

Hormonal Control in Plants - Guided Discussion

Topic 9: Plant Science AHL

Directions: For this assignment you are going to answer questions based on two things: 1) an animation "[Auxin and plant responses](#)", and 2) A short video, "[Gene activation by the plant hormone Auxin](#)". Complete the animation first and answer the questions that follow, and then watch the video and complete those answers. Your answers to the questions will form the basis of the following class discussion.

Part I: Auxin and plant responses

Complete the following [animation](#), and then answer the questions that follow:

<http://www.kscience.co.uk/animations/auxin.htm>

1. Name the plant hormone which is responsible for phototropic responses in plants.
2. Where is this hormone produced?
3. What effect does this hormone have on cells in the shoot?
4. What is the effect of light on the location of this hormone?
5. How do protein pumps in the cell membranes of cells of the shoot control the movement of the hormone?

Part II: Gene activation by the plant hormone Auxin

Watch the following [video](#), and then answer the questions that follow:

<https://www.youtube.com/watch?v=WJ6t00UgWqE&feature=youtu.be>

1. What are the two parts found in an auxin regulated gene?
2. When auxin is present in the cell nucleus what does this do to the transcription factor?
3. Why is this described as a double negative mechanism?