitat
* Population
* Biosphere
* Nocturnal
* Diurnal
* Coexist

**Chapter 4 – Energy and Matter in Ecosystems**

* Biomass
* Trophic Levels
* Consumer Order
* Food Chain
* Trophic Efficiency
* Decomposers
* Pyramid of Numbers
* Pyramid of Biomass
* Pyramid of Energy
* Source
* Sink
* Non-biodegradable
* ppm

**Chapter 5 – Population Dynamics**

* Population
* Carrying Capacity
* Population Size (Abundance)
* Population Density
* Population Distribution
* Pest

**Chapter 6 – Changes in Ecosystems**

* Succession
* Nudation
* Pioneer Plants
* Primary Succession
* Secondary Succession
* Climax Community
* Deflected Succession