

# How Do Plants React?

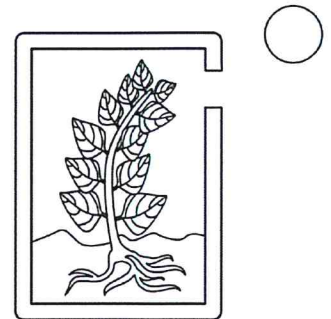
Read about plant tropisms.

## What is a tropism?

A **tropism** is the movement or growth of a plant as it responds to a stimulus in its environment. (A **stimulus** is anything that causes an action.) Different plants have different ways of responding to light, gravity, and touch. Each tropism has a specific name based on the stimulus involved.

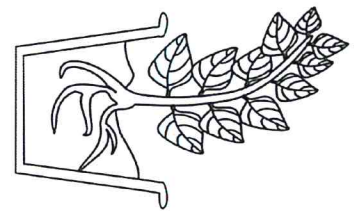
## Phototropism

**Phototropism** is the growth of a plant toward or away from light. If a plant grows toward the light, it has a positive phototropism. If a plant grows away from light, it has a negative phototropism. In many cases one plant can exhibit both positive and negative phototropism. The shoots of the plant grow toward the light, and the roots grow away from the light.



## Geotropism

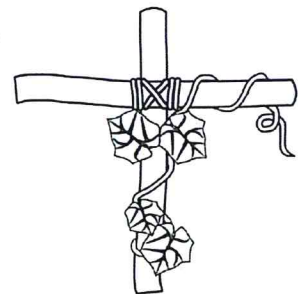
A plants' response to gravity is known as **geotropism**. In general, most plant shoots grow up, away from the ground (negative geotropism). If you lay a potted plant on its side, the plant shoot will eventually bend and continue to grow upward. Most plant roots grow down further into the ground (positive geotropism).



## Thigmotropism

**Thigmotropism** is a plant's response to touch. In many cases, a plant tendril will grow straight until it touches something such as a tree branch. Then the tendril coils around the branch for support. This is called positive thigmotropism.

Roots usually show negative thigmotropism. Roots generally grow away from rocks and other objects in the soil that get in their way.



# Plant Tropisms

**DIRECTIONS:** Read each question or sentence on the other page provided and draw a line that connects it to the answer that best completes it. Each answer choice corresponds to a color. On this coloring page, color every section that contains that question number with the designated color of your answer choice.



# Plant Tropisms

## Color-by-Number

Follow the directions on the other page provided.

#	Questions/Sentences
1	What is the term that describes how a plant responds to gravity?
2	A plant that grows toward a light source is showing _____.
3	What part of a plant is most likely to grow toward a light source?
4	What part of a plant is most likely to show negative phototropism?
5	A _____ is anything that causes a reaction.
6	The term for a plant's response to touch is _____.
7	Plant roots usually respond to gravity by demonstrating _____.
8	When a plant's roots move away from an object they touch, this is called _____.
9	When a plant that is placed on its side starts to bend and grow upward, it is responding to the earth's _____.
10	The response that plant shoots have to gravity is _____.
11	The tendrils of a plant wrapping around a garden stake is an example of _____.
12	In general, a _____ is a movement a plant makes in response to something in its environment.

Answer Choices
roots Color DARK GREEN
negative geotropism Color LIGHT BLUE
positive thigmotropism Color PURPLE
stimulus Color DARK BLUE
thigmotropism Color LIGHT GREEN
negative thigmotropism Color BLACK
positive geotropism Color GREY
geotropism Color ORANGE
gravity Color BROWN
shoots Color PINK
tropism Color RED
positive phototropism Color YELLOW