## Cheatography

### Organism Response and Behaviour Cheat Sheet by Bendash13 (Bendash13) via cheatography.com/24992/cs/12029/

Types of Receptors				
Photoreceptor s	Detects light, colour not important. detection of movement and shapes essential			
Thermorecep tors	Infra-red detected, receptors not in eyes			
Mechanorece ptors	Detects: touch, pressure, movement, gravity, stretch. important for co-ordination			
Propriorecept ors	responds to tension in muscles and joints			
Chemorecept ors	Smell (olfaction), taste(gustation)			
Auditory Receptors	Detects sound waves			
Electrical Fields	Fish use to detect disturbances nearby			
Magnetic Fields	Homing in pigeons			

#### Tropism

Tropisms are a plant growth response to stimuli. This response can be positive (towards) or negative (away from).

Types of Tropism						
Stimulus	Root	Shoot	Advantage			
Phototropis m	-	+	More light for shoot. Better anchorage+water+minerals for root			
Geotropism	+	-	Same as above			

#### 5 Major Plant Hormones

Name	Stimulus	Produced	Effect
Auxin	Light in shoot, Gravity in roots	Apical Meristem	Cell elongation promoted in shoots and inhibited in roots
Gibberellin s		Apical Meristem	Breaks dormancy, elongation of stems
Ethylene		Senesing leaf	Stimulates sugar production from starch
Cytokinins		Apical Meristem	Cell division in presence of auxin.
Abscisic Acid (ABA)	Response to water stress	Leaves, Fruit, Stem, Root cap	Controls dormancy, promotes abscission, inhibits seed growth

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## Phototropism What causes Phototropism? Auxin (IAA) Where is it produced? Apical meristem What does it do? Promotes cell elongation in shoot, inhibits in root Where does it go? Moves down plant from shoot to root Why does it only affect one side? Moves laterally across to the shaded side What is the result of elongation? Shoot grows towards light, root grows away. What is the benefit? More light for photosynthesis in shoots. roots grow away into soil where there is more minerals and water for photosynthesis. Geotropism What is it? Plant growth response to gravity How is it detected? Starch grains called Statoliths settle at bottom of root cap cells What is th response? Leads to redistribution of auxin at roots causing the root to grow towards gravity. Does it affect shoots? Yes, in the absence of light shoots exhibit negative geotropism, they grow away from gravity Nastic Responses

#### What is it?

Movement of a plant part in response to stimuli

How fast does it occur?

Slow, but faster than tropisms

How responded?

Uniform response, regardless of direction of stimuli

Examples of responses

Venus flytrap responding to chemicals.

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