



# PLANT AND ANIMAL RESPONSES

BIOLOGY

LEVEL 3

## Study Checklist

If you've picked up this checklist, congrats! You've begun the first step in a system of resources designed to help you through the Plants and Animals external. To make the most of this, we suggest you sit down, grab a pen, and mark any points that you're feeling a little unsure of. Then, create a subject audit using our template, or refer to the page numbers to find the section in our walkthrough guide to help you out!

### BIOLOGICAL RHYTHMS

- |  |     |   |     |
|--|-----|---|-----|
| <input type="checkbox"/> I can describe what a biological rhythm is  | [4] | <input type="checkbox"/> I can give an example of a circannual rhythm | [6] |
| <input type="checkbox"/> I can define a circadian rhythm             | [4] | <input type="checkbox"/> I can define a circatidal rhythm             | [6] |
| <input type="checkbox"/> I can give an example of a circadian rhythm | [5] | <input type="checkbox"/> I can give an example of a circatidal rhythm | [6] |
| <input type="checkbox"/> I can define a circannual rhythm            | [5] | <input type="checkbox"/> I can define a circalunar rhythm             | [7] |

### PHOTOPERIODISM

- |  |       |  |        |
|--|-------|--|--------|
| <input type="checkbox"/> I can define photoperiodism   | [8]   | <input type="checkbox"/> I can explain the function of the two forms of phytochrome                      | [9]    |
| <input type="checkbox"/> I can explain the difference between long day plants, short day plants and day-neutral plants | [8-9] | <input type="checkbox"/> I can explain why it is important for plants to flower at a certain time of day | [9-10] |
| <input type="checkbox"/> I can describe what phytochrome is  | [9]   |  |        |

### RHYTHMS

- |   |         |  |      |
|---|---------|--|------|
| <input type="checkbox"/> I can define an exogenous rhythm                             | [10]    | <input type="checkbox"/> I can define a zeitgeber                            | [13] |
| <input type="checkbox"/> I can describe things that might control an exogenous rhythm | [10-11] | <input type="checkbox"/> I can explain what entrainment means                | [13] |
| <input type="checkbox"/> I can define an endogenous rhythm                            | [11]    | <input type="checkbox"/> I can explain what phase shifting means             | [13] |
| <input type="checkbox"/> I can describe what drives an endogenous rhythm              | [11]    | <input type="checkbox"/> I can explain what an actogram is                   | [14] |
| <input type="checkbox"/> I can explain what a free running period is                  | [12]    | <input type="checkbox"/> I can explain everything that is on an actogram     | [14] |
| <input type="checkbox"/> I can describe the purpose of a zeitgeber                    | [13]    | <input type="checkbox"/> I can find the length of a rhythm using an actogram | [15] |

## ORIENTATION RESPONSES IN PLANTS

- |   |  |
|---|--|
| <input type="checkbox"/> I can define what a tropism is [17]  | <input type="checkbox"/> I can name all of the stimuli that cause tropisms and nastic responses [18] |
| <input type="checkbox"/> I can explain the difference between a positive and negative tropism [17]          | <input type="checkbox"/> I can describe how plant growth must occur in a tropism response [19]       |
| <input type="checkbox"/> I can explain the importance of a tropism [18]                                     | <input type="checkbox"/> I can explain what auxin does when there is a directional light source [19] |
| <input type="checkbox"/> I can define a nastic response [18]  | <input type="checkbox"/> I can explain the role of auxin in roots [20]                               |
| <input type="checkbox"/> I can explain the difference between a nastic response and a tropism response [18] |  |

## ORIENTATION RESPONSES IN ANIMALS

- |  |   |
|--|---|
| <input type="checkbox"/> I can describe what a taxis is and what type of species it occurs in [20] | <input type="checkbox"/> I can explain how animals locate their home [23]       |
| <input type="checkbox"/> I can describe what a kinesis is [21]                                     | <input type="checkbox"/> I can explain what migration is [23]                   |
| <input type="checkbox"/> I can explain the difference between orthokinesis and klinokinesis [21]   | <input type="checkbox"/> I can explain the pros of migration [24]               |
| <input type="checkbox"/> I can explain what homing is [22]   | <input type="checkbox"/> I can explain how an animal knows when to migrate [24] |
|  | <input type="checkbox"/> I can explain the cons of migration [24]               |

## INTRASPECIFIC RELATIONSHIPS

- |  |   |
|--|---|
| <input type="checkbox"/> I can describe what a territory is [26]                                   | <input type="checkbox"/> I can describe what a hierarchy is [30]  |
| <input type="checkbox"/> I can describe what a home range is [27]                                  | <input type="checkbox"/> I can discuss the difference between a linear and complex hierarchy [30]                           |
| <input type="checkbox"/> I can describe what a lek is [27]   | <input type="checkbox"/> I can explain why hierarchies are good in animal populations [31]                                  |
| <input type="checkbox"/> I can define a niche [28]   | <input type="checkbox"/> I can discuss the difference between monogamy and polygamy and when each would be more useful [32] |
| <input type="checkbox"/> I can describe Gause's Law [28]   | <input type="checkbox"/> I can discuss the difference between R and K strategy [33]   |
| <input type="checkbox"/> I can explain what would happen if two animals had the same niche [28]    | <input type="checkbox"/> I can describe the purpose of courtship [34]   |
| <input type="checkbox"/> I can explain what an intraspecific relationship is [28]                  | <input type="checkbox"/> I can explain the pros and cons of courtship [34]  |
| <input type="checkbox"/> I can describe what competition is and how it can lead to aggression [29] | <input type="checkbox"/> I can explain some courtship rituals that may be used [34]   |
| <input type="checkbox"/> I can describe the pros and cons of living in a group [30]                |   |

## INTERSPECIFIC RELATIONSHIPS

- |   |  |
|---|--|
| <input type="checkbox"/> I can describe what an interspecific relationship is [35]                            | <input type="checkbox"/> I can explain an example of mutualism [38]                                |
| <input type="checkbox"/> I can explain what can cause interspecific competition [36]                          | <input type="checkbox"/> I can describe what commensalism is [38]                                  |
| <input type="checkbox"/> I can describe what exploitation is and list the three types of exploitation [36-37] | <input type="checkbox"/> I can explain an example of commensalism [38]                             |
| <input type="checkbox"/> I can describe what mutualism is [38]  | <input type="checkbox"/> I can explain what mimicry is [38]  |
|   | <input type="checkbox"/> I can discuss the differences between batesian and müllerian mimicry [39] |