Plant and Animal Responses to their Environment

Checklist

Use this alongside our Walkthrough Guides to tick off the concepts you're confident with to plan your study and find areas of improvement!

Biological Rhythms

- ◯ I can describe what a **biological rhythm** is
- ◯ I can define a **circadian rhythm**
- ◯ I can provide an example of a circadian rhythm
- ◯ I can define a **circannual rhythm**
- ◯ I can provide an example of a circannual rhythm
- ◯ I can define a **circatidal rhythm**
- ◯ I can provide an example of a circatidal rhythm
- ◯ I can define a **circalunar** rhythm
- ◯ I can provide an example of a circalunar rhythm

Photoperiodism

- ◯ I can define **photoperiodism**
- ◯ I can explain the difference between long-day plants, short-day plants and day-neutral plants
- ◯ I can describe what **phytochrome** is
- ◯ I can explain the function of the two forms of phytochrome
- ◯ I can explain why it is important for plants to flower at a certain time of day

Rhythms

- ◯ I can define an **exogenous rhythm**
- ◯ I can describe things that might control an exogenous rhythm
- ◯ I can define an **endogenous rhythm**
- ◯ I can describe what drives an endogenous rhythm
- ◯ I can explain what a **free-running** period is
- ◯ I can define a **zeitgeber**
- ◯ I can describe the purpose of a zeitgeber
- ◯ I can explain what **entrainment** means
- ◯ I can explain **phase shifting**
- ◯ I can explain what an actogram is
- ◯ I can explain everything on an actogram
- ◯ I can find the length of a rhythm using an actogram

Orientation Responses in Plants

- ◯ I can define a **tropism**
- ◯ I can explain the difference between a positive and negative tropism
- ◯ I can name all of the stimuli that cause tropisms and nastic responses
- ◯ I can explain the importance of a tropism
- ◯ I can define a **nastic** response
- ◯ I can explain the difference between a nastic response and a tropism response
- ◯ I can describe how plant growth must occur in a tropism response
- ◯ I can explain what auxin does when there is a directional light source
- ◯ I can explain the role of **auxin** in roots

Orientation Responses in Animals

- ◯ I can describe what a **taxis** is and what type of species it occurs in
- ◯ I can describe what **kinesis** is
- ◯ I can explain the difference between orthokinesis and klinokinesis
- ◯ I can explain **homing**
- ◯ I can explain how animals locate their home
- ◯ I can explain what migration is
- ◯ I can explain the pros of migration
- ◯ I can explain how an animal knows when to migrate
- ◯ I can explain the cons of migration

Intraspecific Relationships

- ◯ I can describe a **territory**
- ◯ I can describe a **home range**
- ◯ I can describe a **lek**
- ◯ I can define a **niche**
- ◯ I can describe **Gause's Law**
- ◯ I can explain what would happen if two animals had the same niche
- ◯ I can explain an **intraspecific relationship**
- ◯ I can describe what **competition** is and how it can lead to aggression
- ◯ I can describe the pros and cons of living in a group
- ◯ I can describe a **hierarchy**
- ◯ I can discuss the difference between a linear and complex hierarchy
- ◯ I can explain why hierarchies are good in animal populations
- ◯ I can discuss the difference between **monogamy** and **polygamy** and when each would be more useful
- ◯ I can discuss the difference between R and K strategies
- ◯ I can describe the purpose of courtship
- ◯ I can explain the pros and cons of courtship
- ◯ I can explain some courtship rituals that may be used

Interspecific Relationships

- ◯ I can describe an **interspecific relationship**
- ◯ I can explain what can cause interspecific competition
- ◯ I can describe **exploitation** and list the three types of exploitation
- ◯ I can describe **mutualism**
- ◯ I can provide an example of mutualism
- ◯ I can describe **commensalism**
- ◯ I can provide an example of commensalism
- ◯ I can explain **mimicry**
- ◯ I can discuss the differences between **Batesian** and **Müllerian mimicry**

