



INSTITUTO FEDERAL
SÃO PAULO
Campus São Roque

Botânica II

Prof. Dr. Fernando Santiago dos Santos

fernandoss@ifsp.edu.br

www.fernandosantiago.com.br

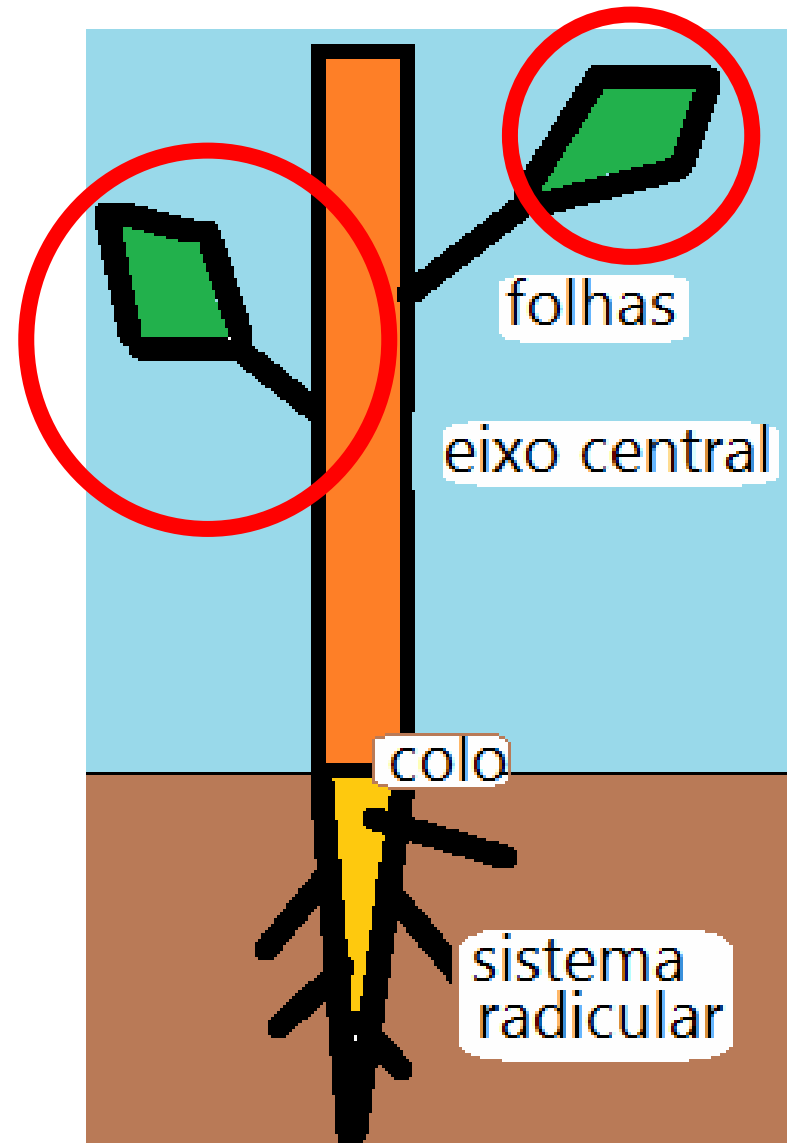
(13) 8822-5365

Aula 5

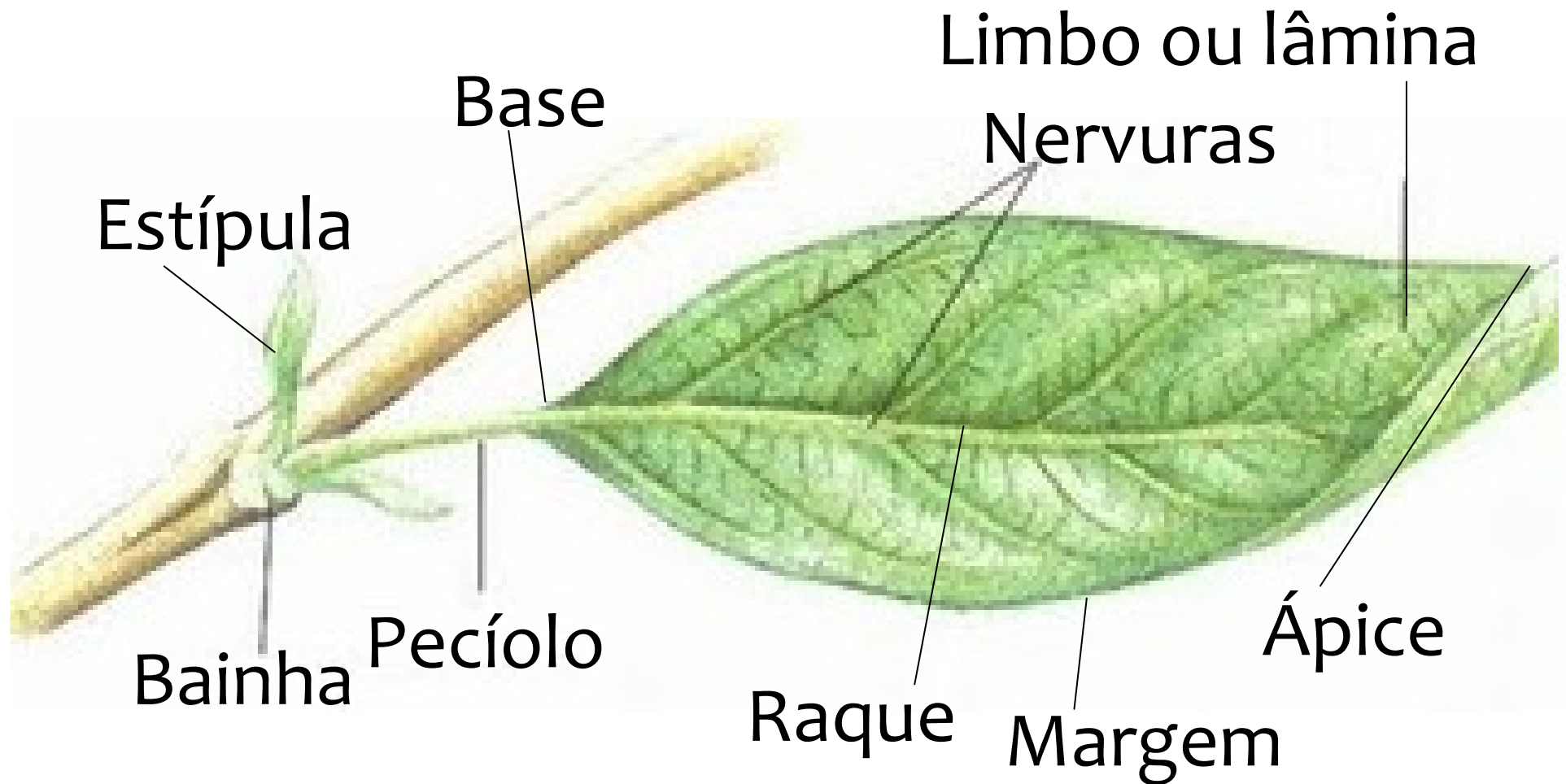
- **Morfologia externa:**
 - **Lâminas foliares e filotaxia**
 - **Aparato reprodutor: flores**

Lâminas foliares e filotaxia

Folhas: Participação na fotossíntese; evapotranspiração; gutação; produção de compostos secundários.

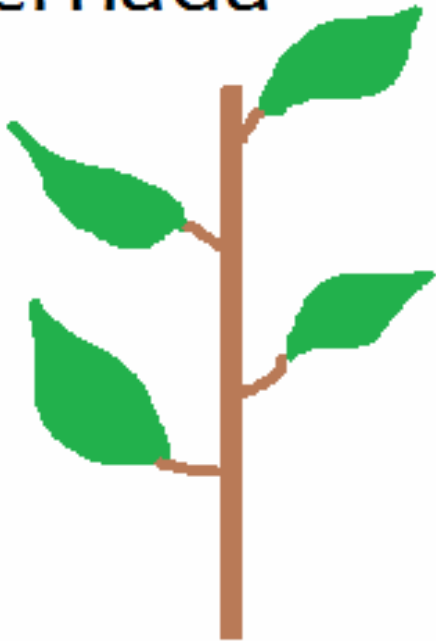


Partes da folha

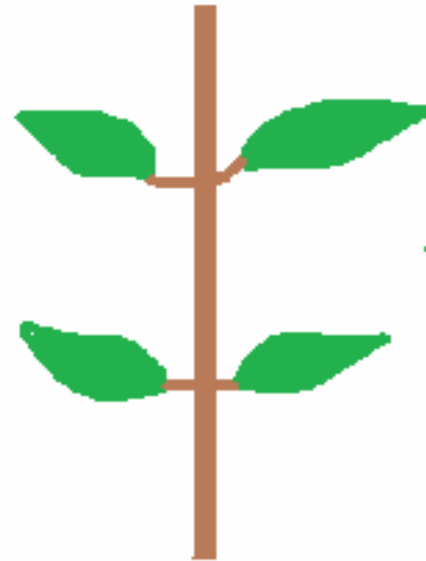


Filotaxia

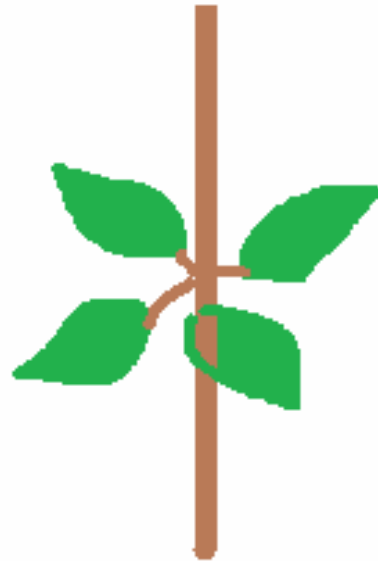
Alternada



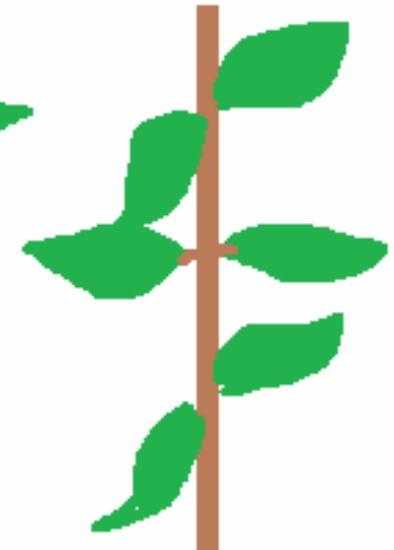
Oposta
díctica



Verticilada

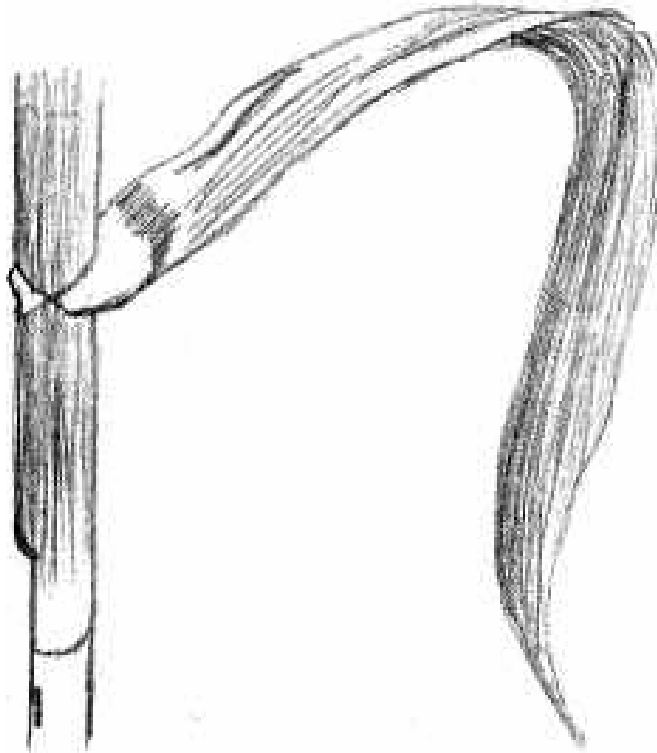


Oposta
cruzada

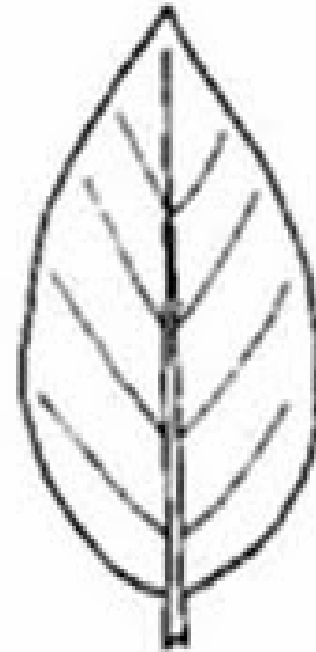


Tipos de folha

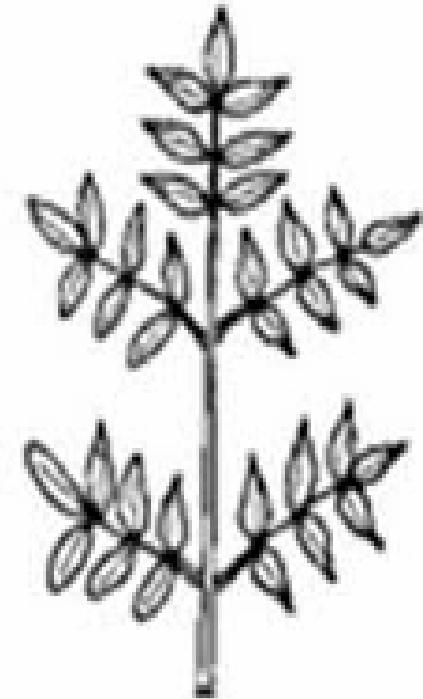
Peciolada



Invaginante
ou séssil



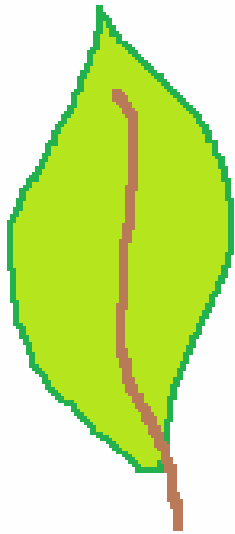
Simples



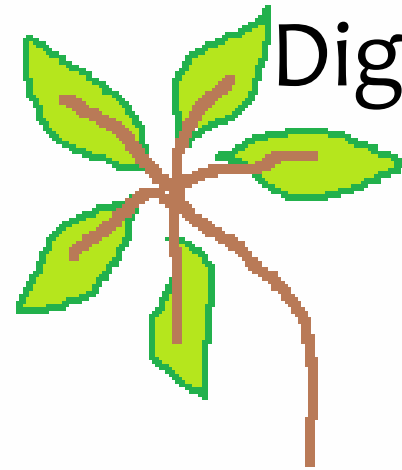
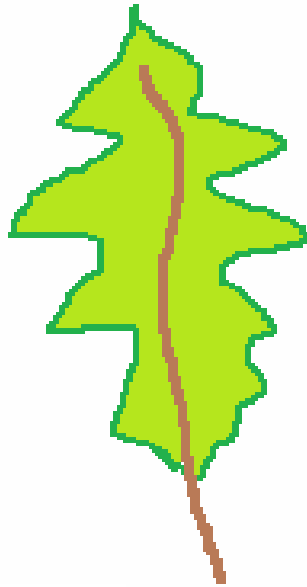
Composta

Variação morfológica (I)

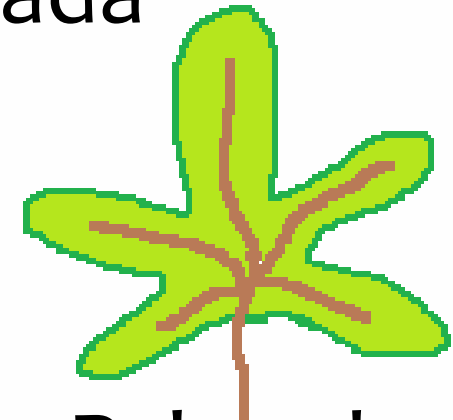
Simple
inteira



Partida

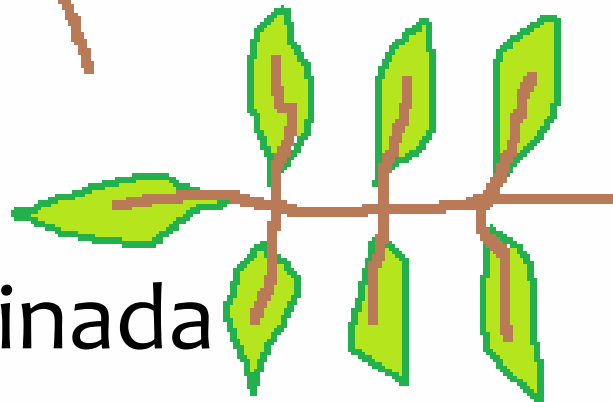


Digitada

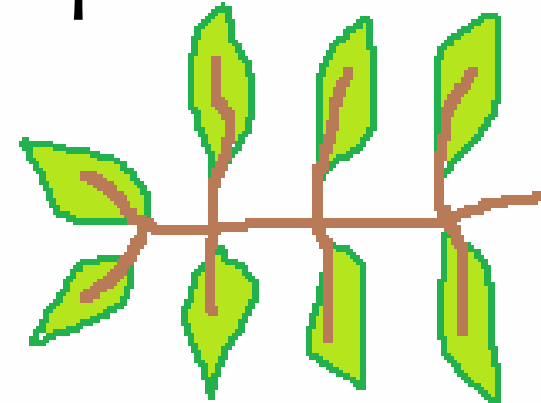


Palmada

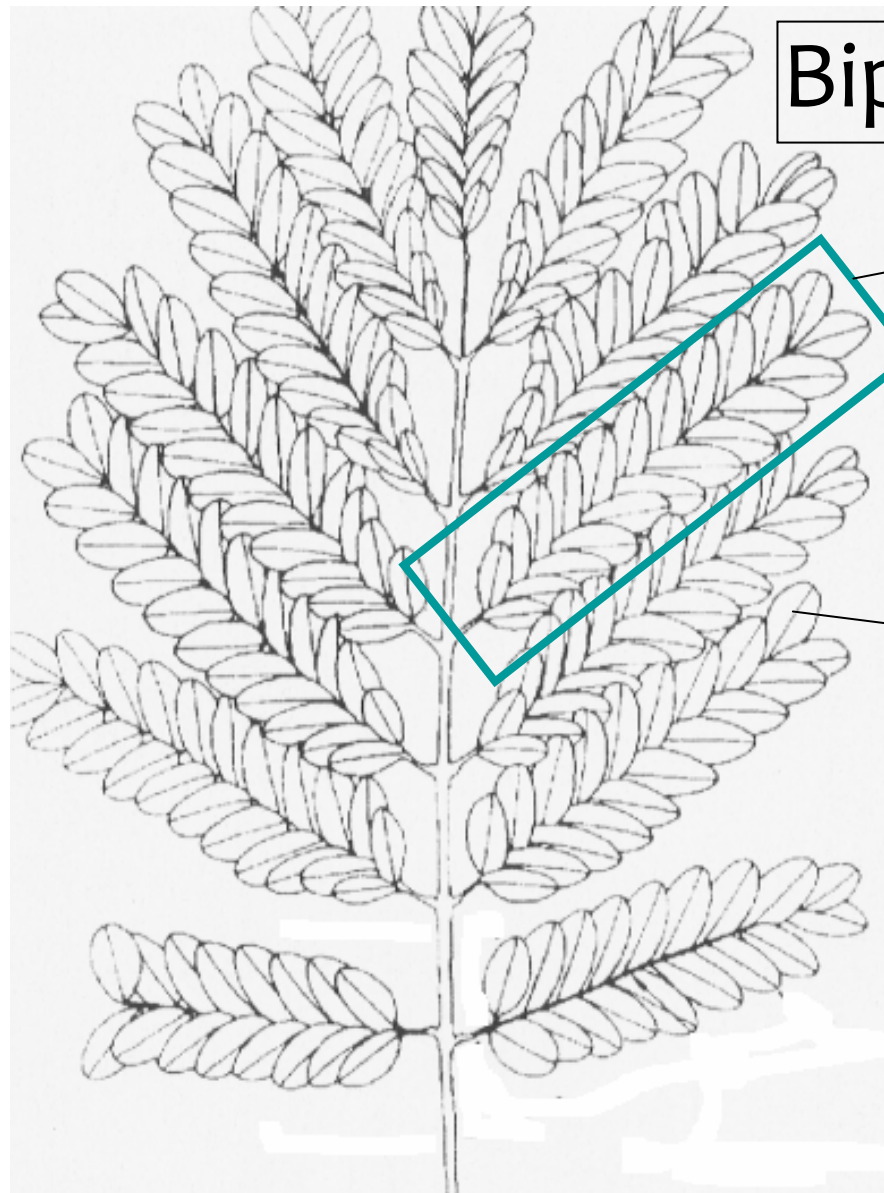
Imparipinada



Paripinada



Variação morfológica (II)



Bipinada

Folíolo

Foliólulo



Geminada

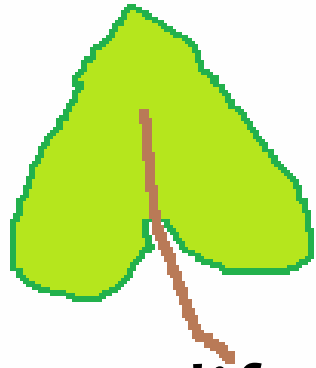
Lanceolada



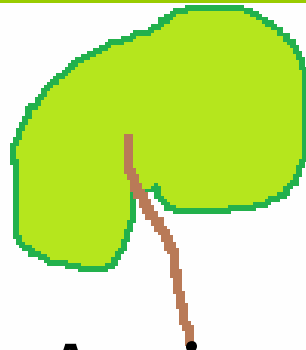
Linear



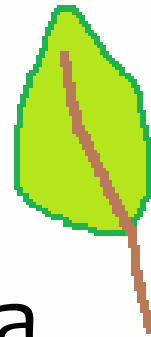
Variação morfológica (III)



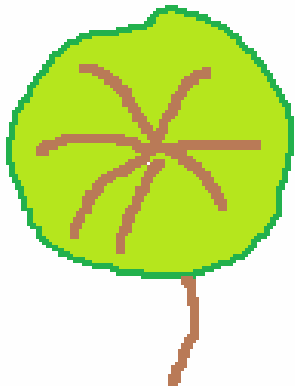
Cordiforme



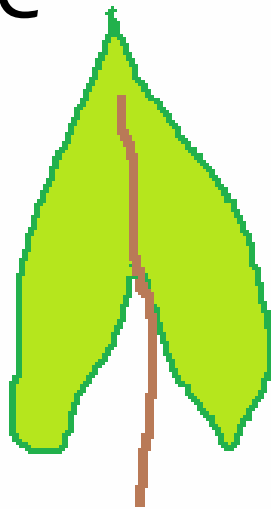
Assimétrica



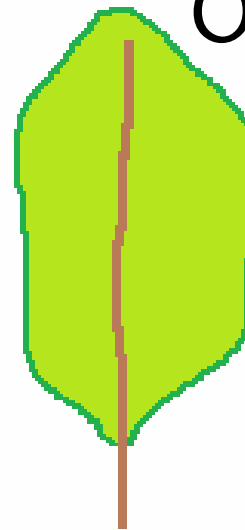
Oval



Orbicular



Sagitada

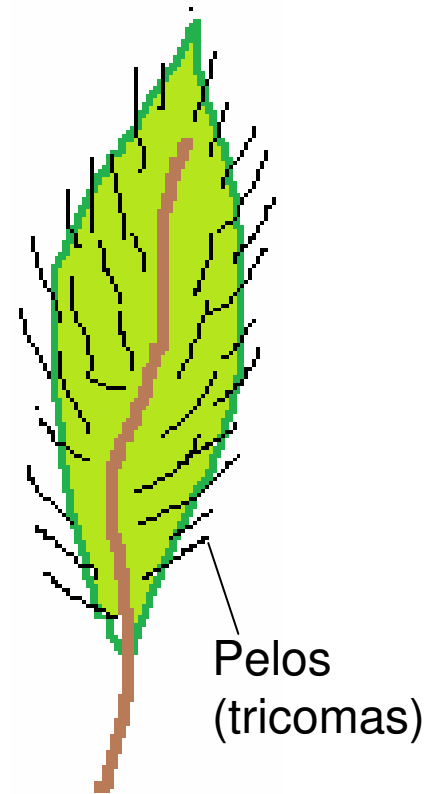
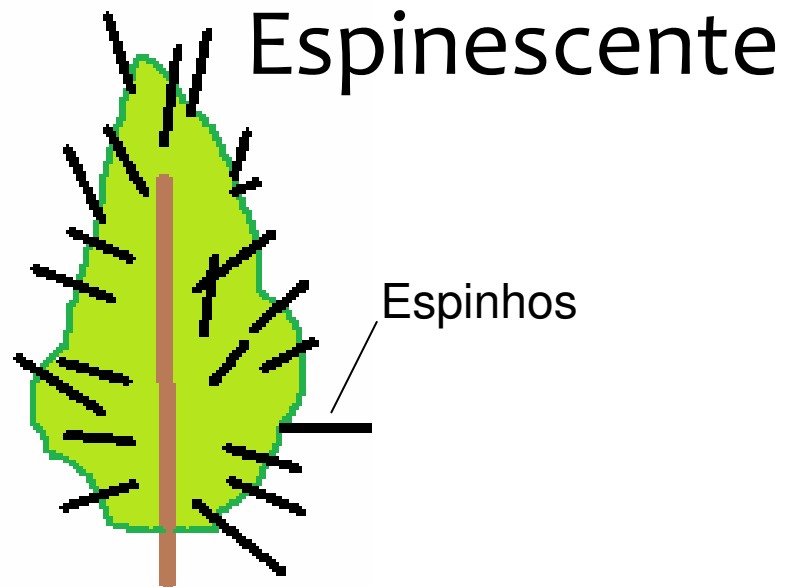


Oblonga

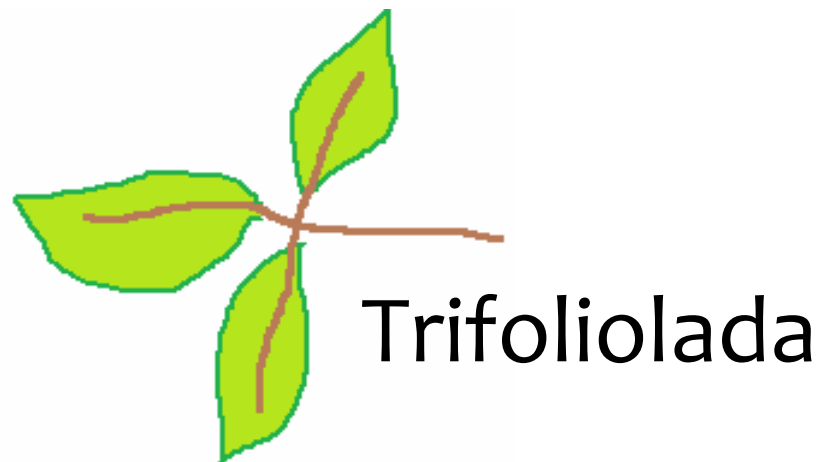
Aciculada



Variação morfológica (IV)



Cletrada



Pilosa



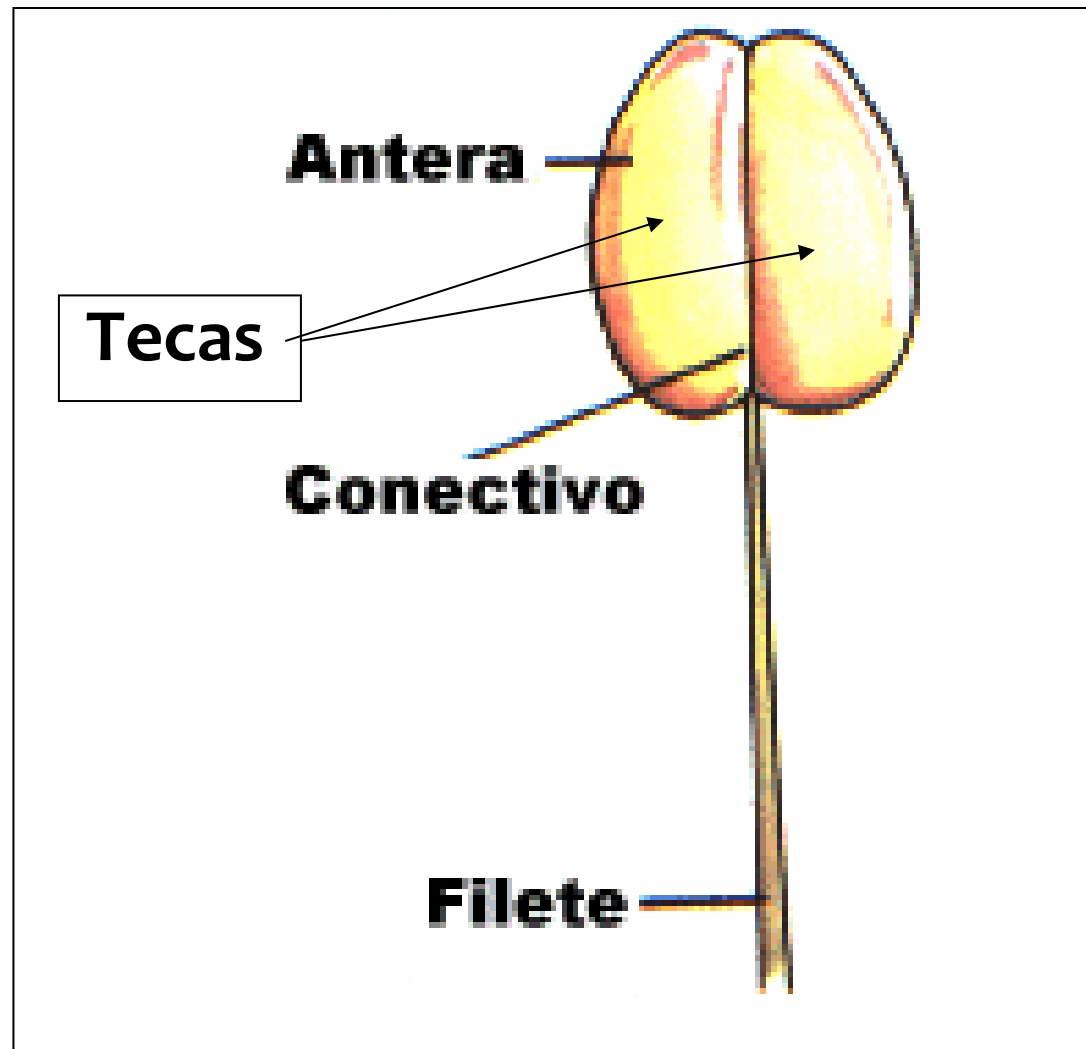
Aparelho reprodutor

- 1. Flores:** órgãos típicos das angiospermas, formadas por estames e pistilos (folhas carpelares).



Androceu: conjunto de estames

Estame: folha modificada com a função de produzir grãos de pólen.

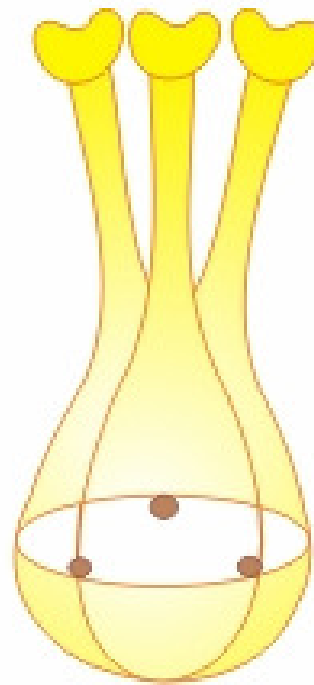


Gineceu: conjunto de carpelos

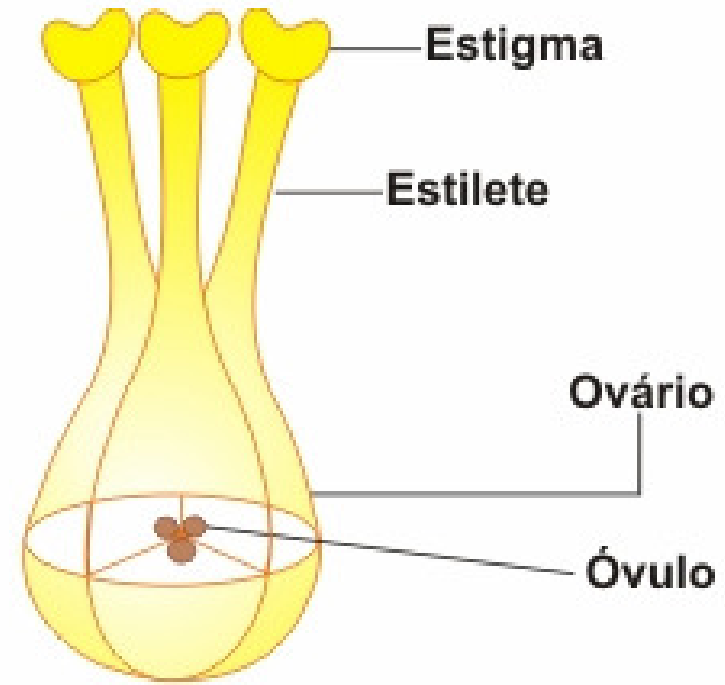
Carpelo (também **pistilo**): folha modificada com a função de produzir óvulos.



Unicarpelar
Unilocular

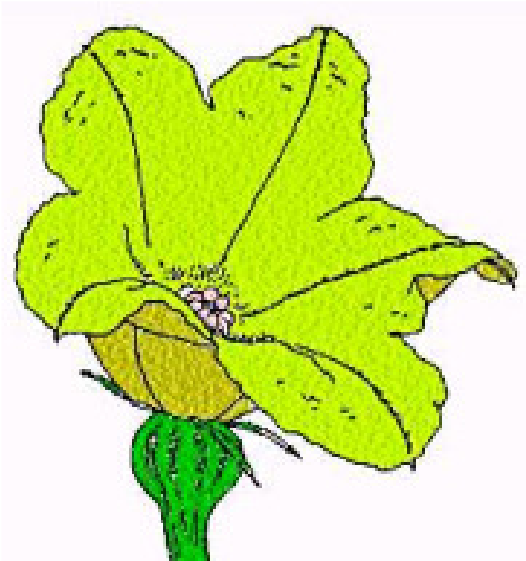


Pluricarpelar
Unilocular

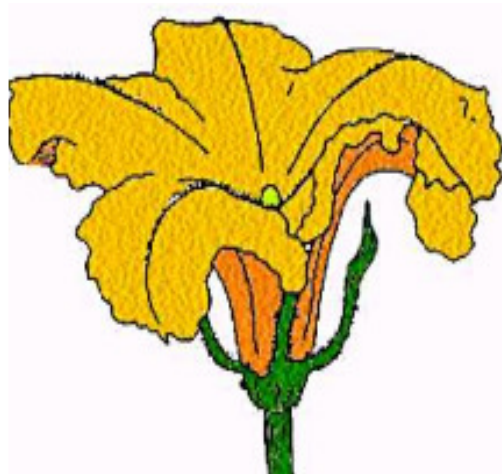


Pluricarpelar
Plurilocular

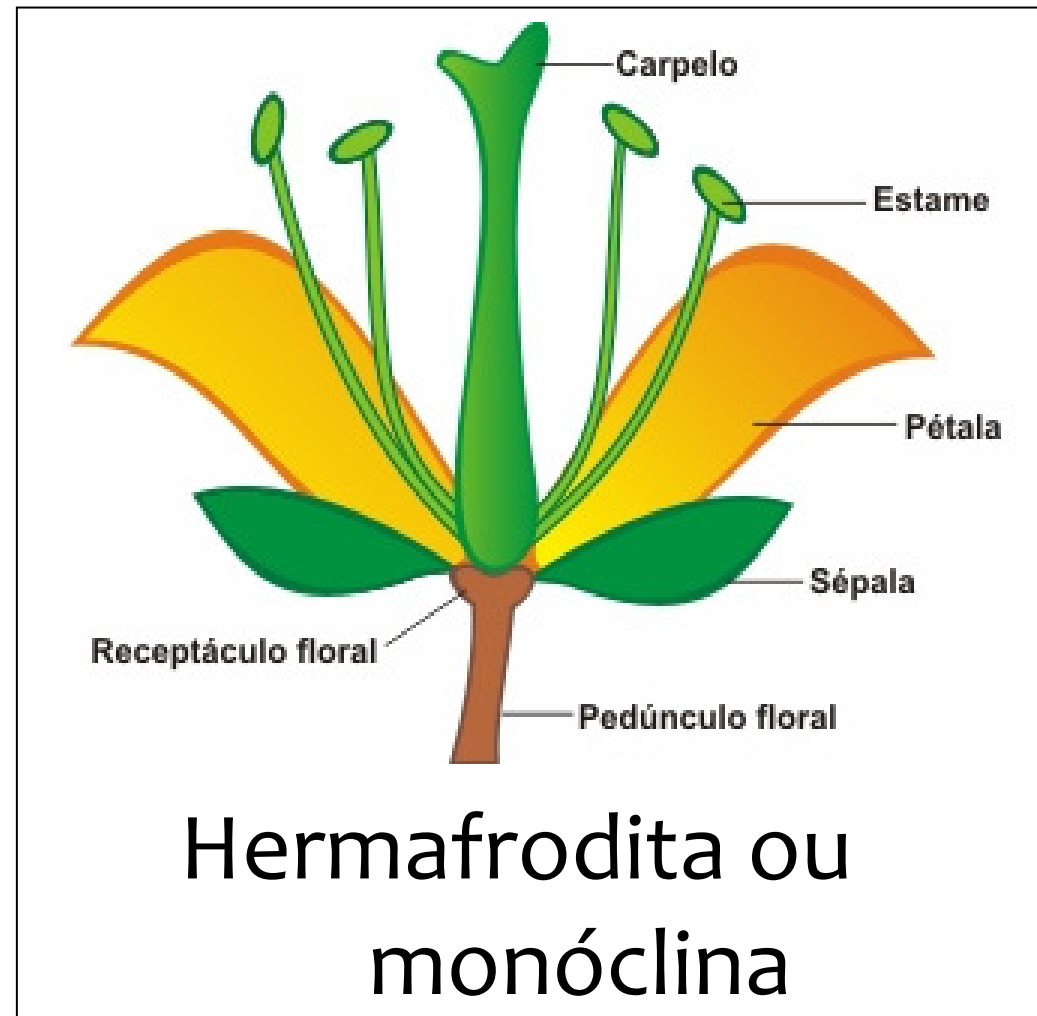
Tipos de flores



Pistilada (feminina)



Estaminada (masculina)



Hermafrodita ou monóclina

Tipos de flores

Isolada



Inflorescência

Inflorescências (I)



Inflorescências (II)

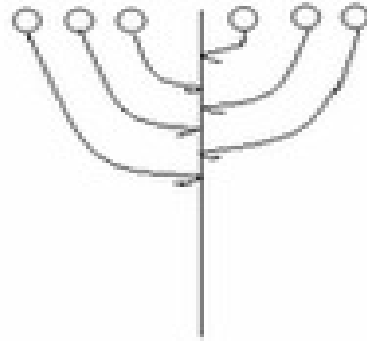


Compare o espádice com a espiga. Verifique as diferenças entre cacho, corimbo, panícula e racemo.





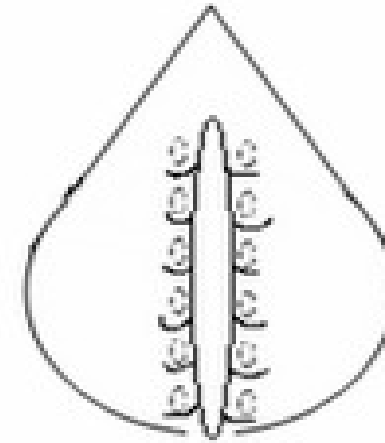
Cacho



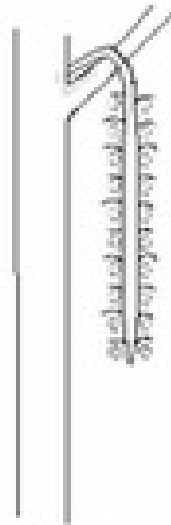
Corimbo



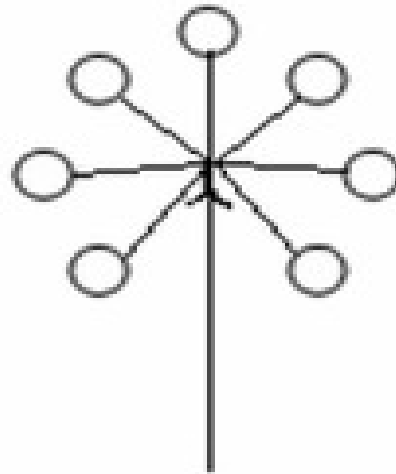
Espiga



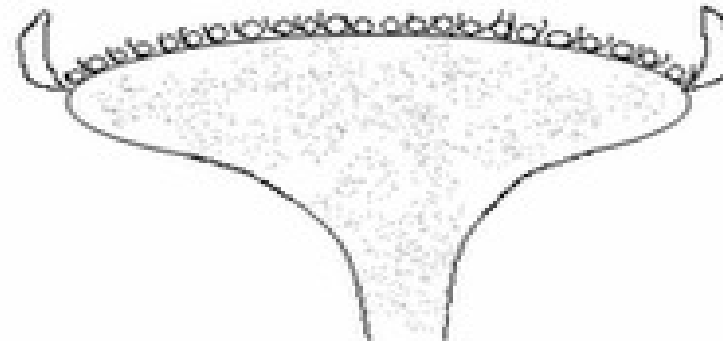
Espádice



Amento



Umbela



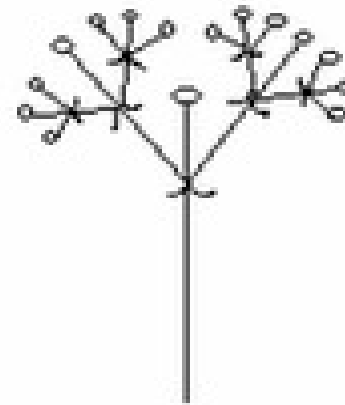
Capítulo



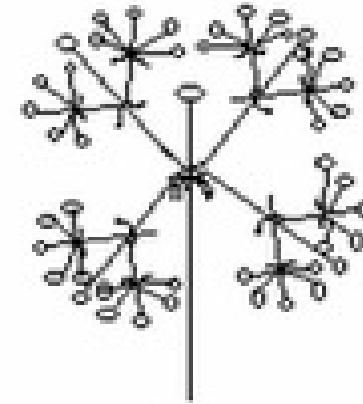
Escorpióide



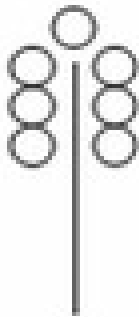
Helicóide



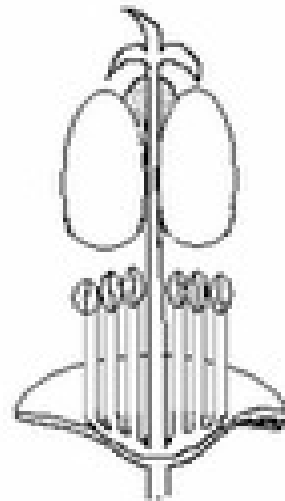
Dicásio



Pleiocásio



Gromérulo



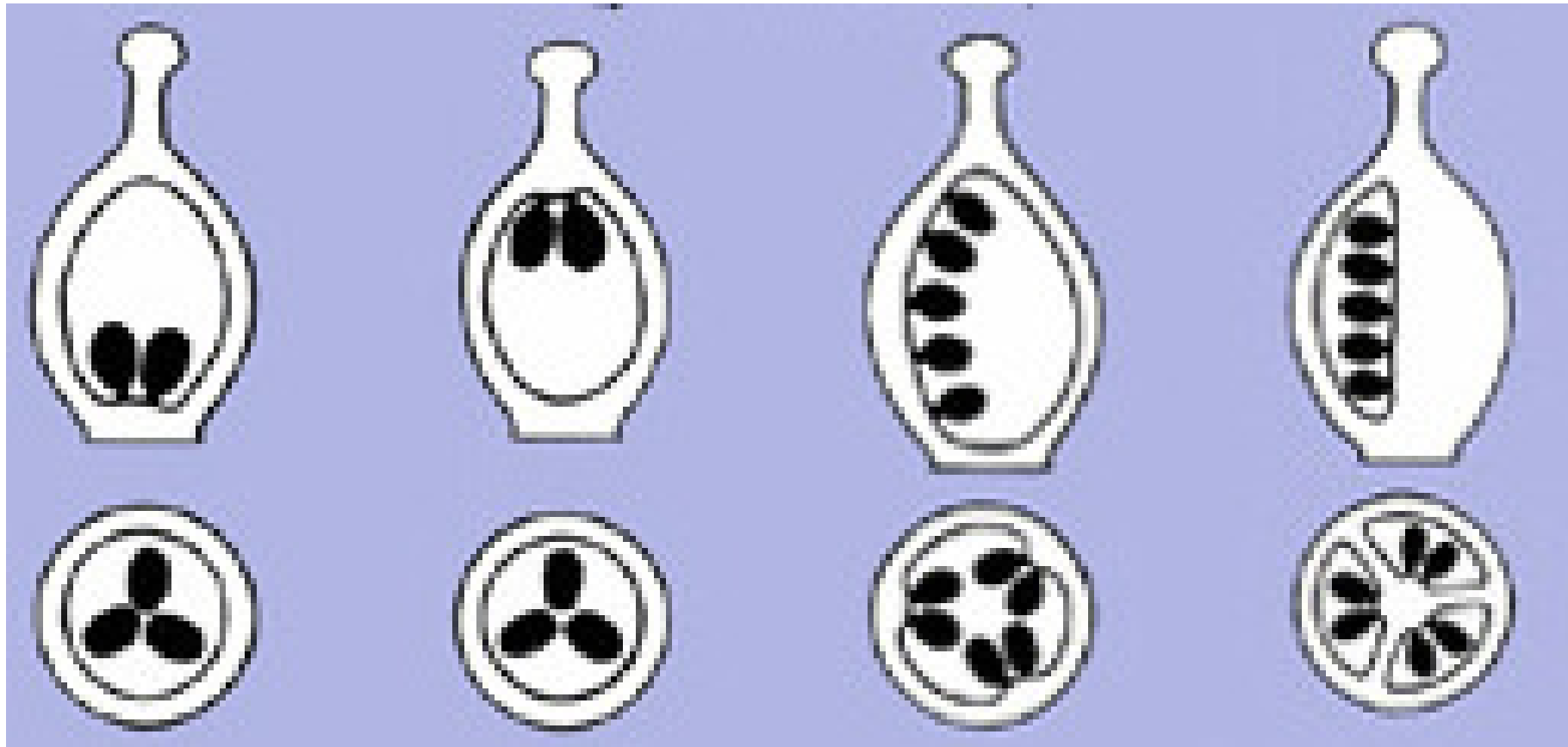
Ciátio



Sicônio

<http://organografiavegetal.blogspot.com.br/2010/02/inflorescencia-indefinida-ou-racimosas.html>

Placentação



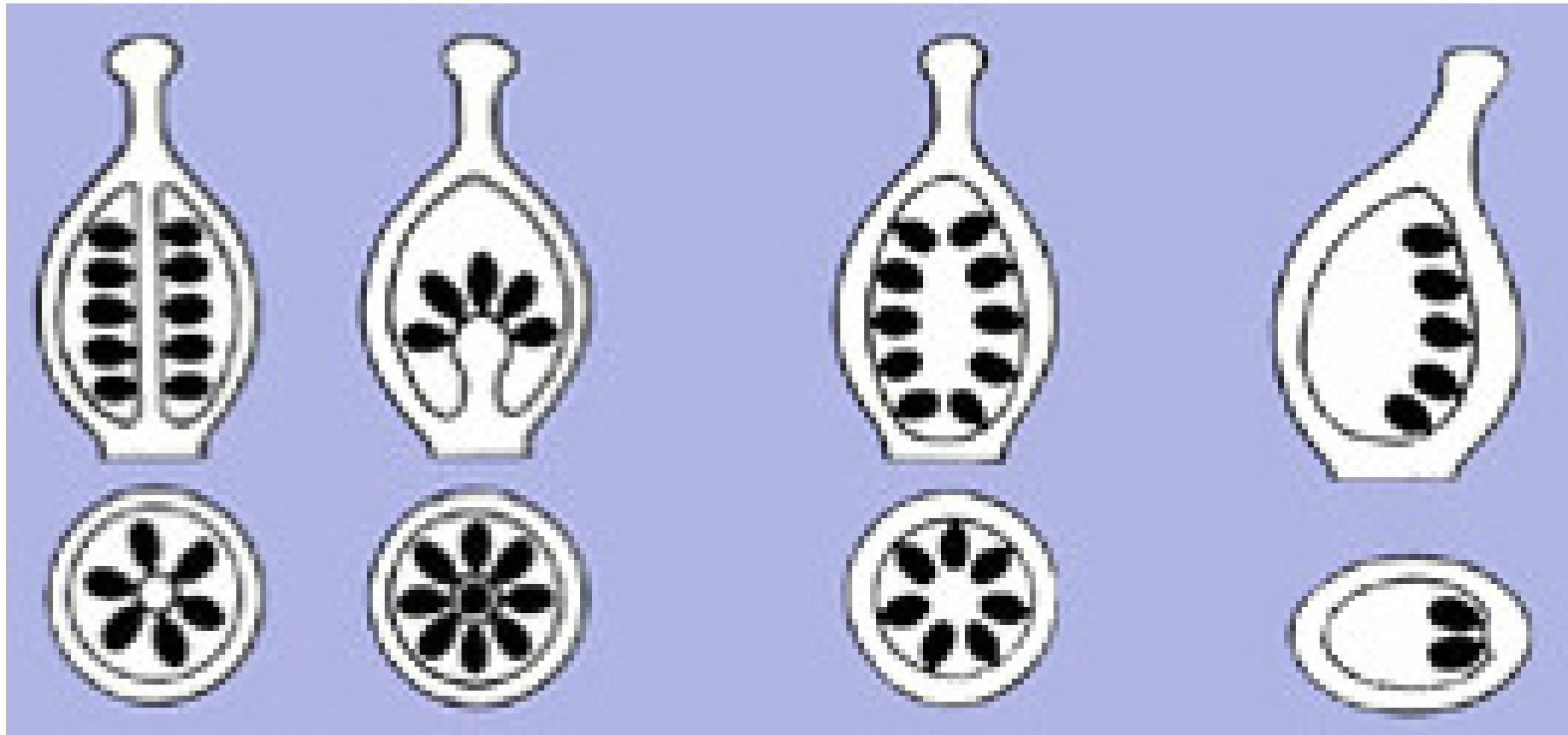
Basal

Apical

Parietal

Axilar

Placentação



Central livre

Dispersa

Marginal