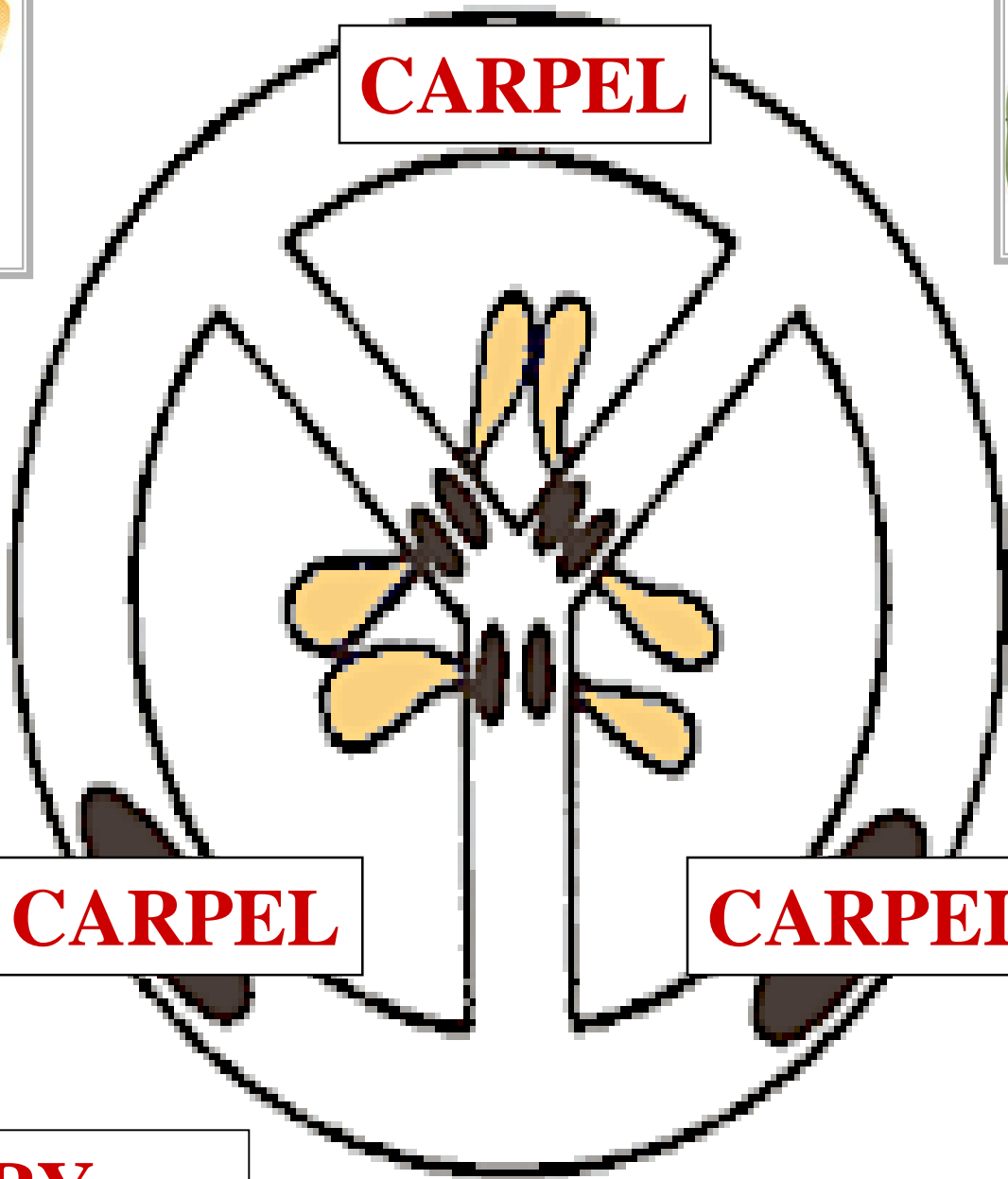


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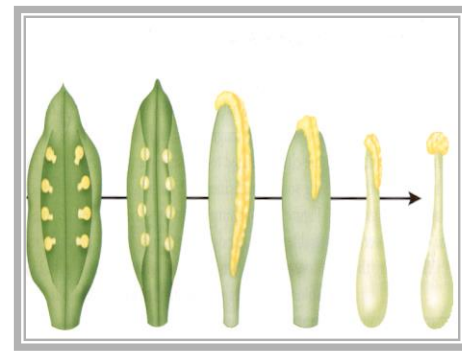
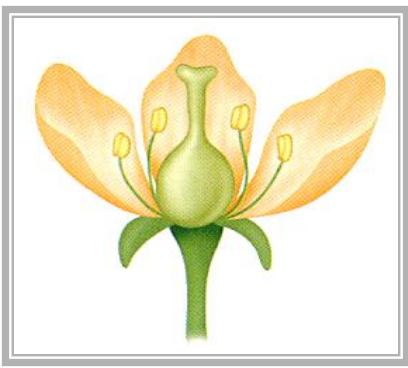
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CARPEL

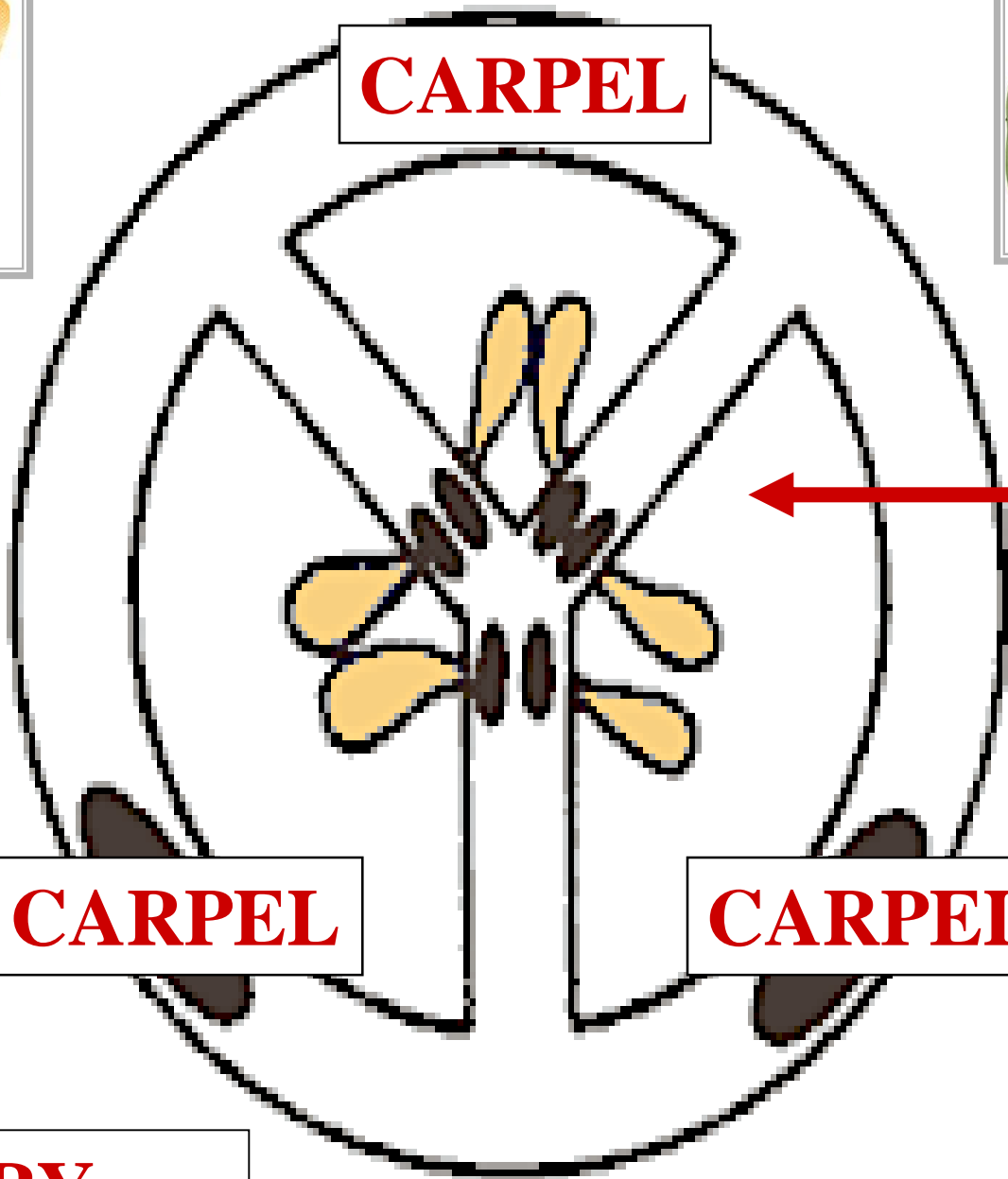
CARPEL

OVARY

C.S.



L



CARPEL

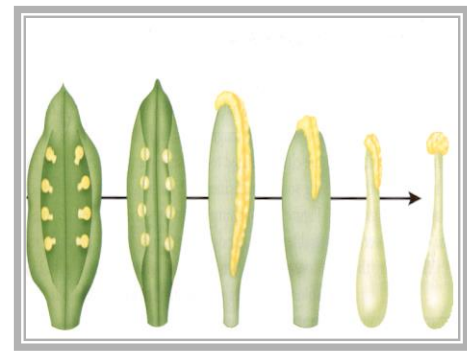
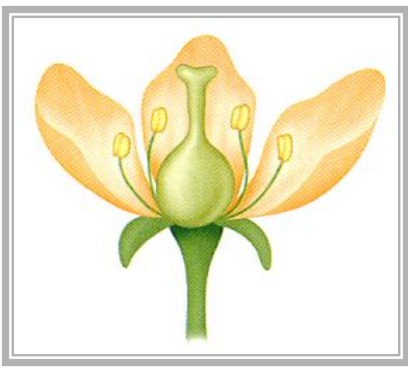
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CARPEL

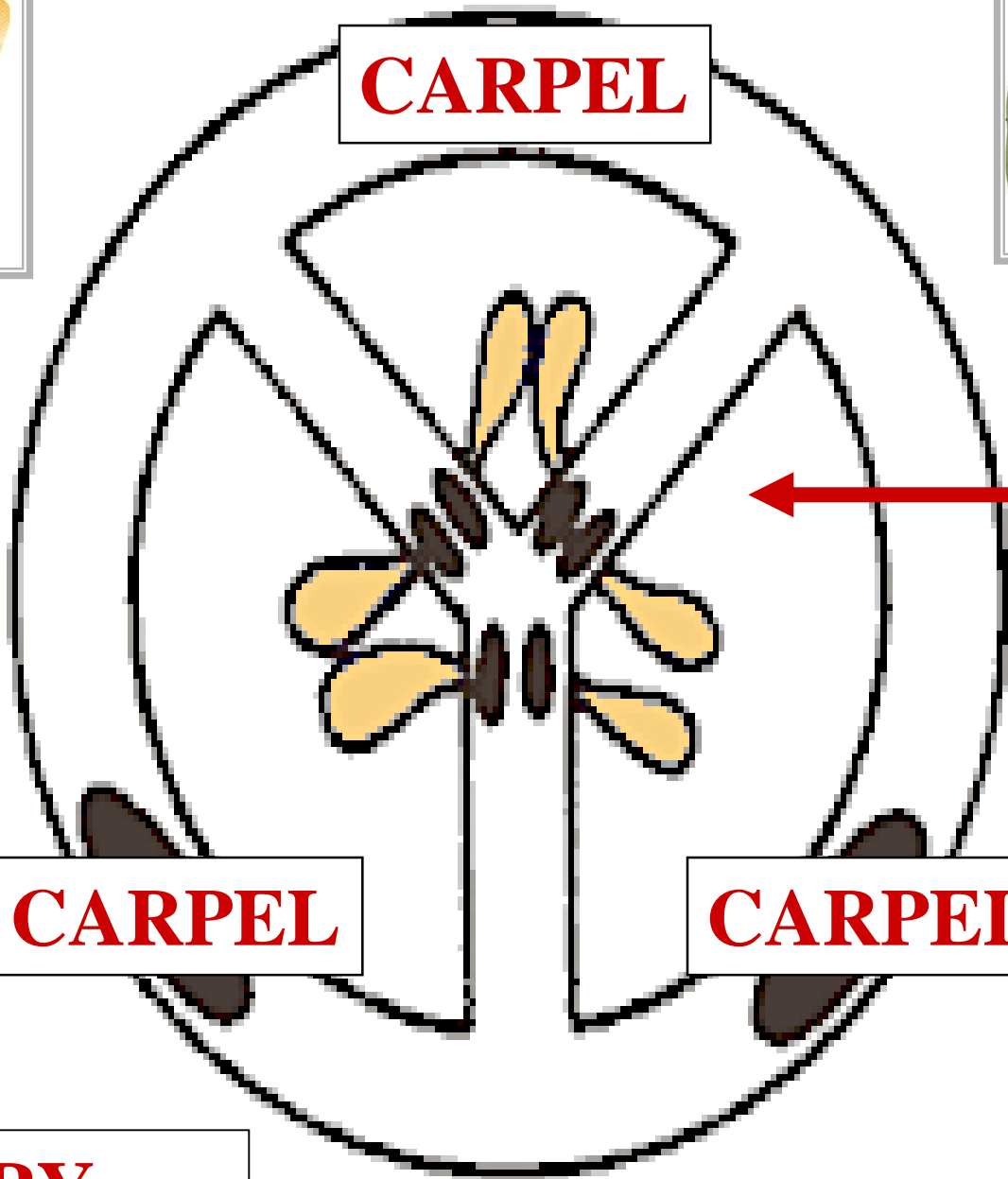
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OVARY

C.S.



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CARPEL

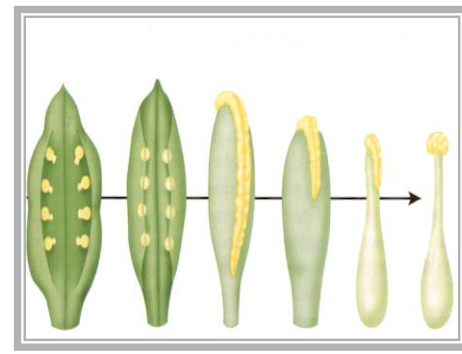
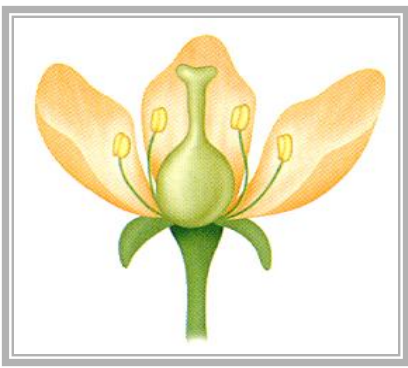
LOCULE

CARPEL

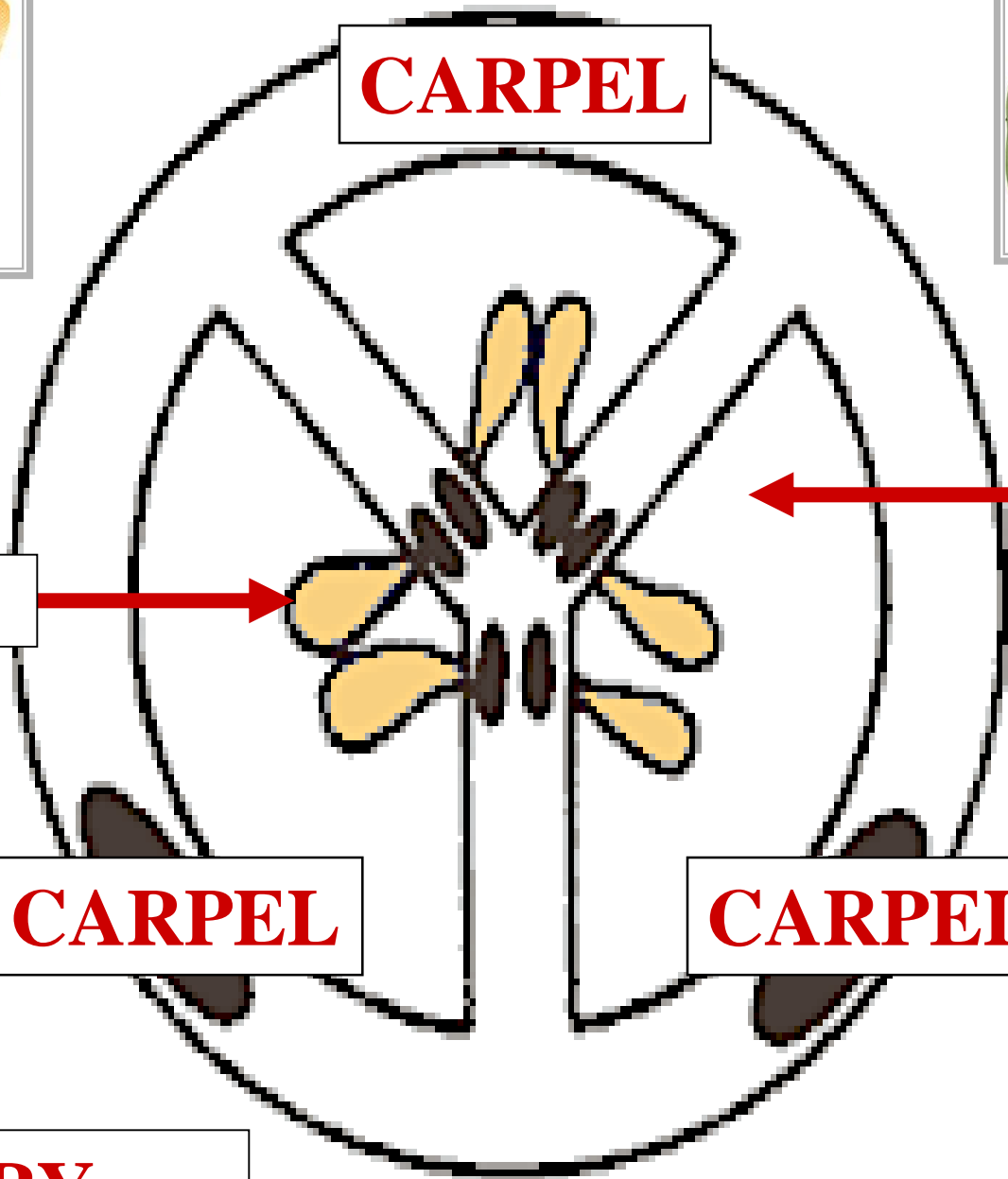
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OVARY

C.S.



O



CARPEL

LOCULE

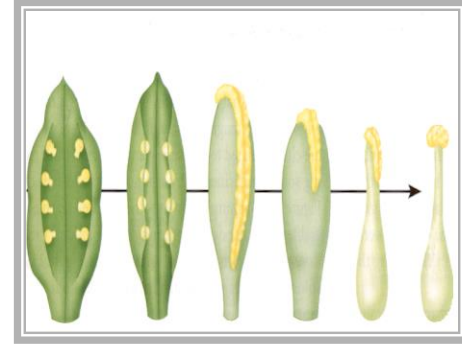
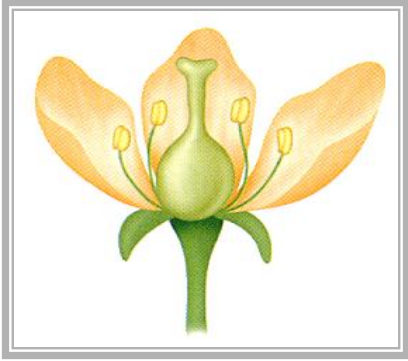
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CARPEL

CARPEL

OVARY

C.S.



OVULE



LOCULE

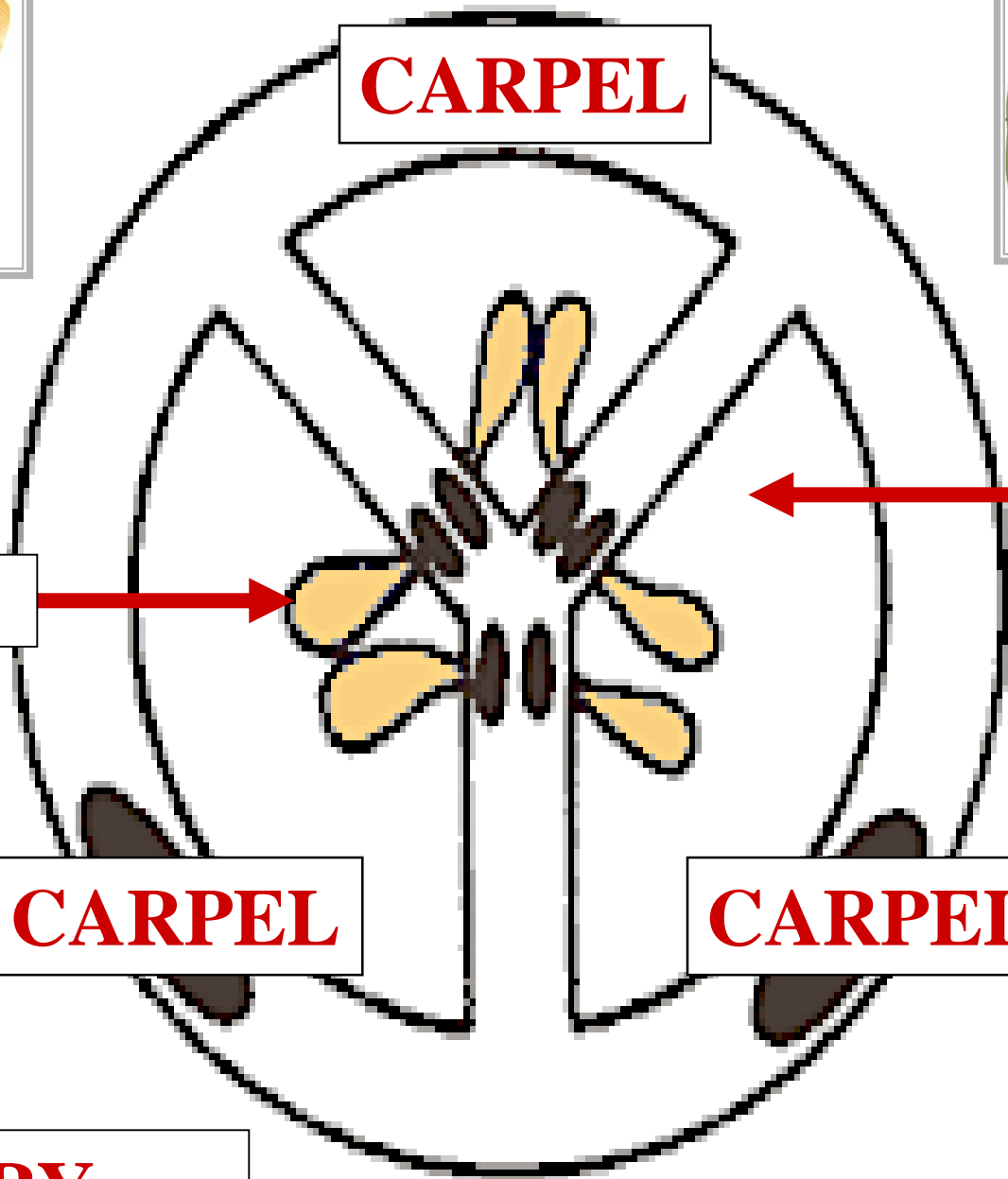


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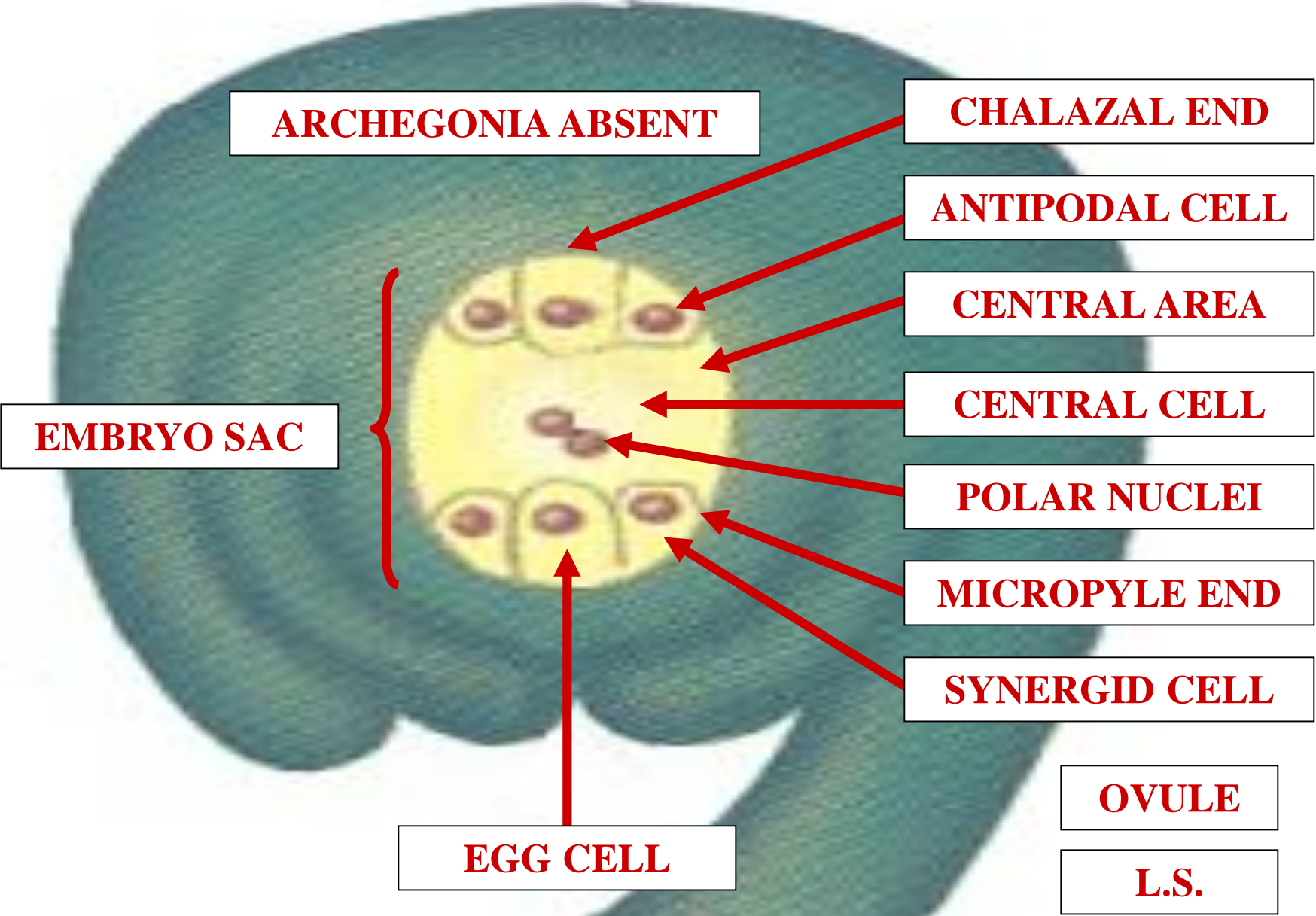
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OVARY

C.S.



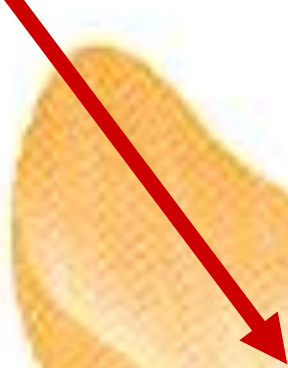
POLYGONUM EMBRYO SAC



ANGIOSPERM FLOWER



ANTHER



PISTIL



STAMEN



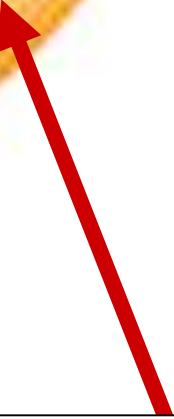
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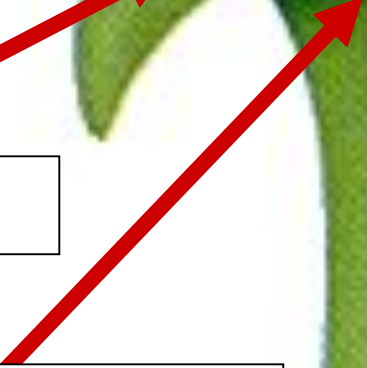
PERIANTH



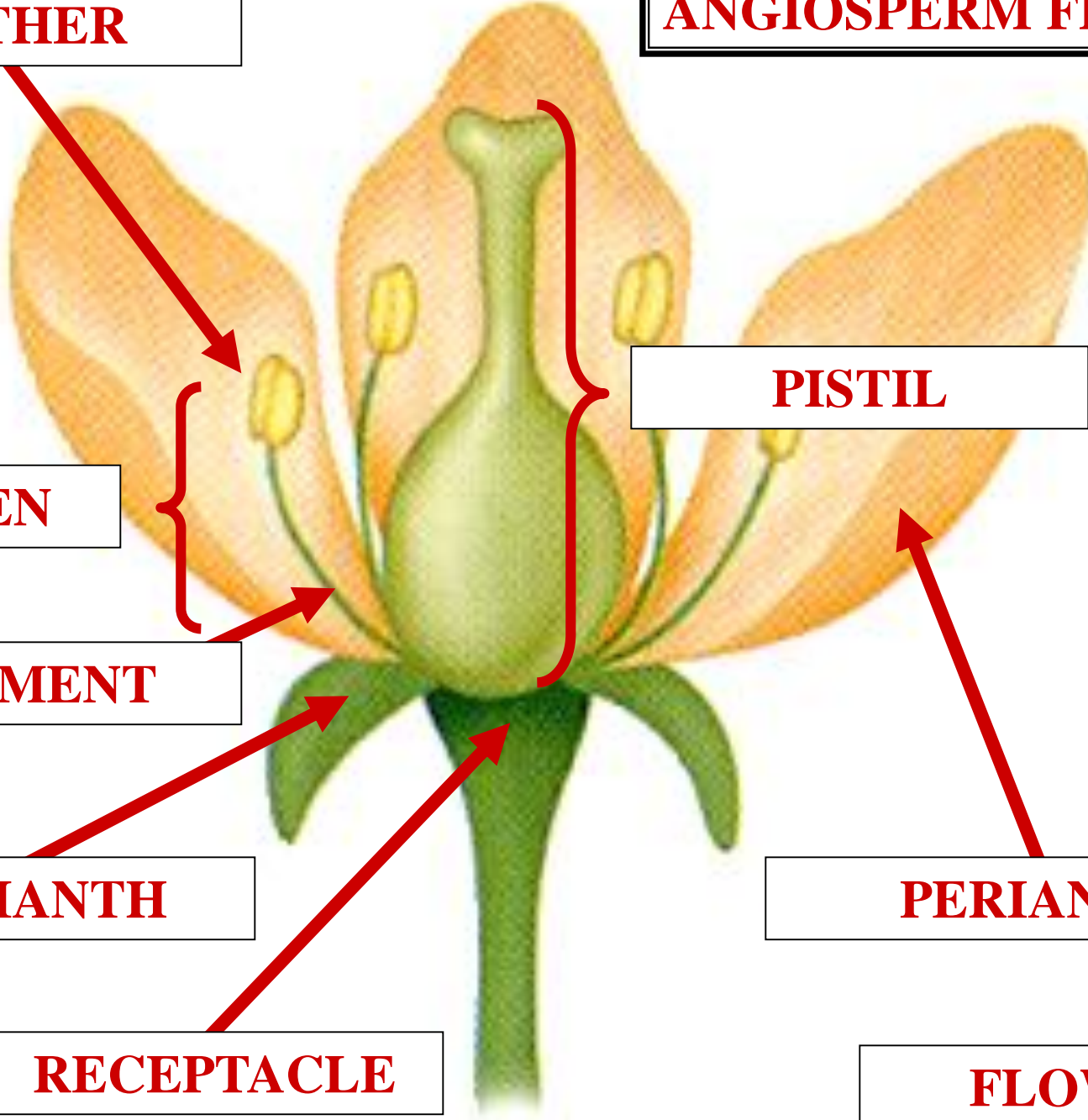
PERIANTH



RECEPTACLE



FLOWER





SEX CONDITION

**PERFECT
FLOWER
VS
IMPERFECT
FLOWER**

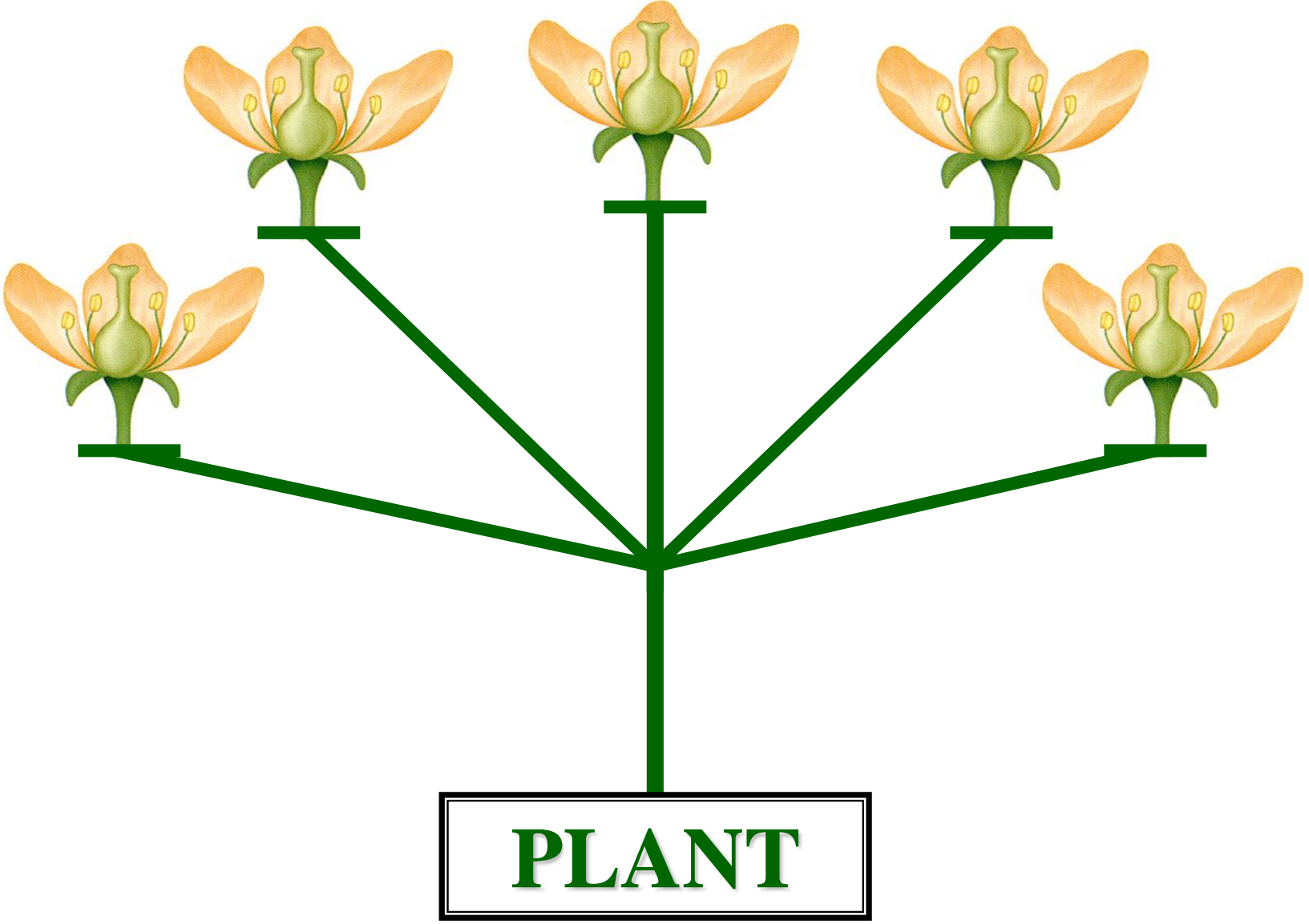
PERFECT FLOWER



**ANGIOSPERM
PERFECT FLOWER**

**ANDROCECIUM
AND
GYNOECIUM
PRESENT**

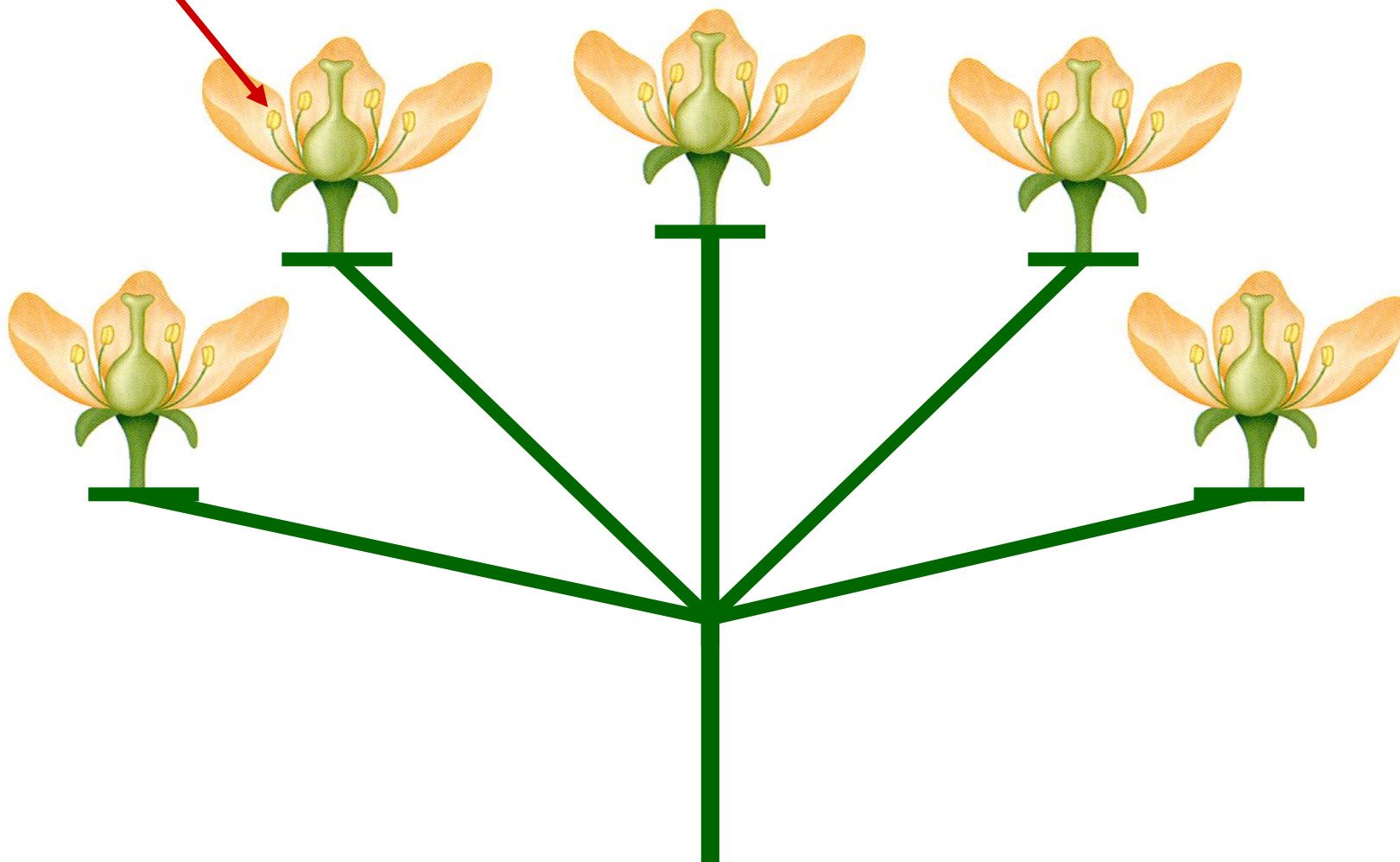
**ANGIOSPERM
PERFECT FLOWER**



G

PR

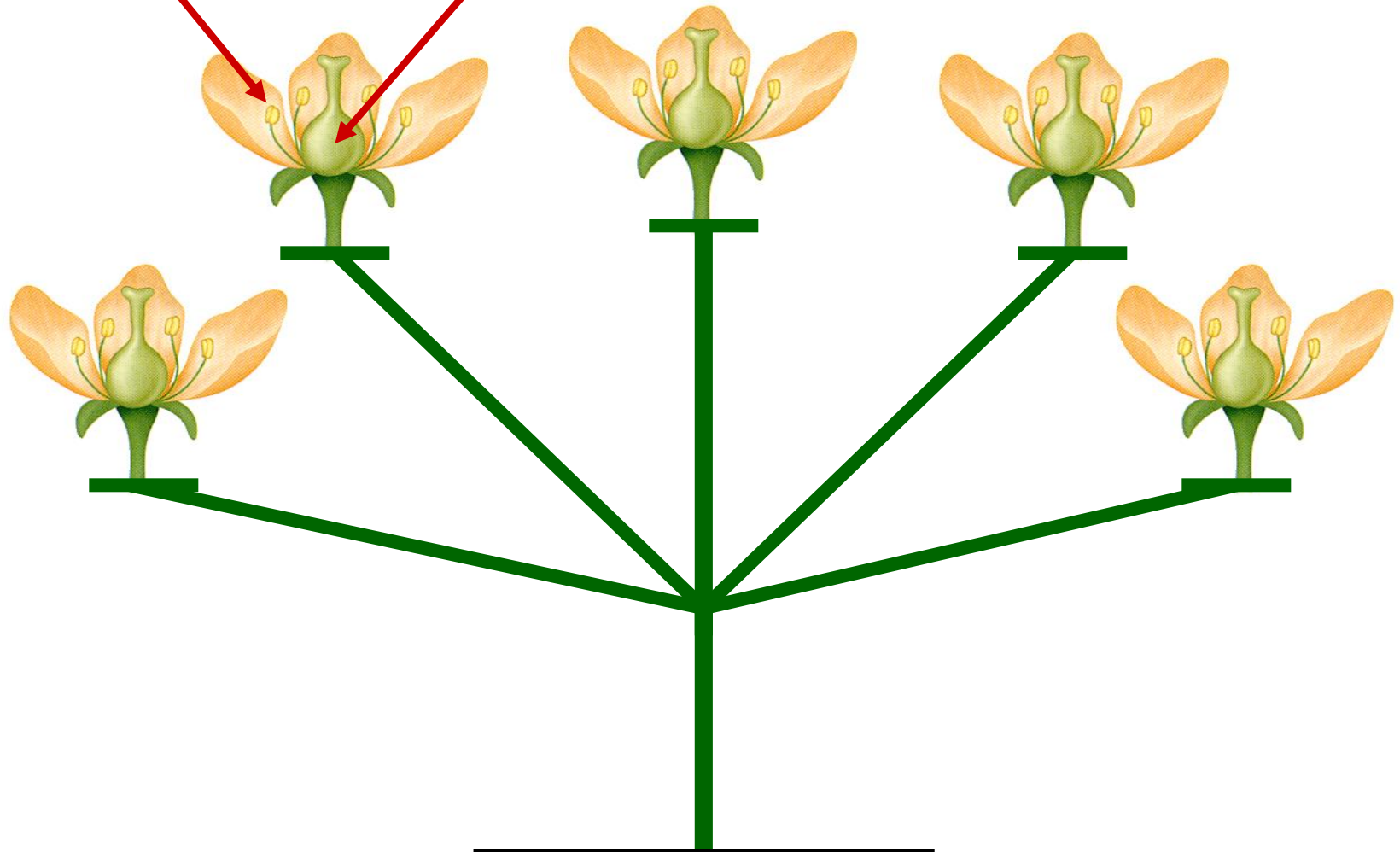
ANDROECIUM



PLANT

ANDROECIUM

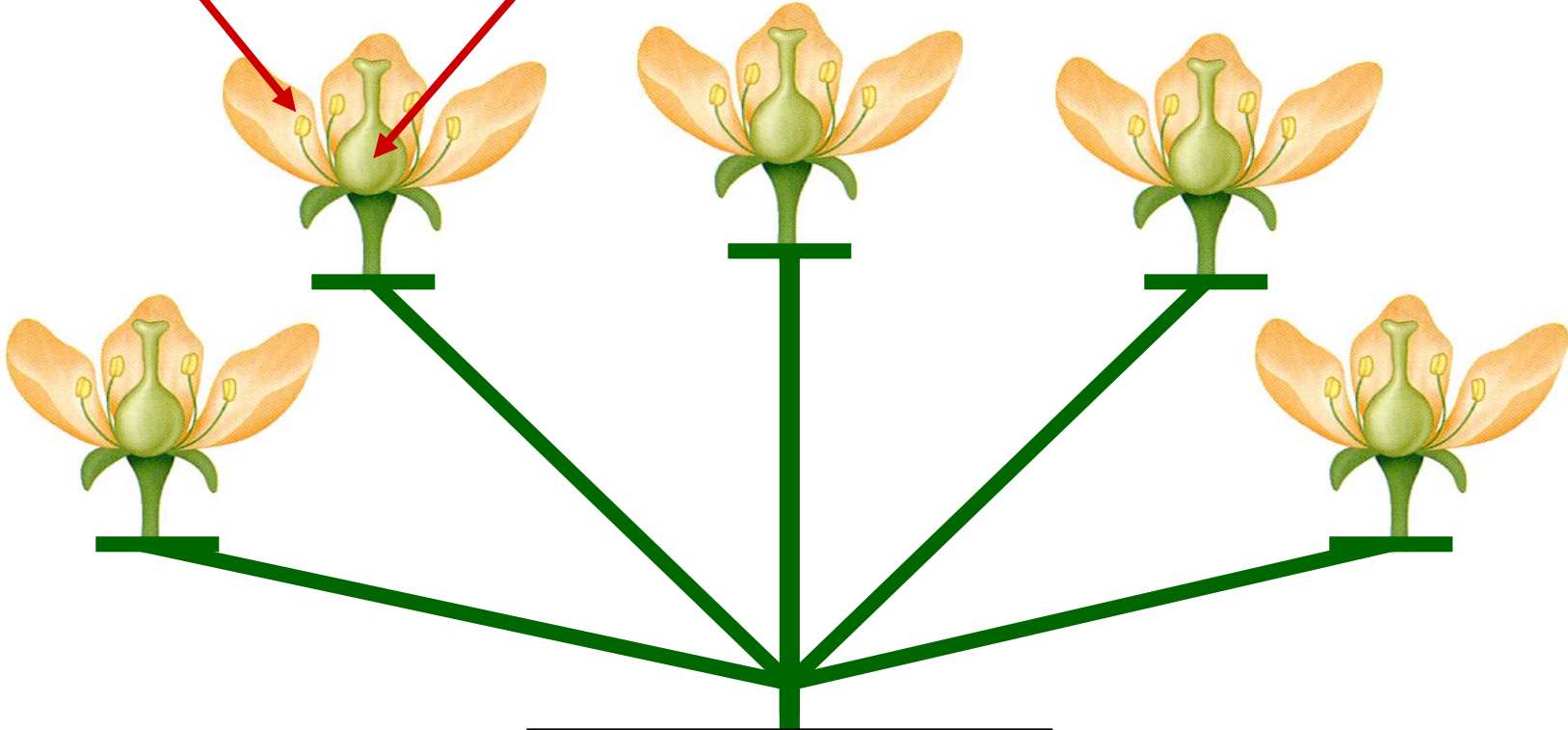
GYNOECIUM



PLANT

ANDROECIUM

GYNOECIUM



**PERFECT
FLOWERS**

PLANT

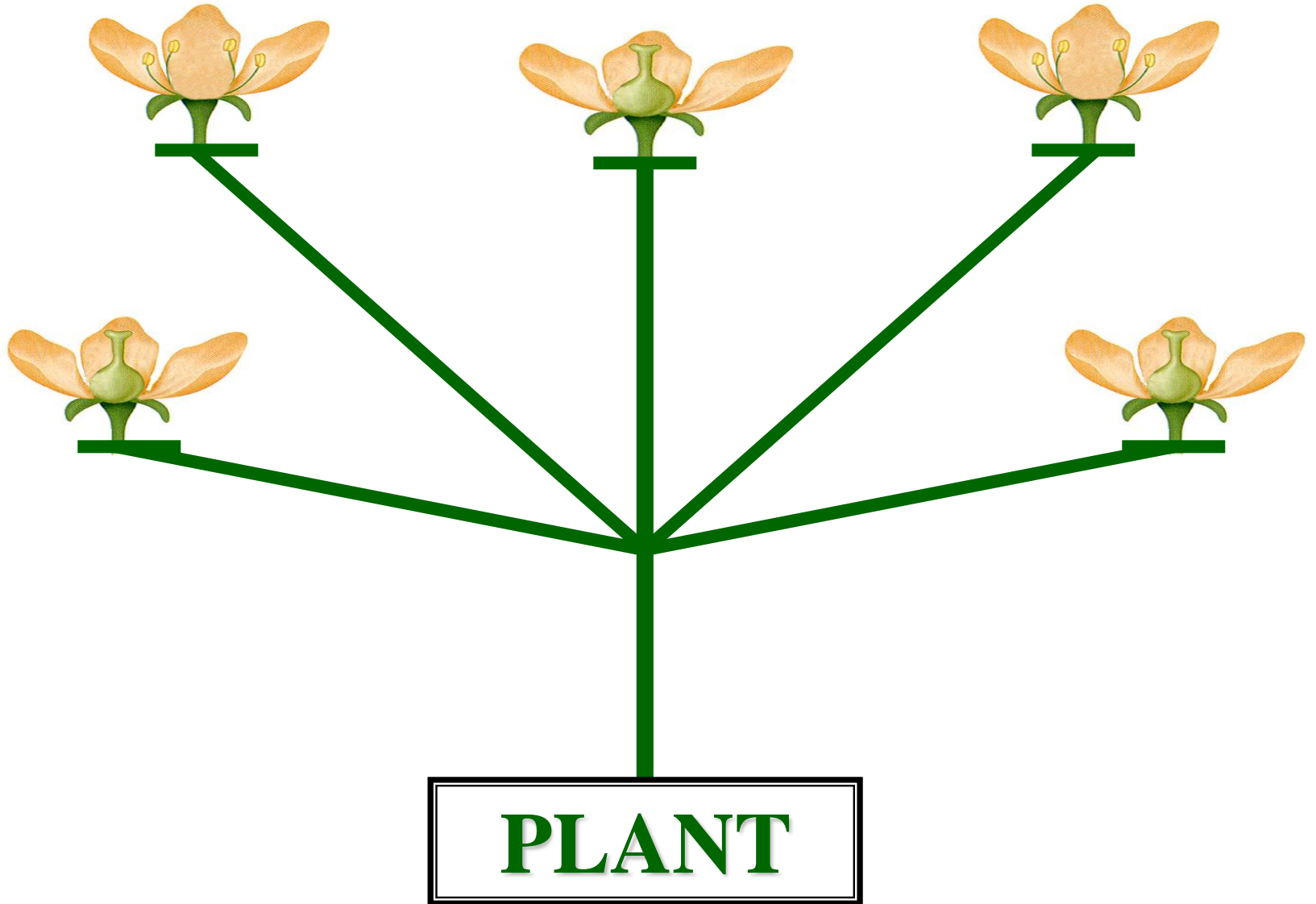
IMPERFECT FLOWER



**ANGIOSPERM
PERFECT FLOWER**

**ANDROCECIUM
OR
GYNOECIUM
ABSENT**

**ANGIOSPERM
PERFECT FLOWER**

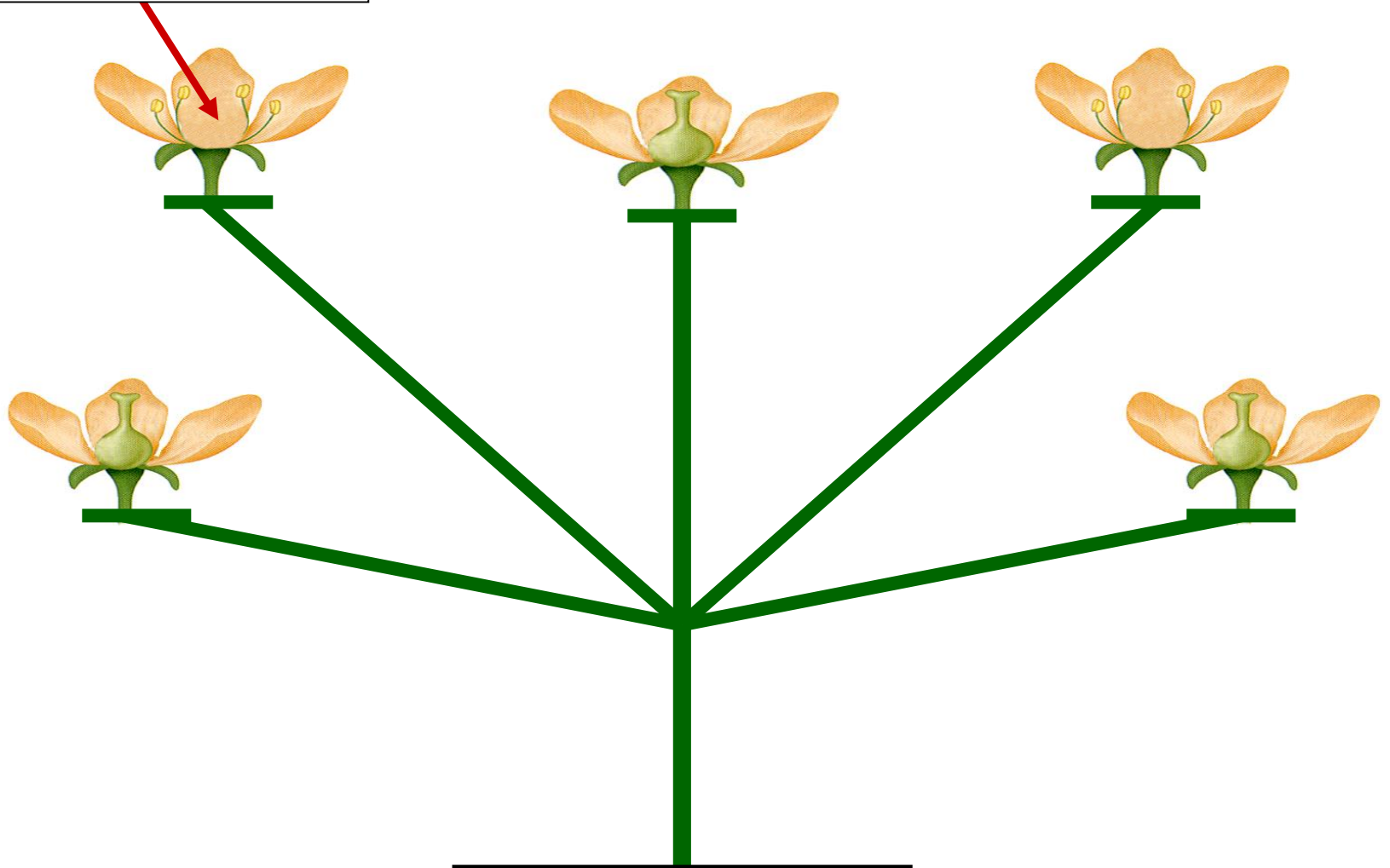


PLANT

**GYNOECIUM
ABSENT**

A

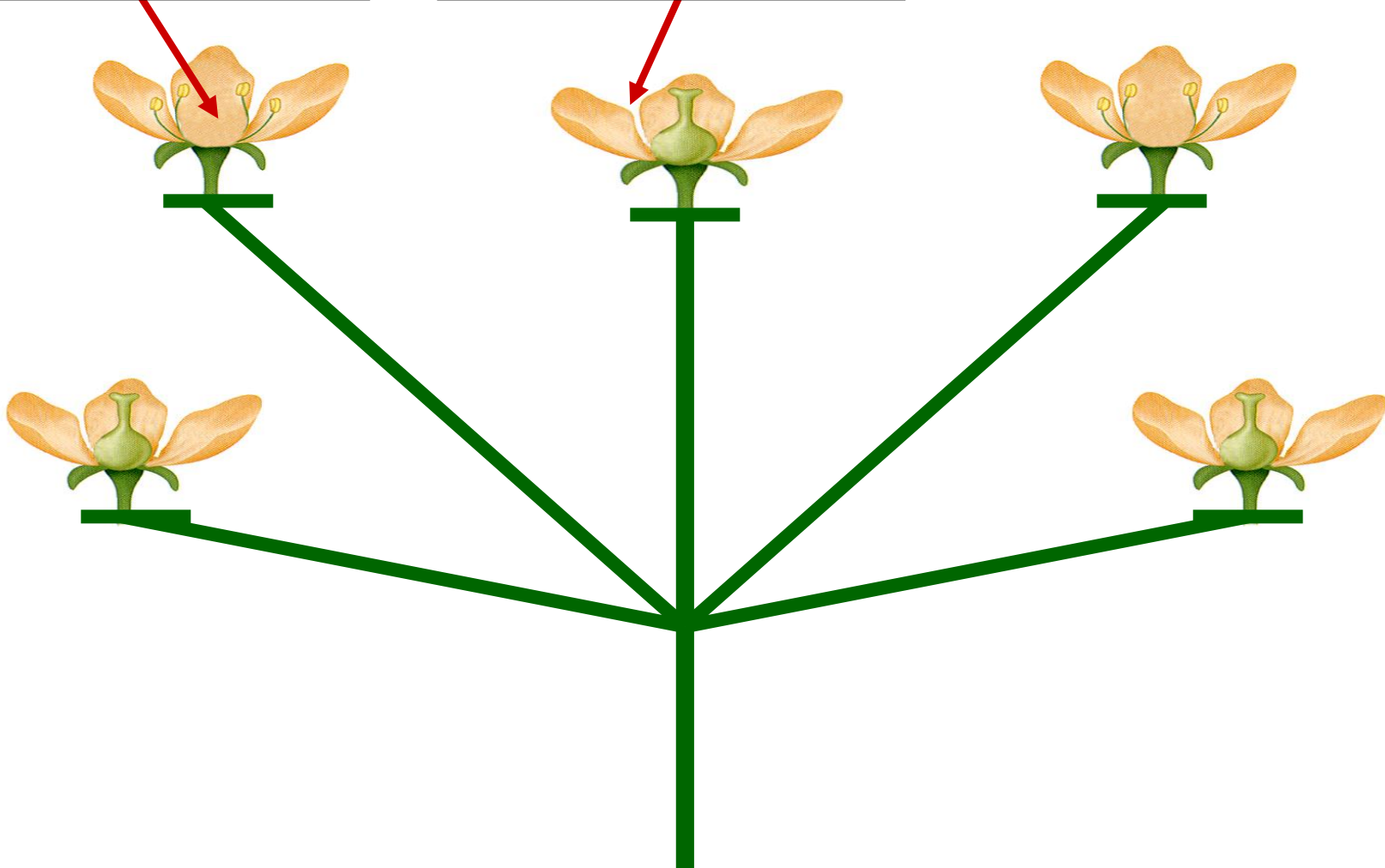
AB



PLANT

**GYNOECIUM
ABSENT**

**ANDROECIUM
ABSENT**

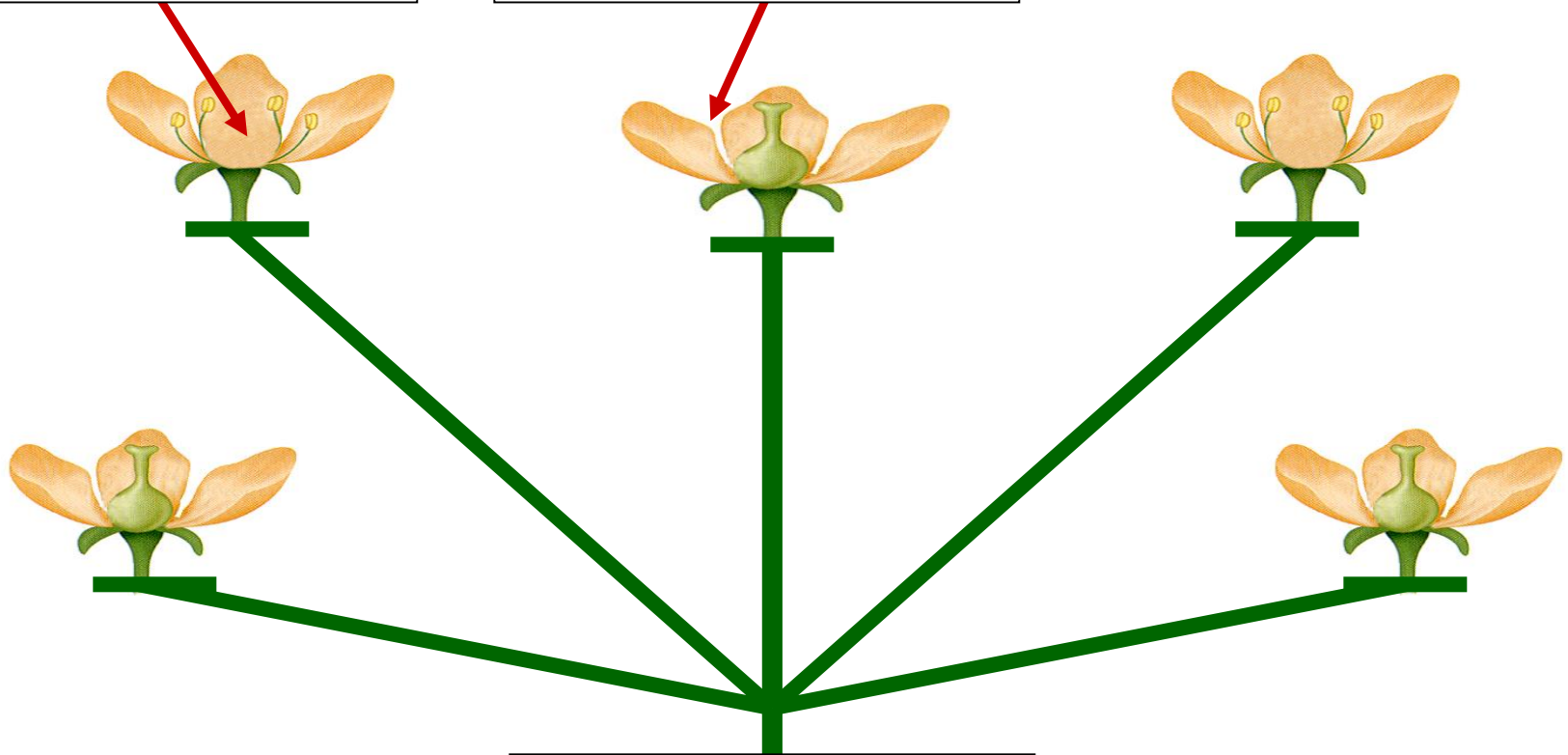


PLANT



**GYNOECIUM
ABSENT**

**ANDROECIUM
ABSENT**



**IMPERFECT
FLOWERS**

PLANT

MONOECIOUS

VS

DIOECIOUS

VS

POLYGAMOUS

MONOECEIOUS



**ANGIOSPERM
MONOECIOUS FLOWER**

IMPERFECT FLS ON 1 PLT

**ANGIOSPERM
MONOECIOUS FLOWER**

**ANGIOSPERM
MONOECIOUS FLOWER**

STAMINATE FLOWERS

AND

PISTILATE FLOWERS

SAME PLANT

**ANGIOSPERM
MONOECIOUS FLOWER**

DIOECIOUS



**ANGIOSPERM
DIOECIOUS FLOWER**

IMPERFECT FLS ON 2 PLTS

**ANGIOSPERM
DIOECIOUS FLOWER**

ANGIOSPERM
DIOECIOUS FLOWER
STAMINATE FLOWERS
AND
PISTILATE FLOWERS
DIFFERENT PLANTS

ANGIOSPERM
DIOECIOUS FLOWER

POLYGAMOUS

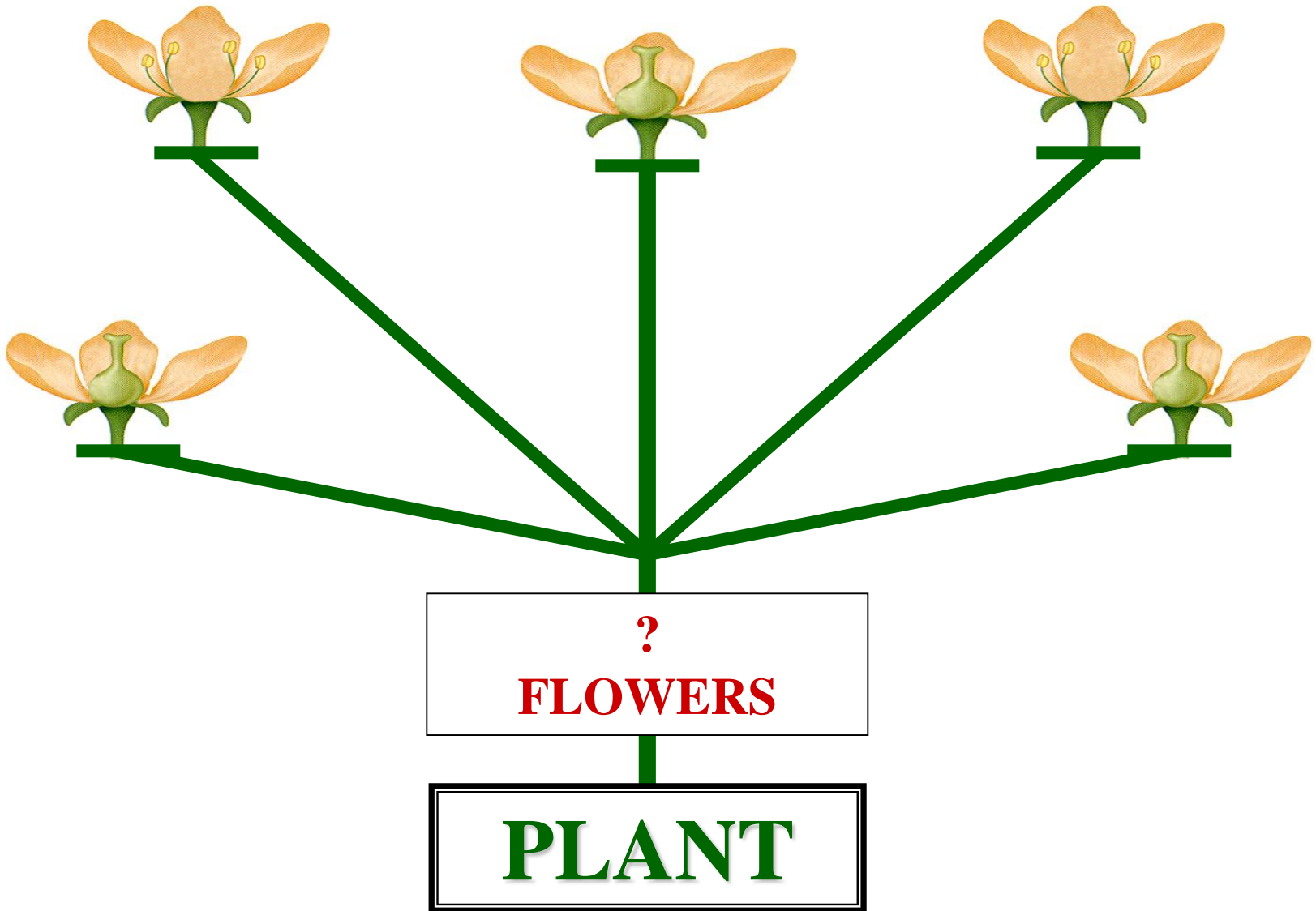
**ANGIOSPERM
POLYGAMOUS FLOWER**

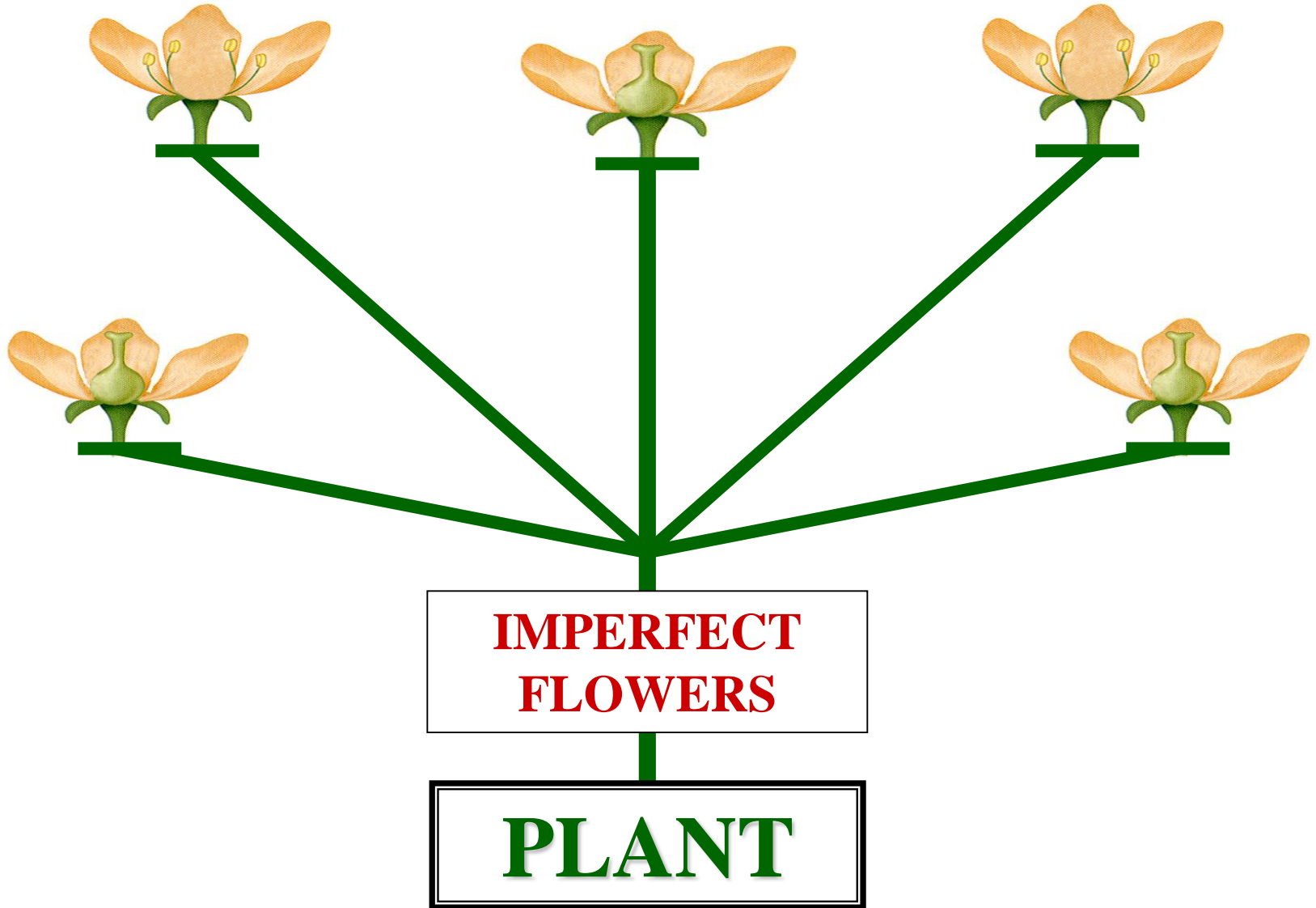
**PERFECT FLOWERS
AND
IMPERFECT FLOWERS
SAME PLANT**

**ANGIOSPERM
POLYGAMOUS FLOWER**

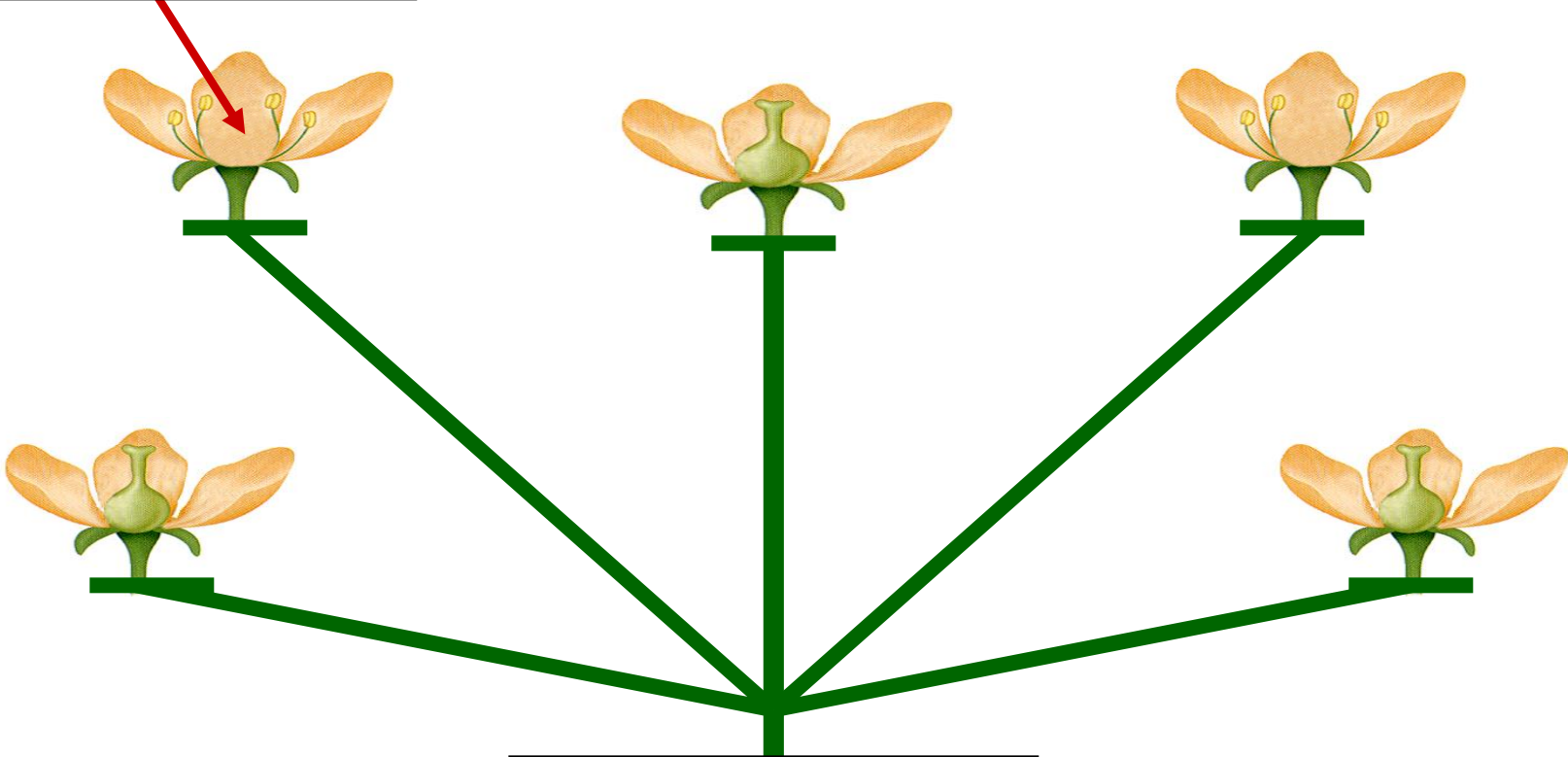


MONOECIOUS
DIOECIOUS
POLYGAMOUS
APPLIED





**STAMINATE
FLOWER**



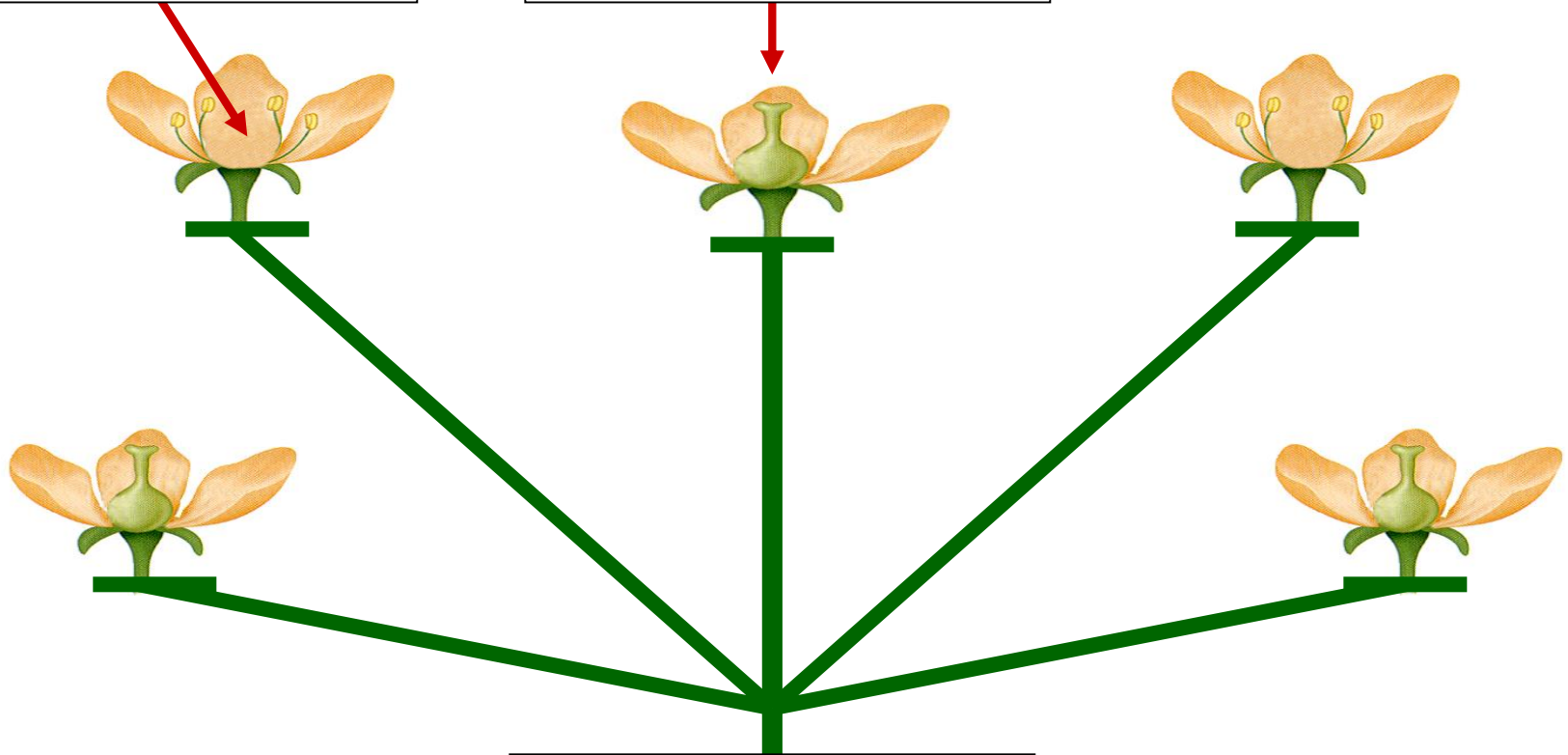
**IMPERFECT
FLOWERS**

PLANT



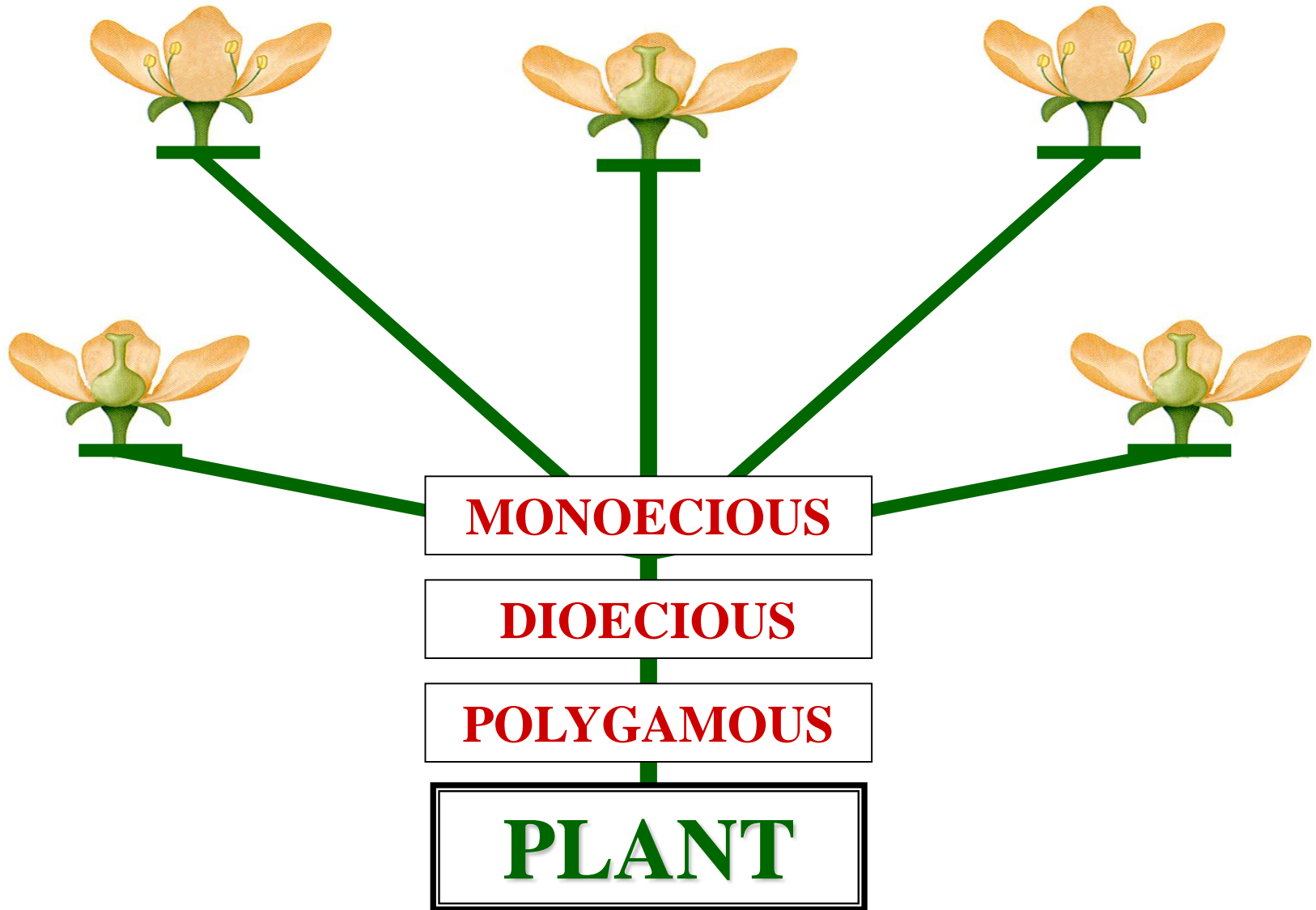
**STAMINATE
FLOWER**

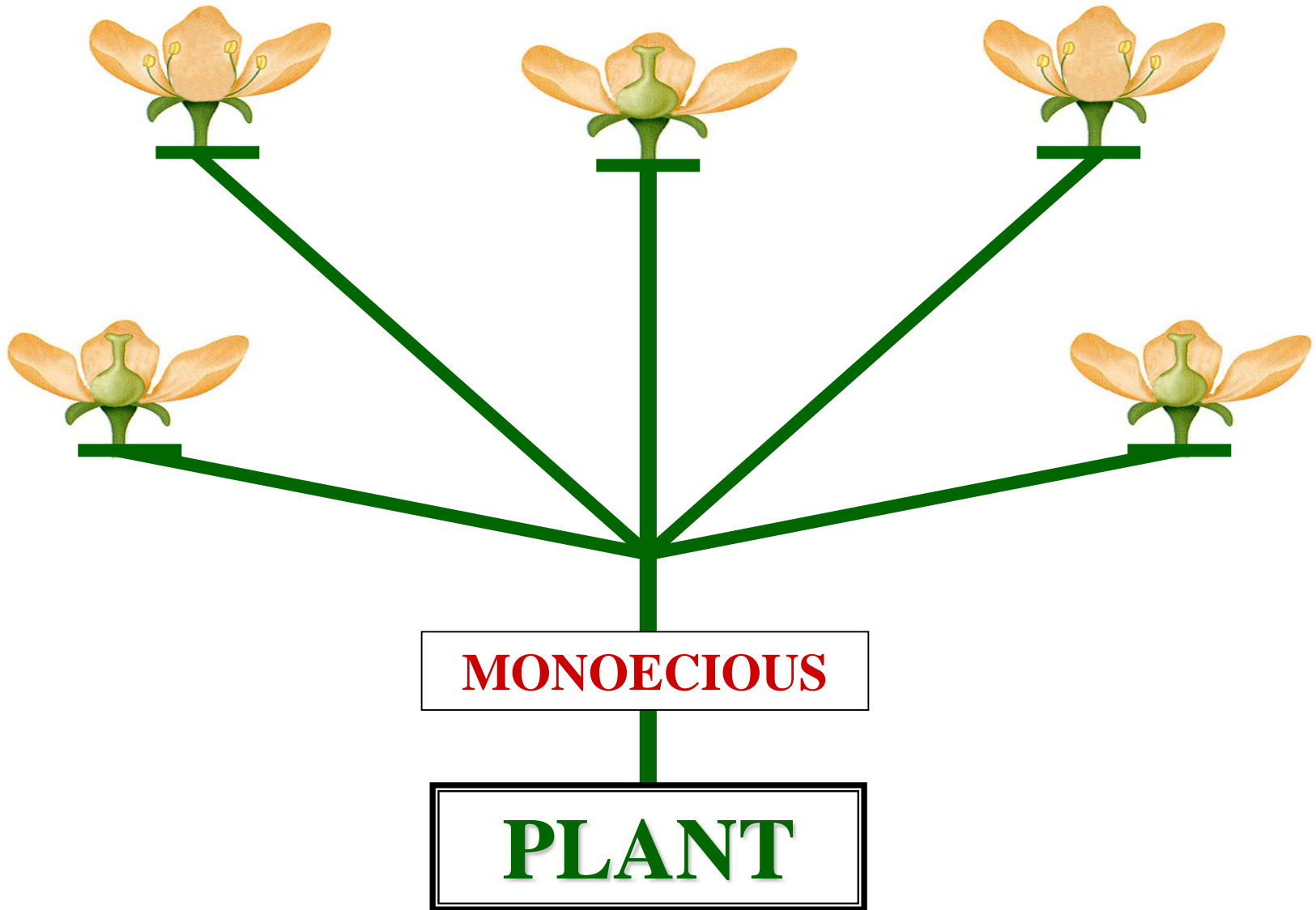
**PISTILATE
FLOWER**



**IMPERFECT
FLOWERS**

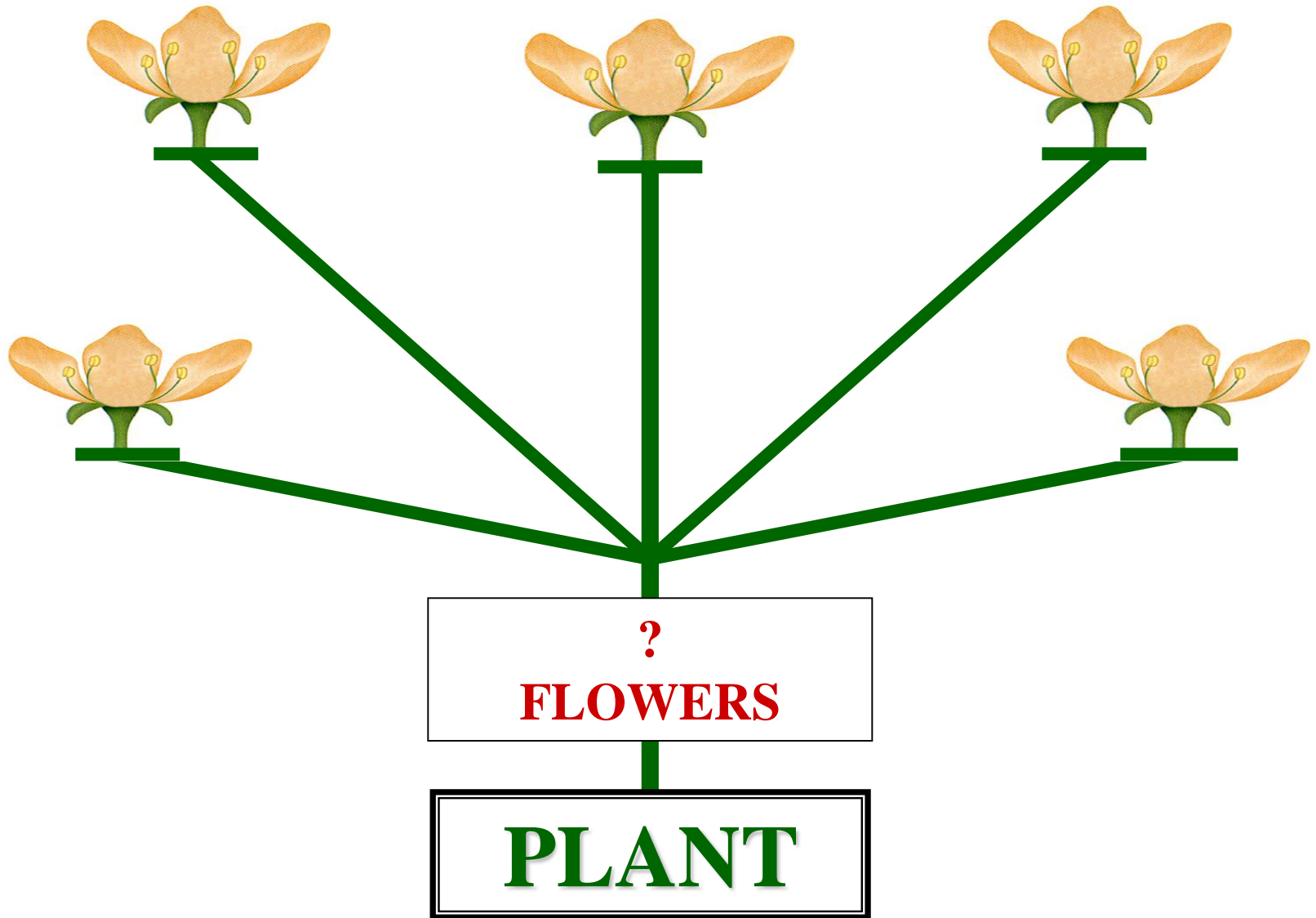
PLANT

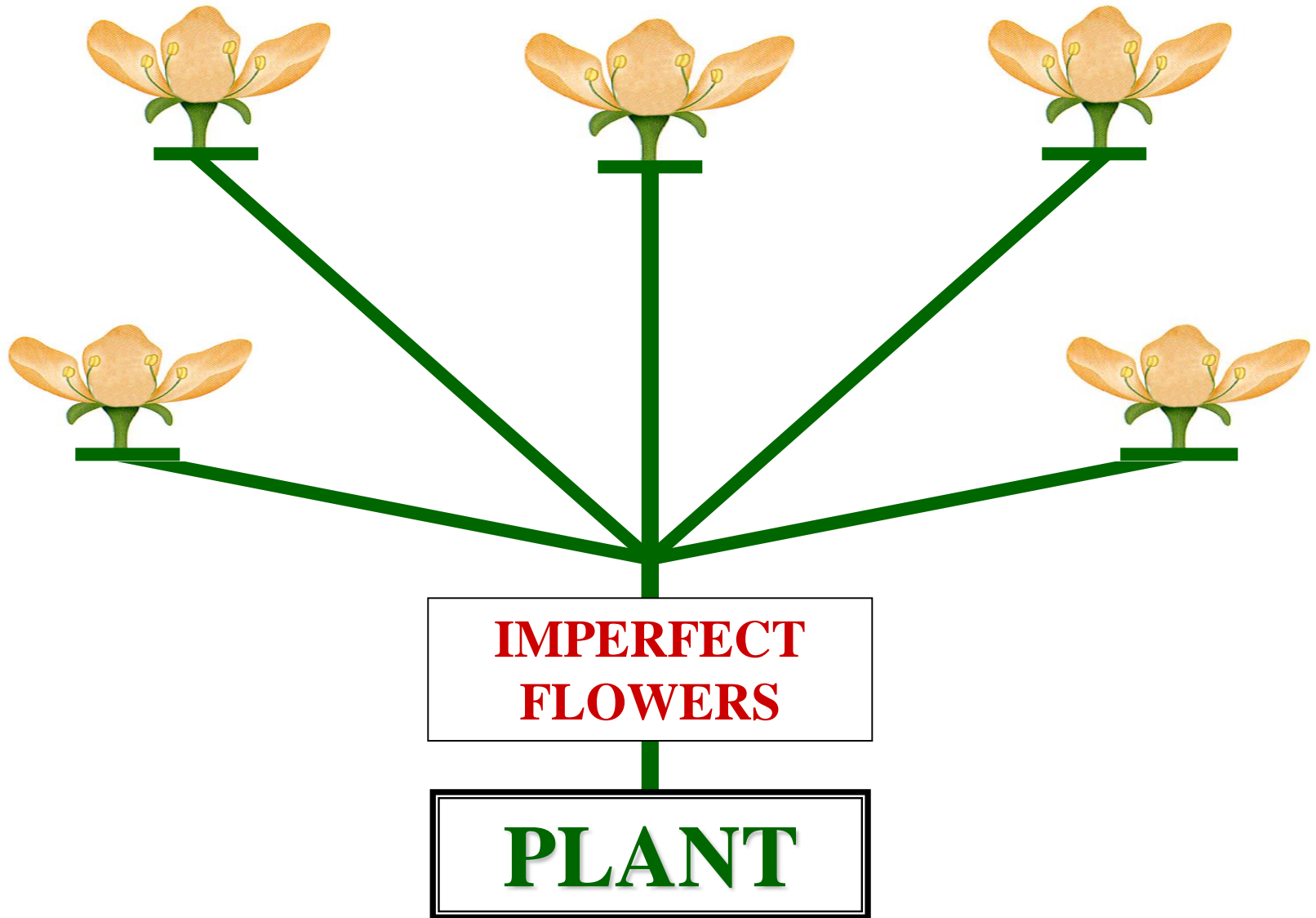




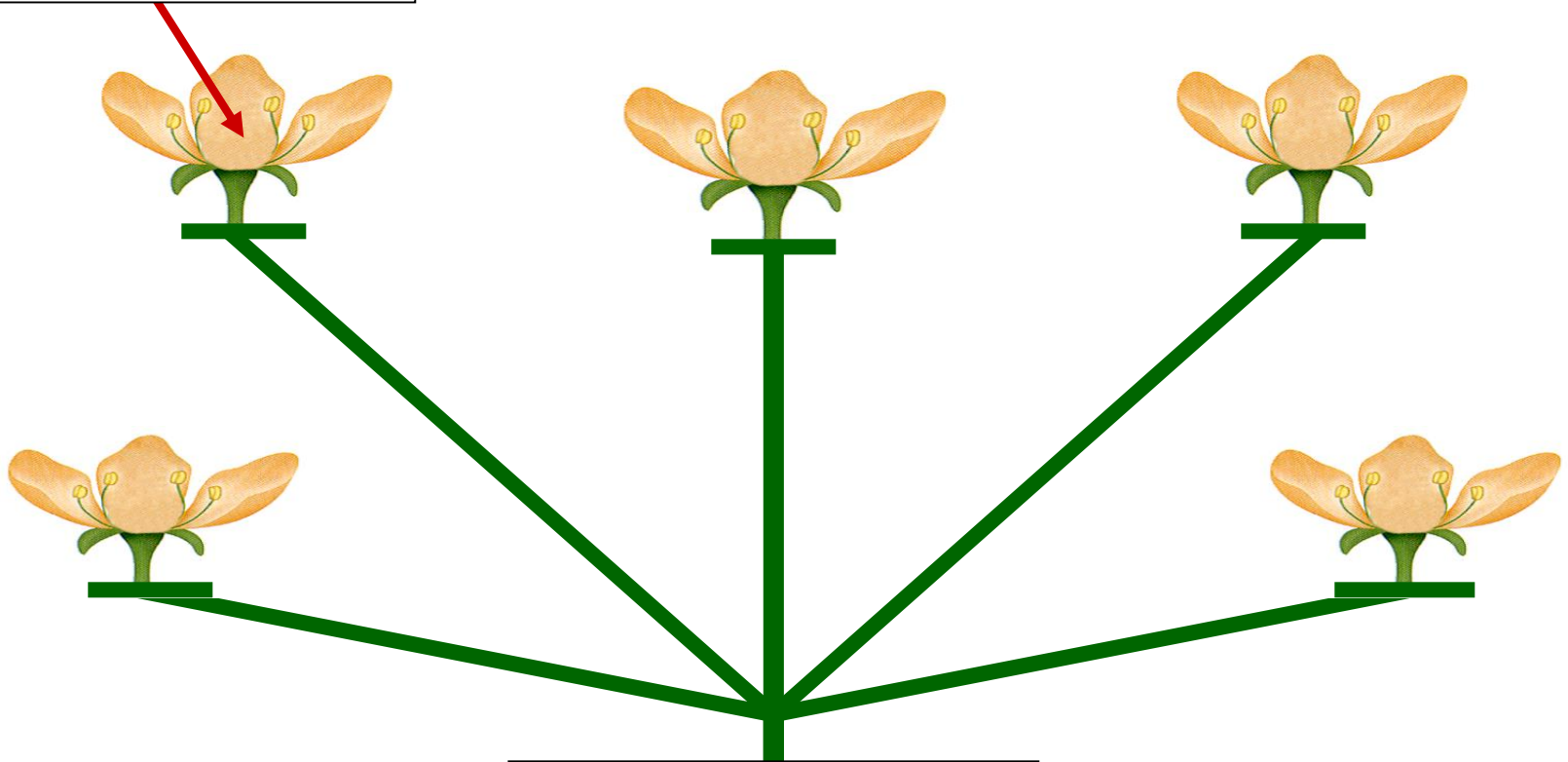


MONOECIOUS
DIOECIOUS
POLYGAMOUS
APPLIED





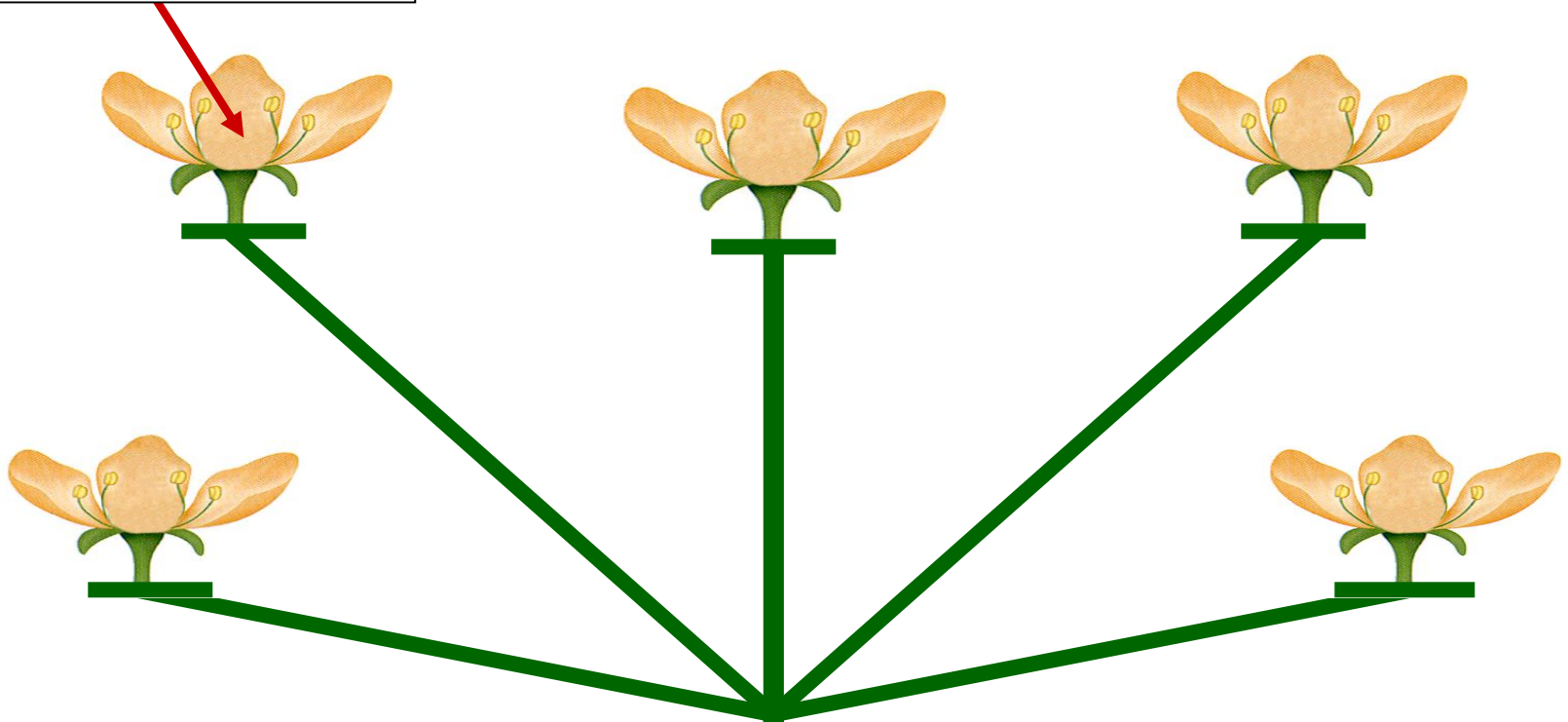
**STAMINATE
FLOWER**



**IMPERFECT
FLOWERS**

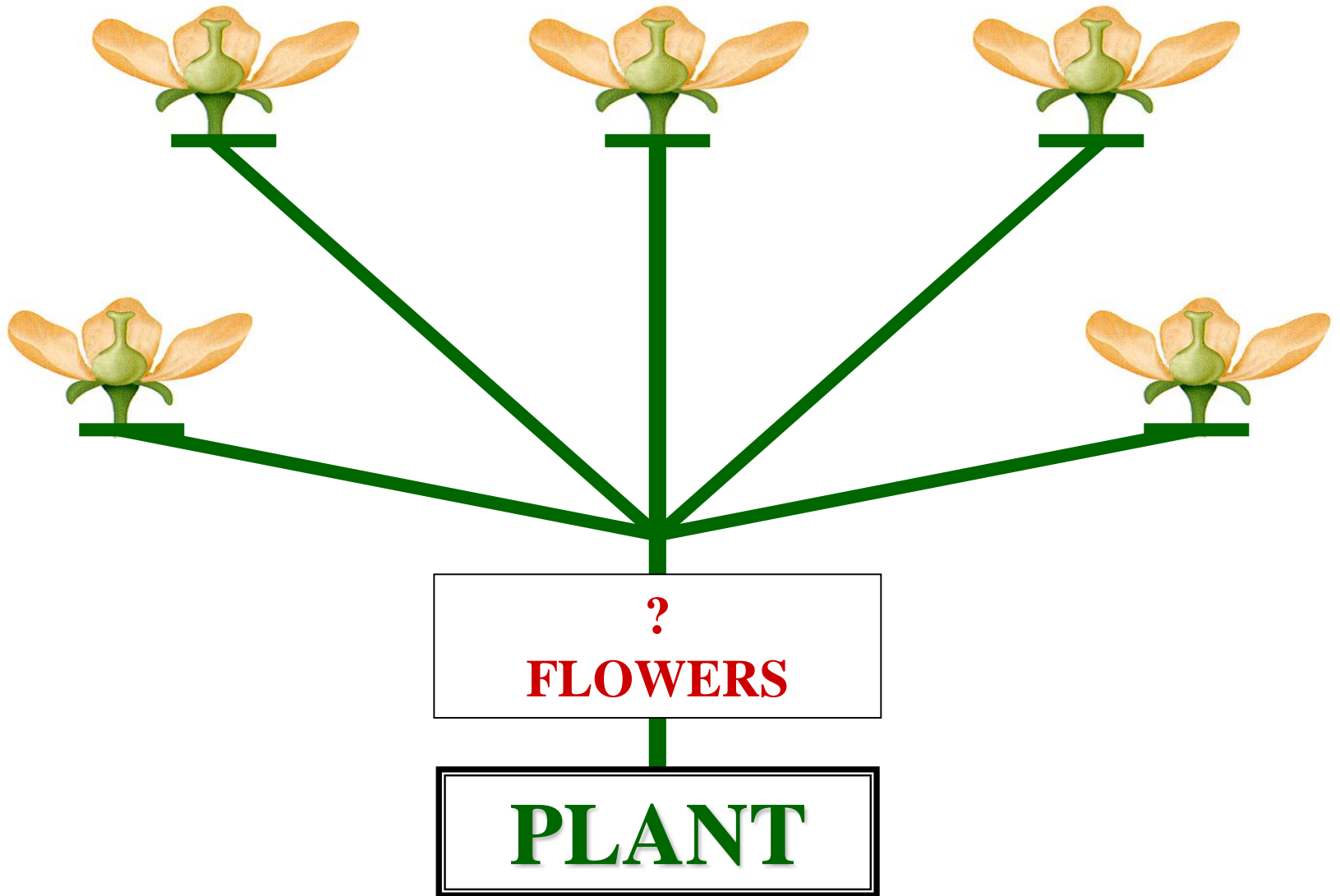
PLANT

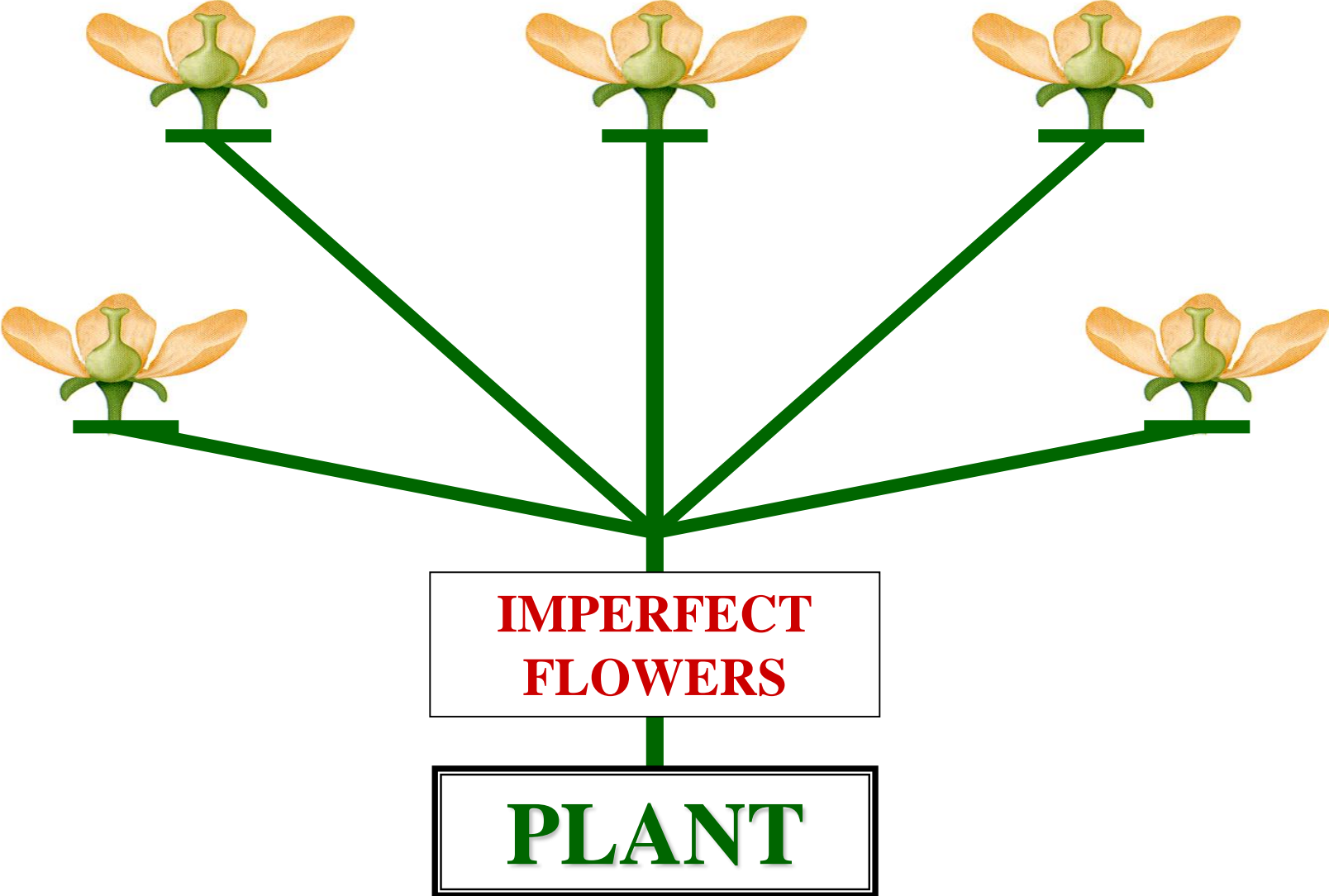
**STAMINATE
FLOWER**



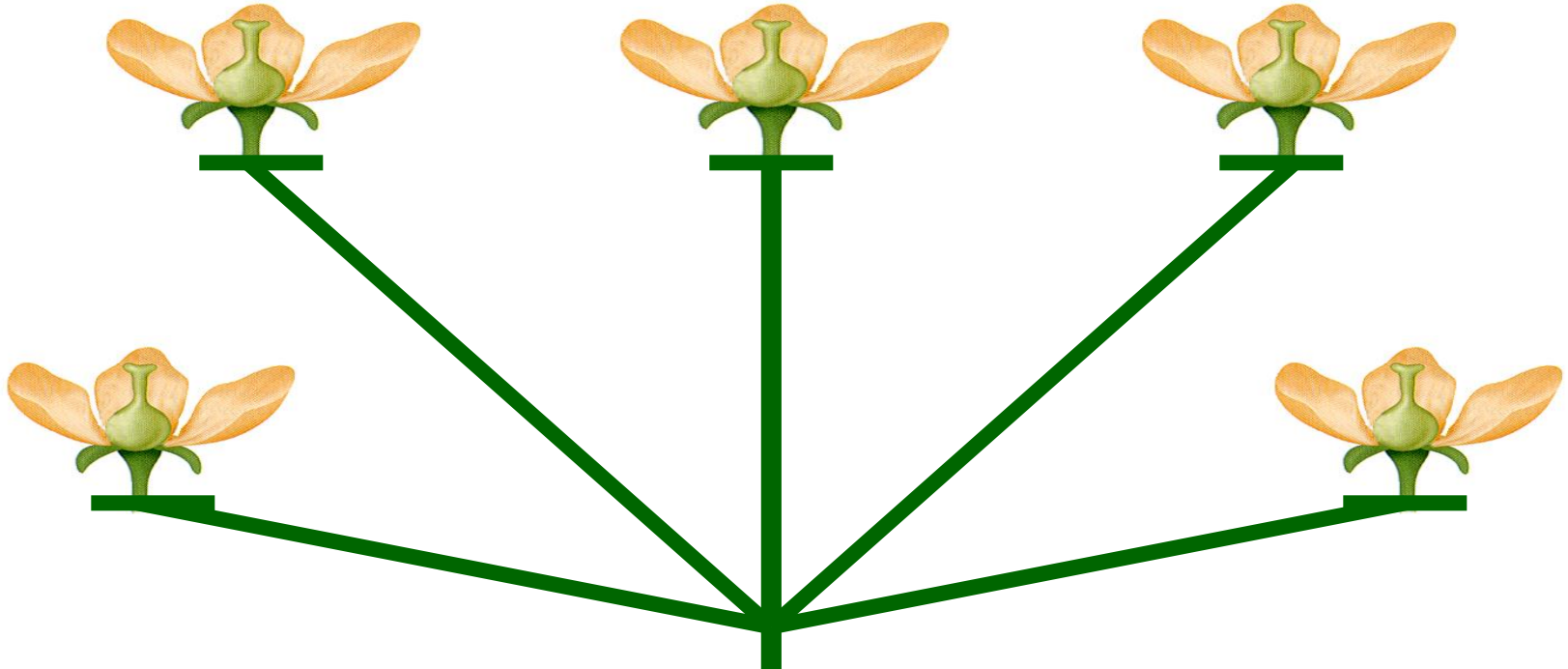
STAMINATE PLANT

PLANT





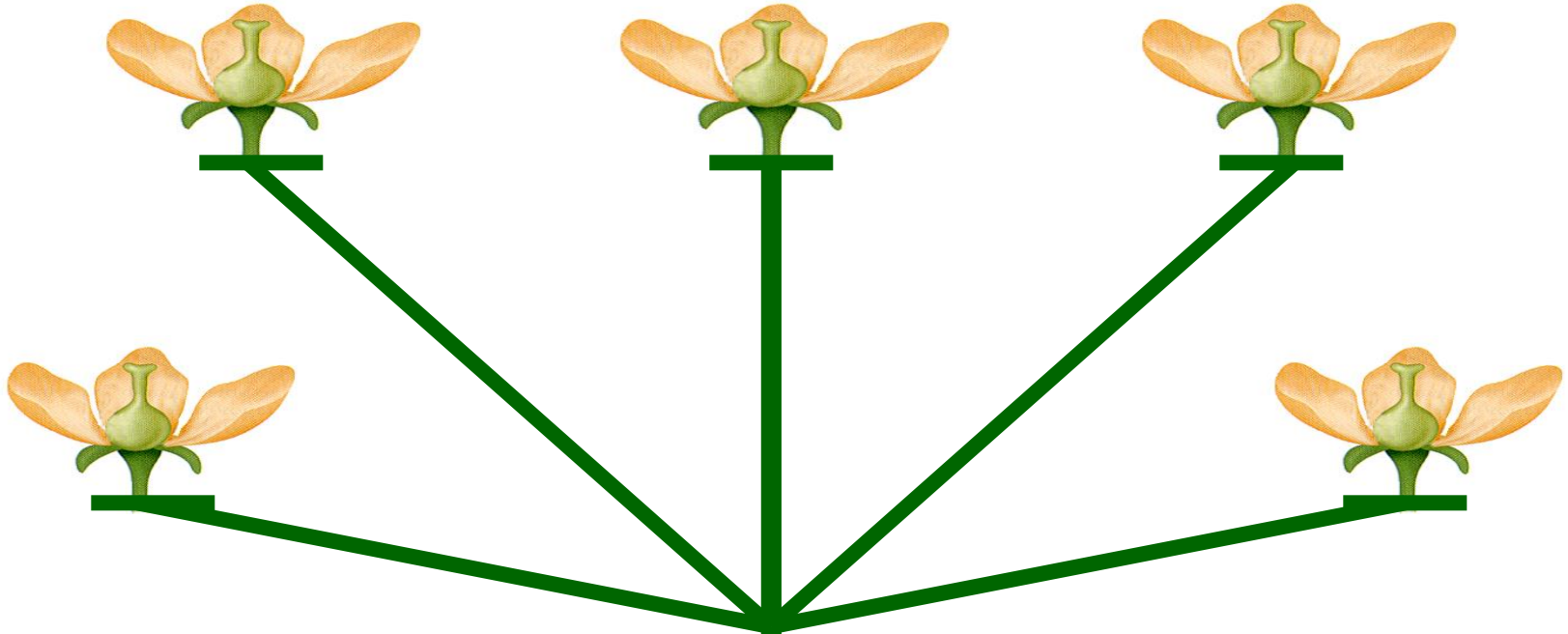
**PISTILATE
FLOWER**



**IMPERFECT
FLOWERS**

PLANT

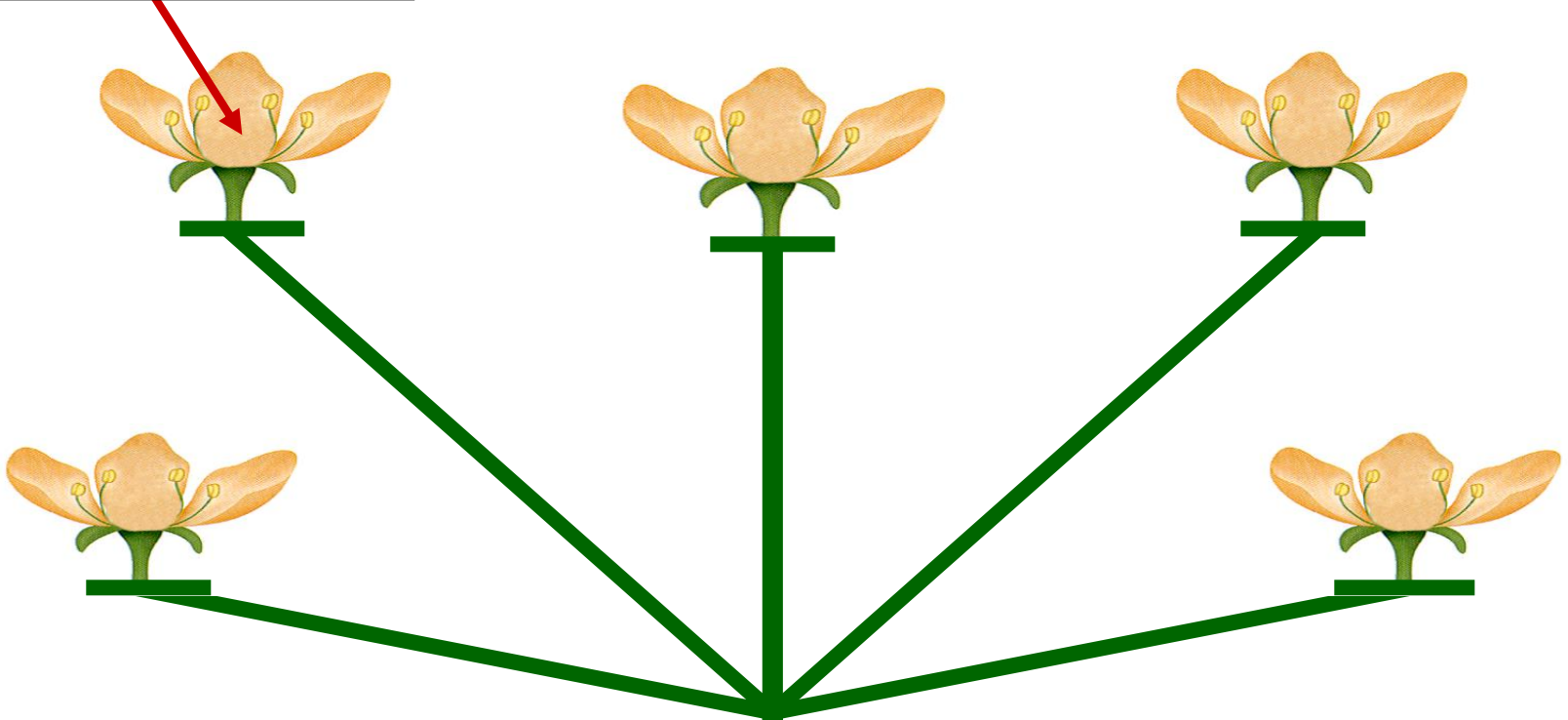
**PISTILATE
FLOWER**



PISTILATE PLANT

PLANT

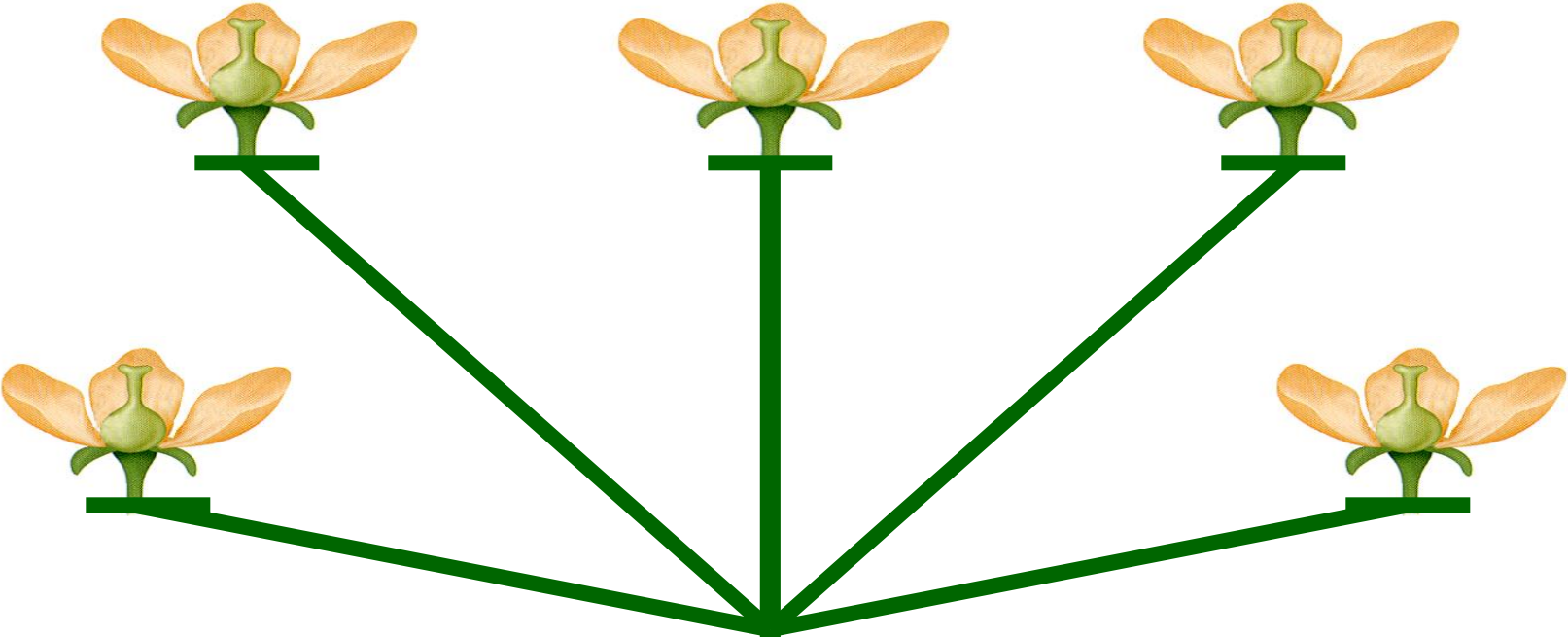
**STAMINATE
FLOWER**



STAMINATE PLANT

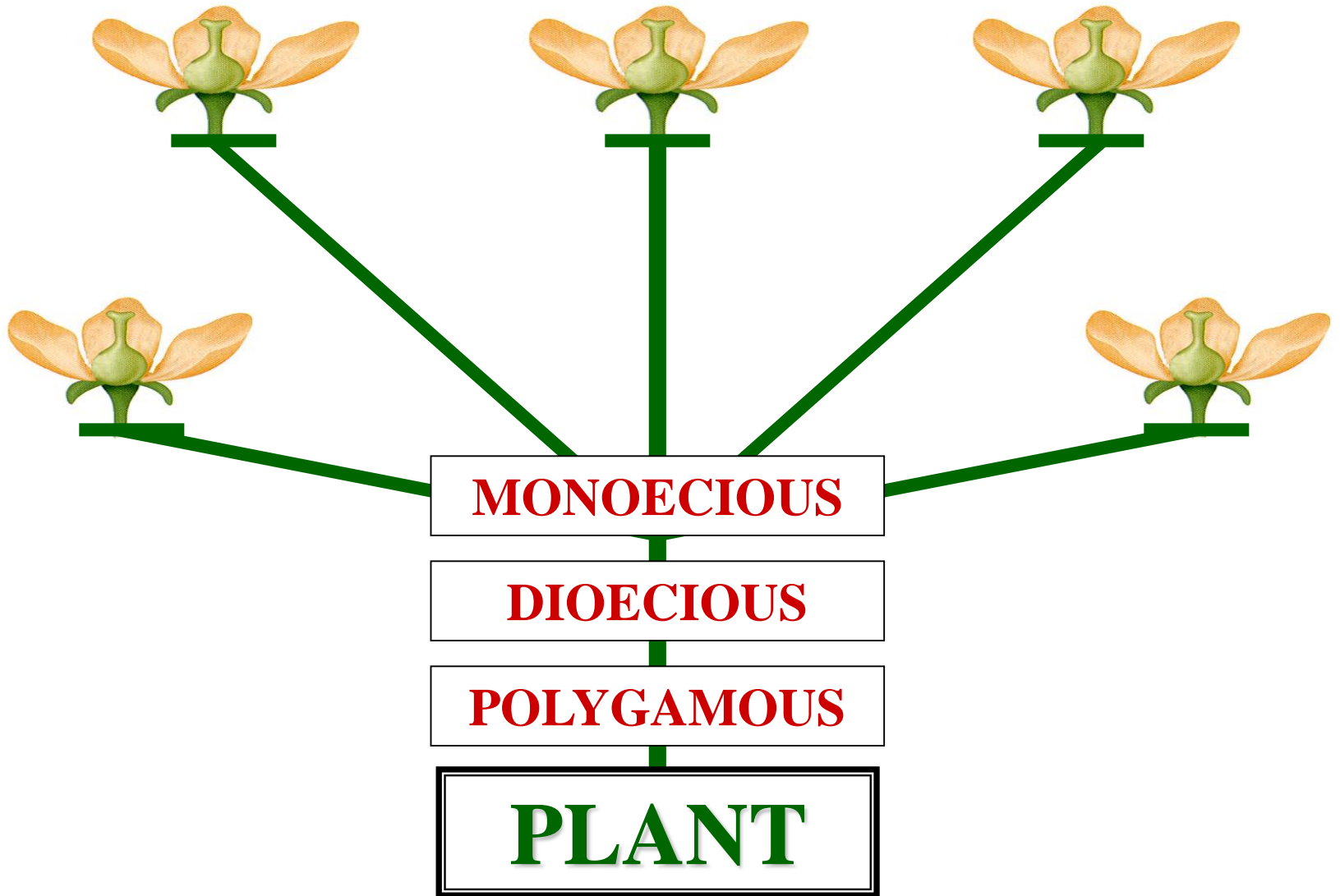
PLANT

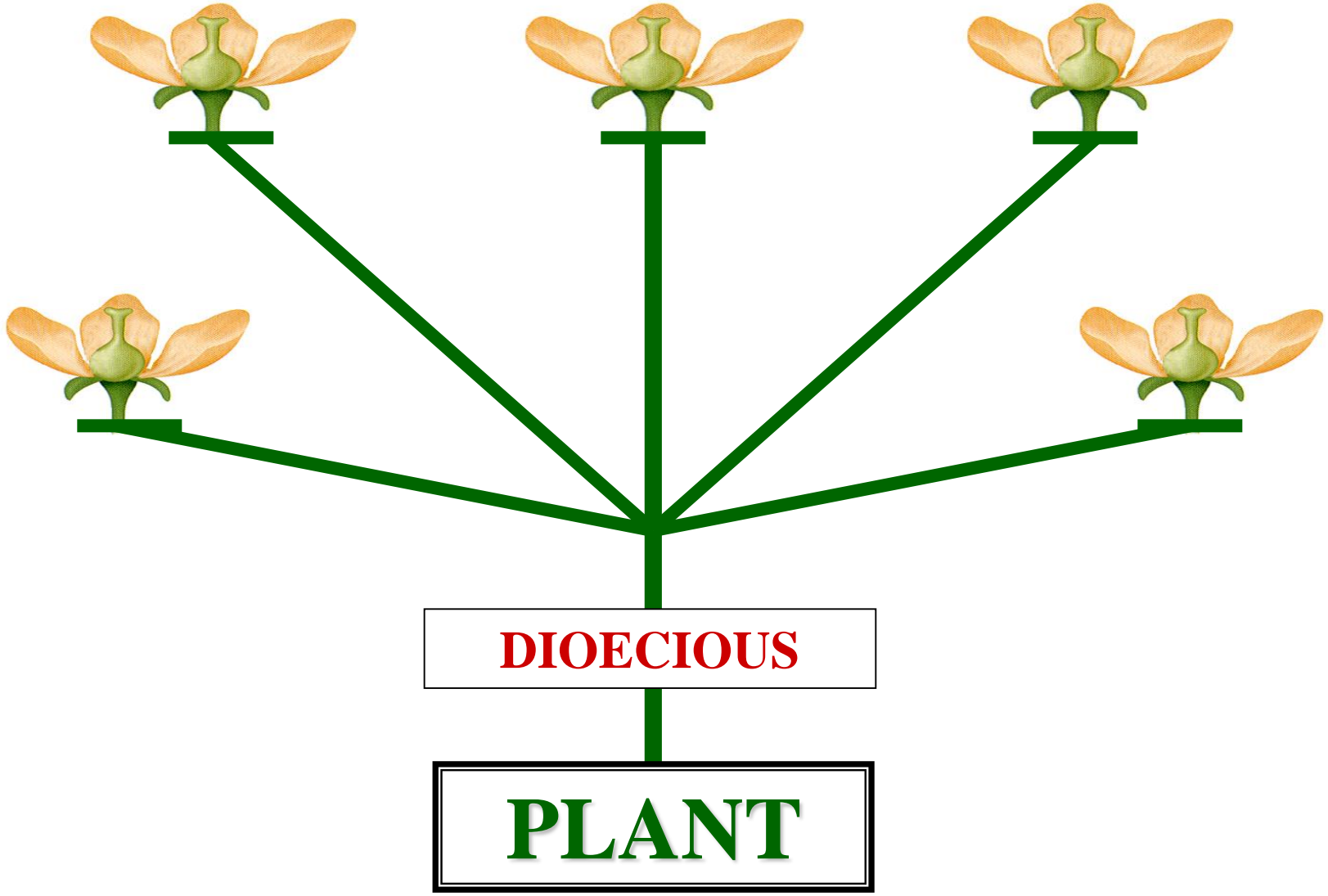
**PISTILATE
FLOWER**



PISTILATE PLANT

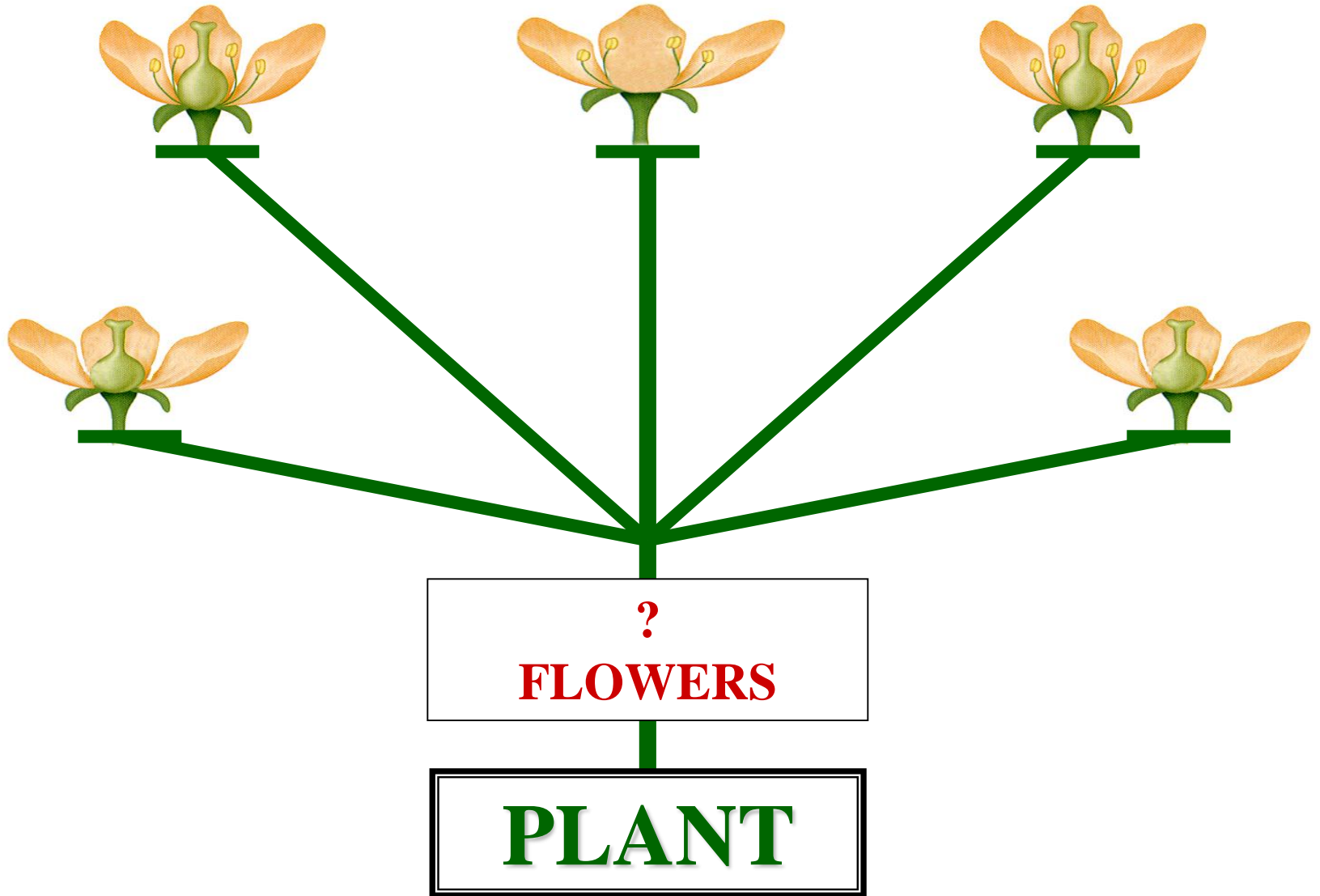
PLANT

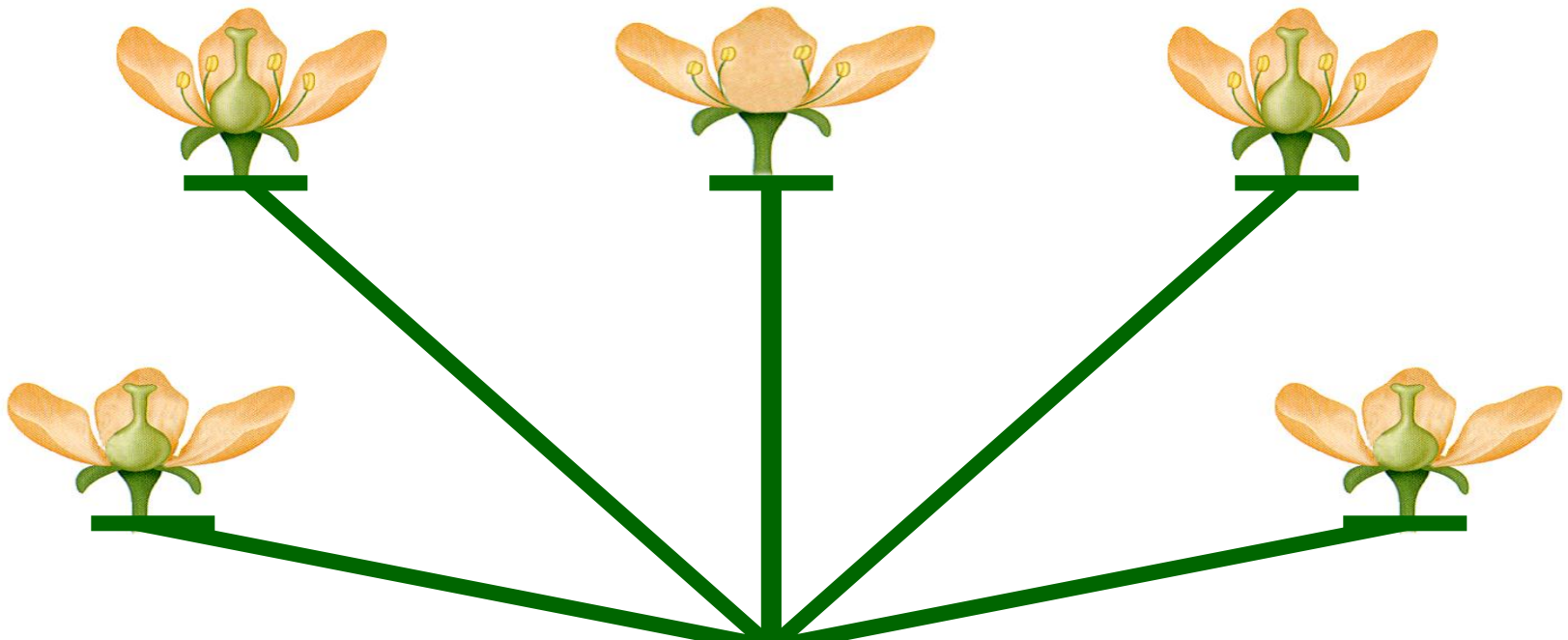






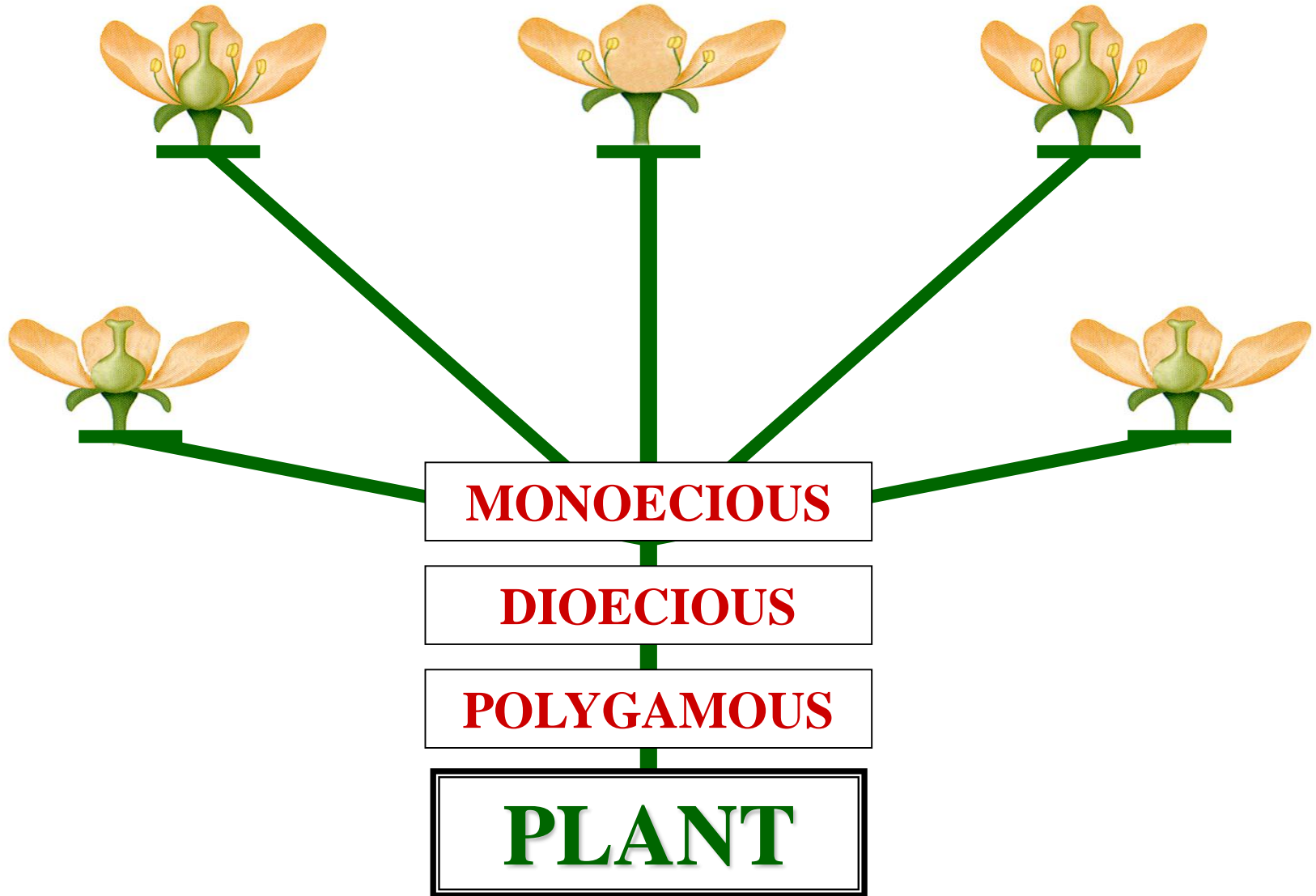
MONOECIOUS
DIOECIOUS
POLYGAMOUS
APPLIED

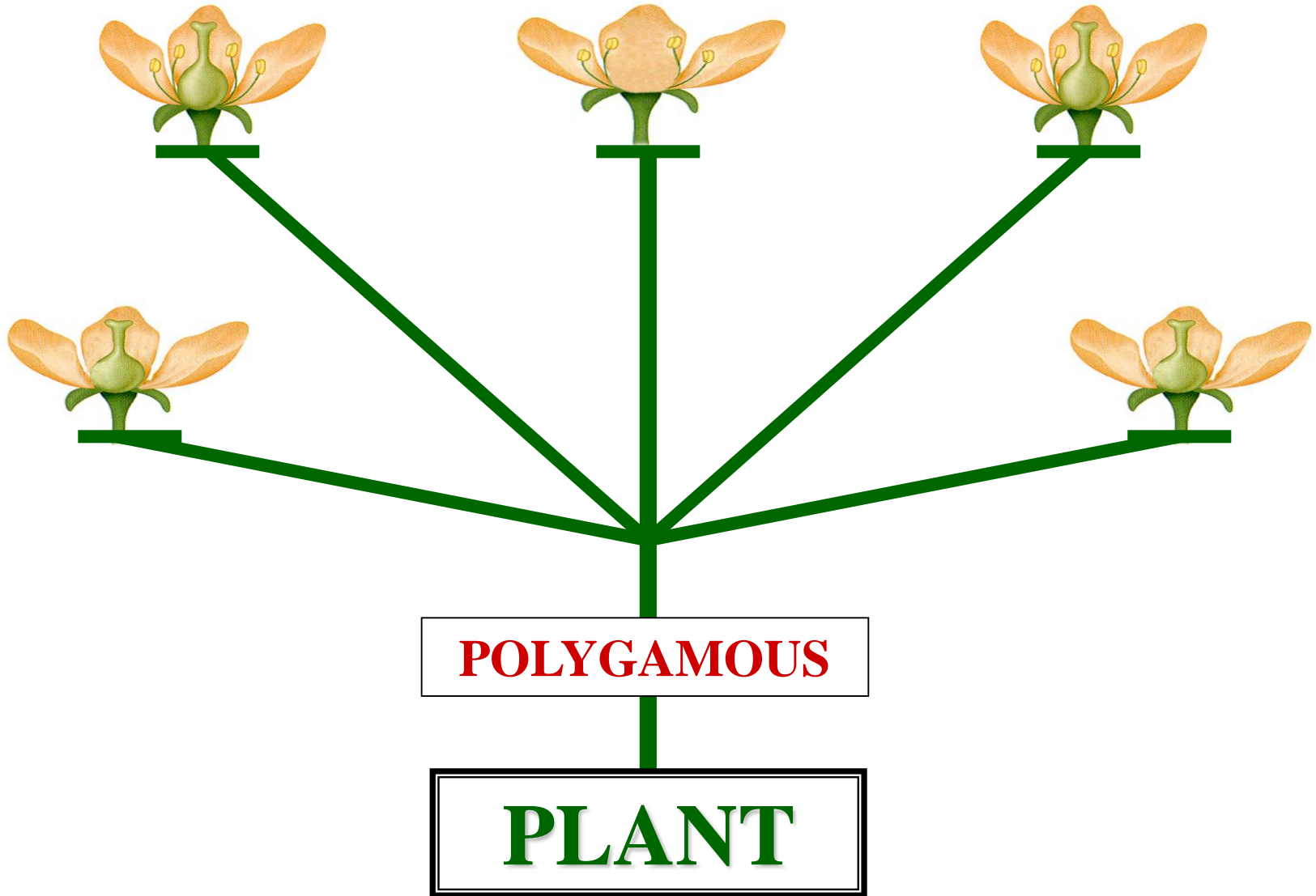




**PERFECT FLOWERS
&
IMPERFECT FLOWERS**

PLANT





ANGIOSPERMS

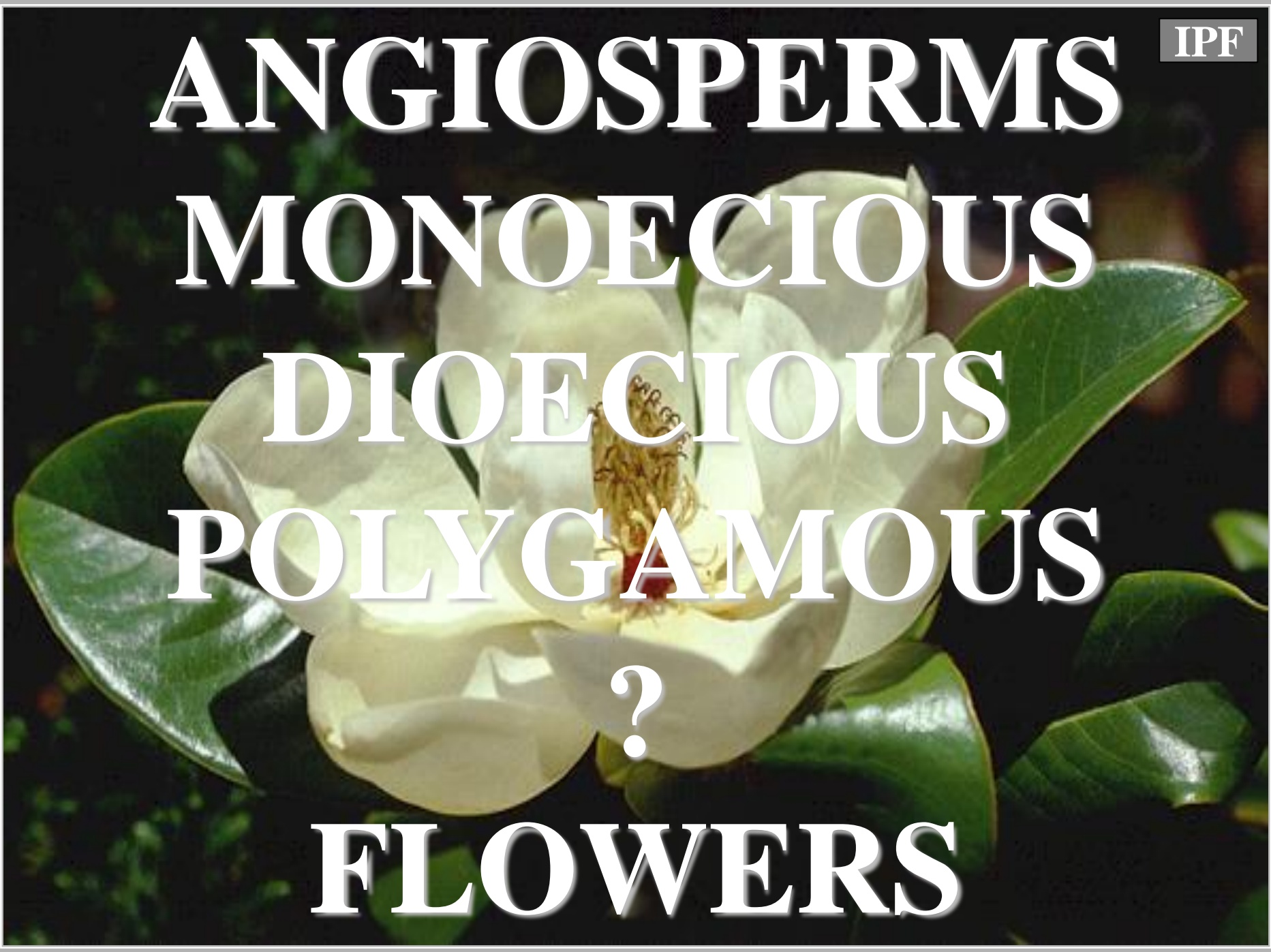
MONOECEIOUS

DIOECEIOUS

POLYGAMOUS

?

FLOWERS





ANGIOSPERMS

MONOECIOUS

DIOECIOUS

POLYGAMOUS

IMPERFECT

FLOWERS



POLLINATION

POLLINATION

ANGIOSPERM POLLINATION



POLLEN GRAIN
DISSEMINATION
TO STIGMA

ANGIOSPERM
POLLINATION



ANGIOSPERM POLLINATION





FLOWER 1

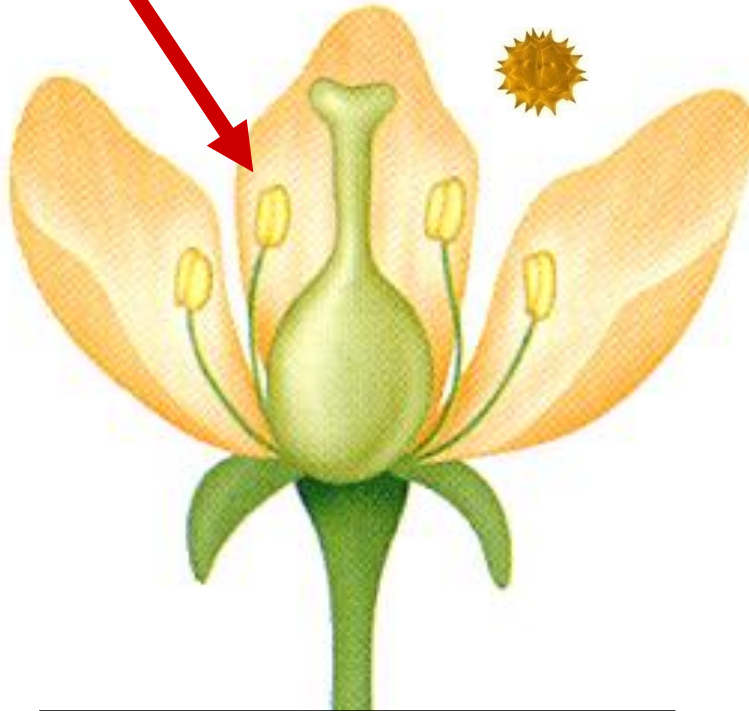


FLOWER 2

 = **POLLEN GRAIN**



ANTHER



FLOWER 1

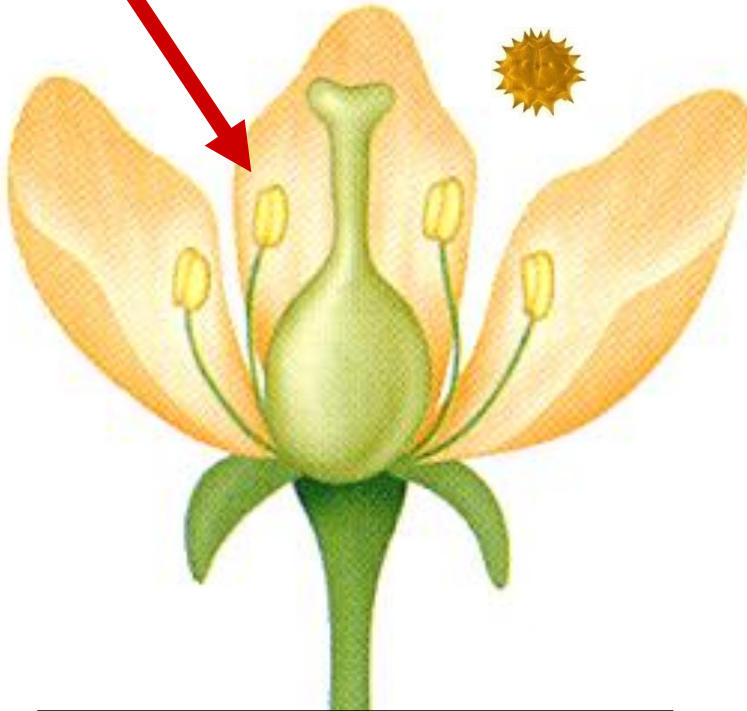


FLOWER 2

 = **POLLEN GRAIN**



ANTHER



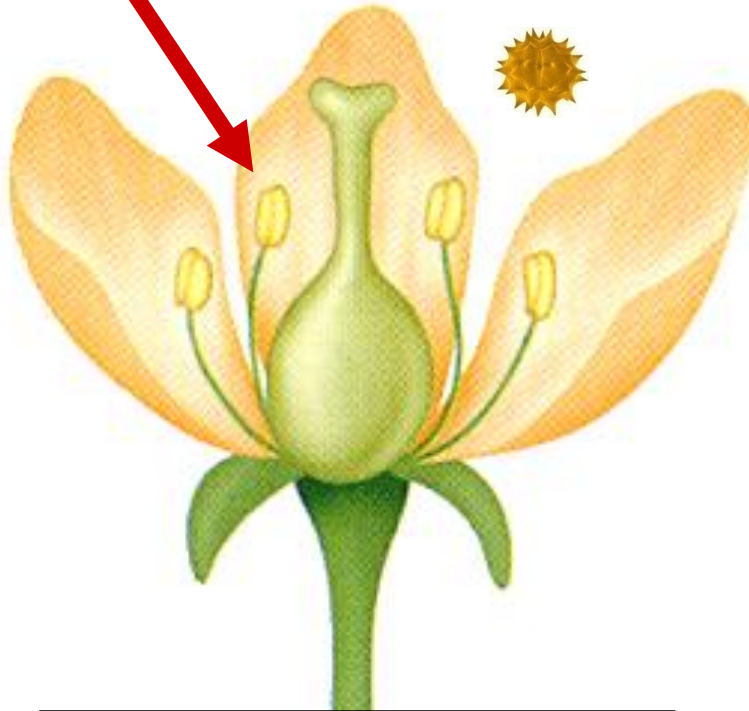
FLOWER 1



FLOWER 2

 = **POLLEN GRAIN**

ANTHER



FLOWER 1

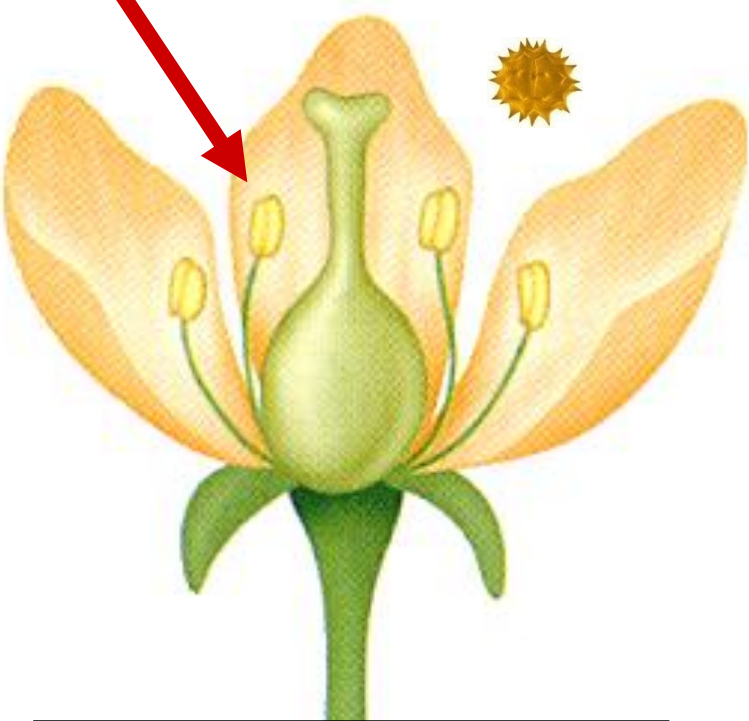


FLOWER 2

 = **POLLEN GRAIN**

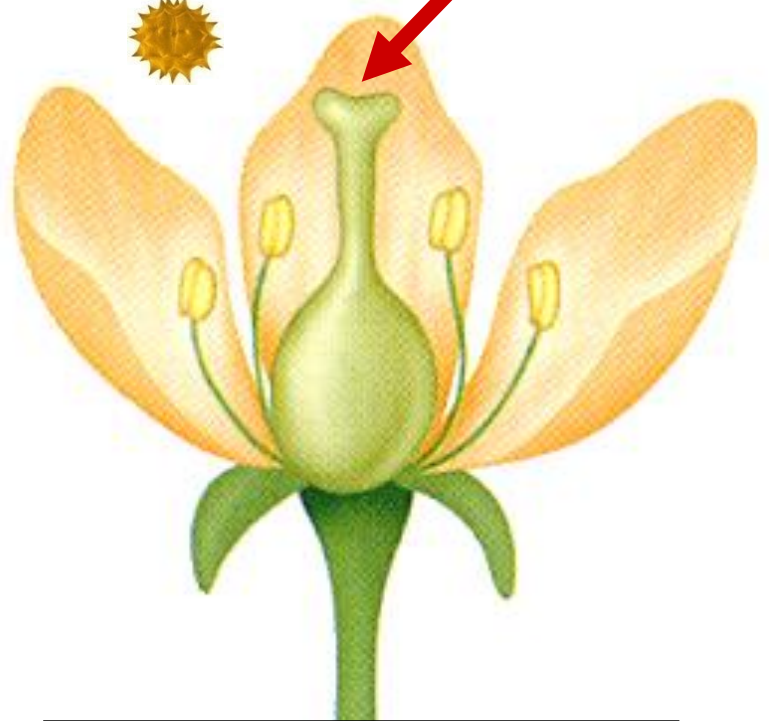


ANTHER



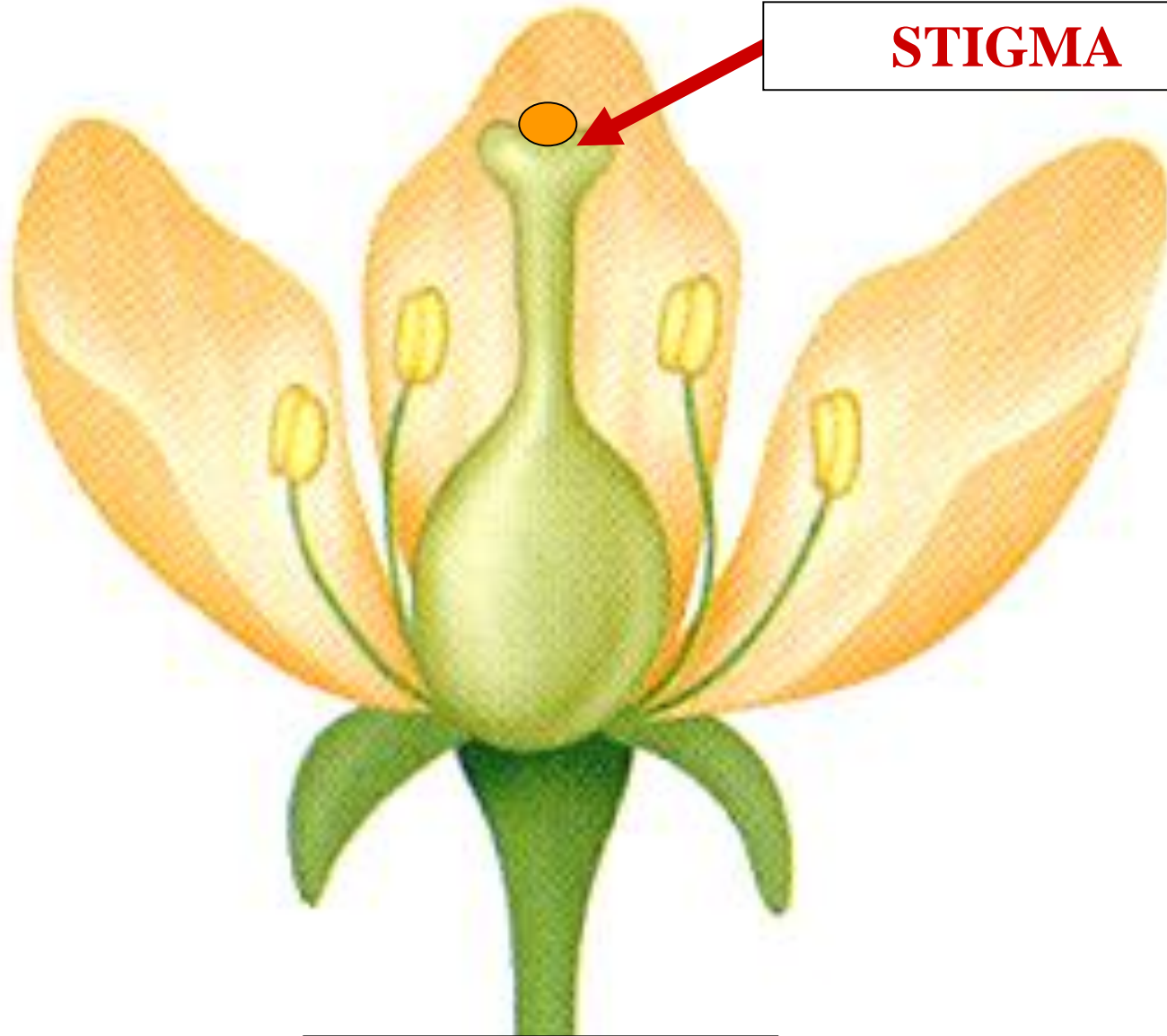
FLOWER 1

STIGMA



FLOWER 2

 = **POLLEN GRAIN**



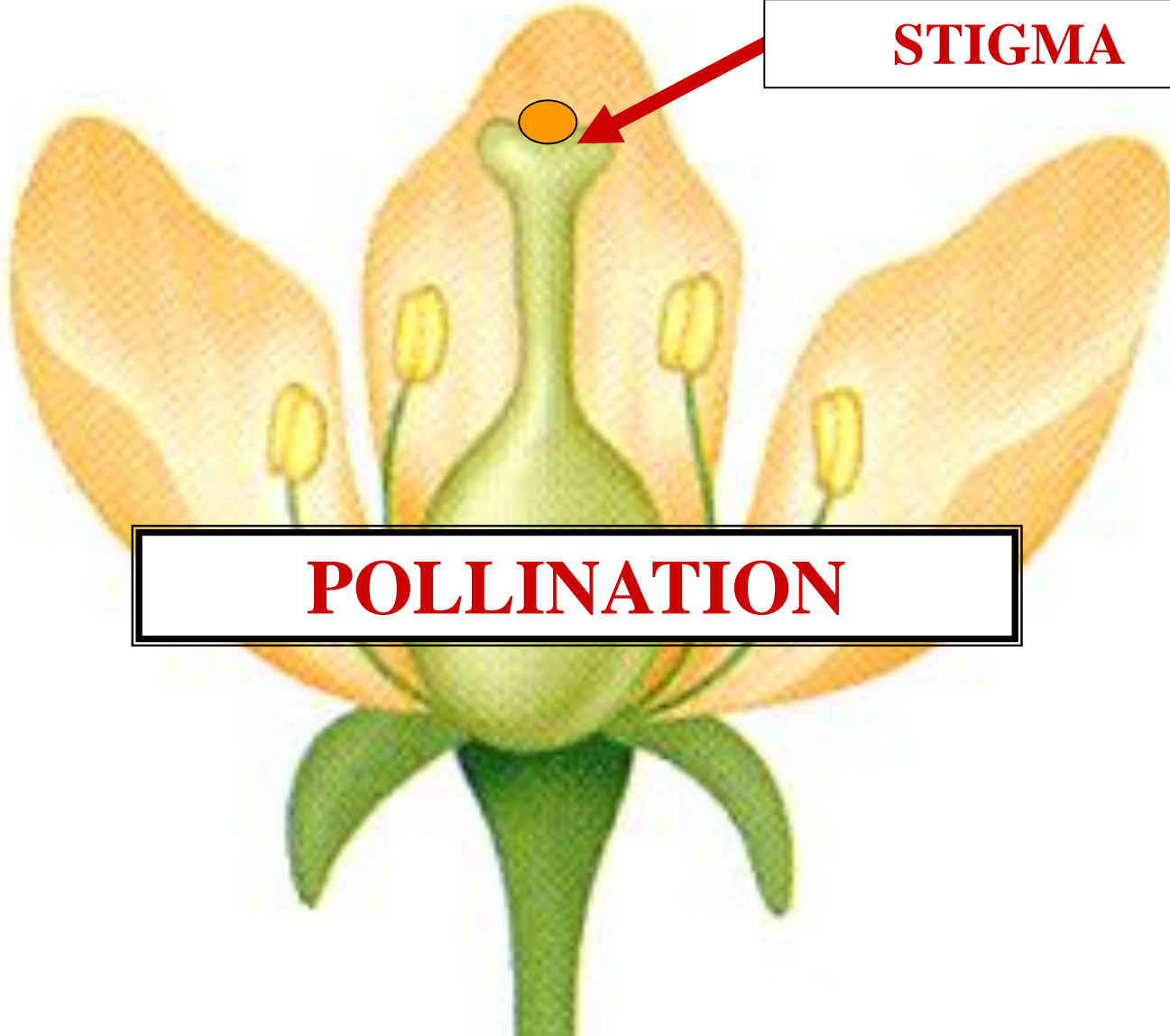
STIGMA

FLOWER

● = POLLEN GRAIN



STIGMA



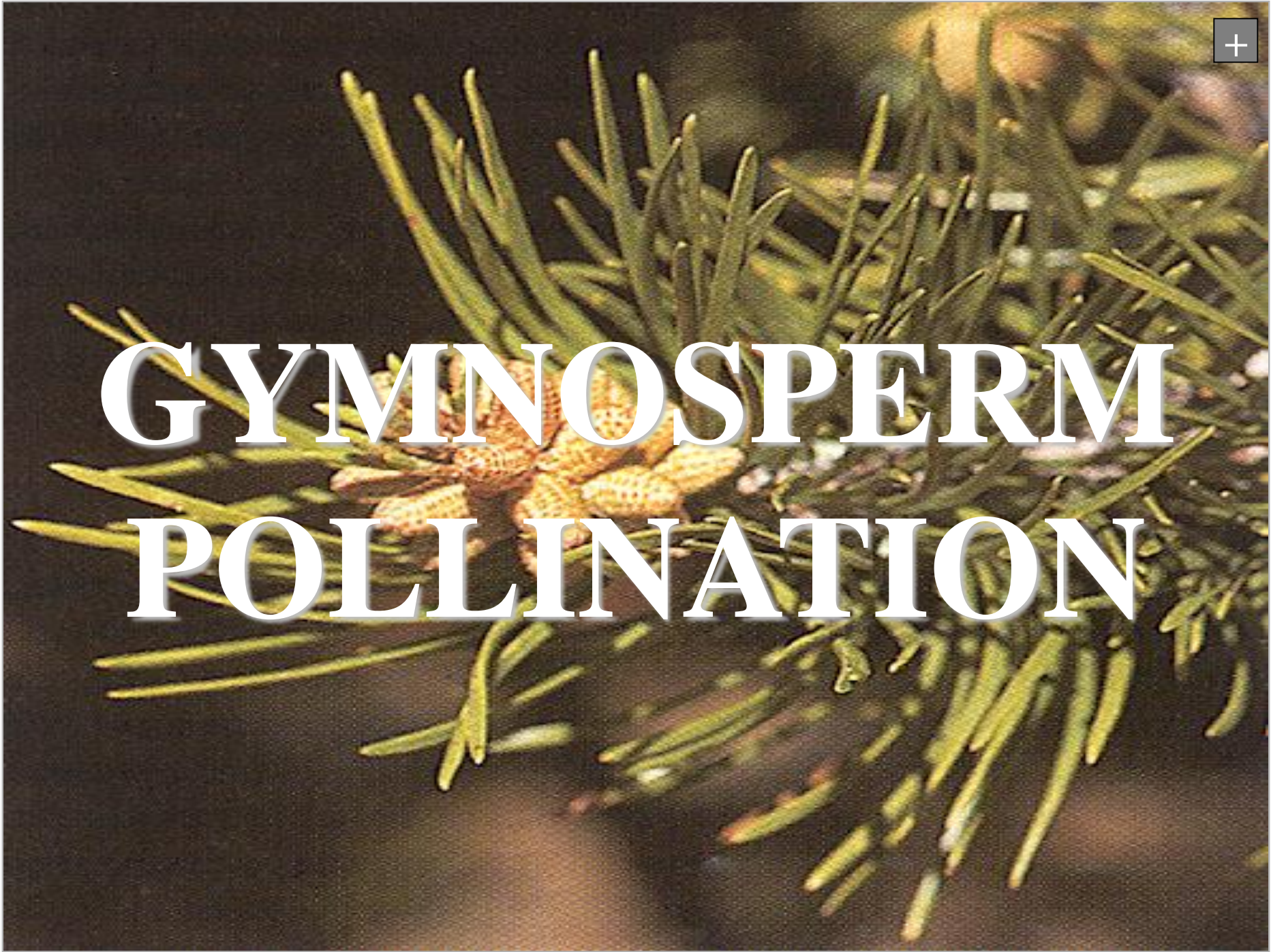
POLLINATION

 = **POLLEN GRAIN**

FLOWER



GYMNOSPERM POLLINATION



MICROSTROBILI

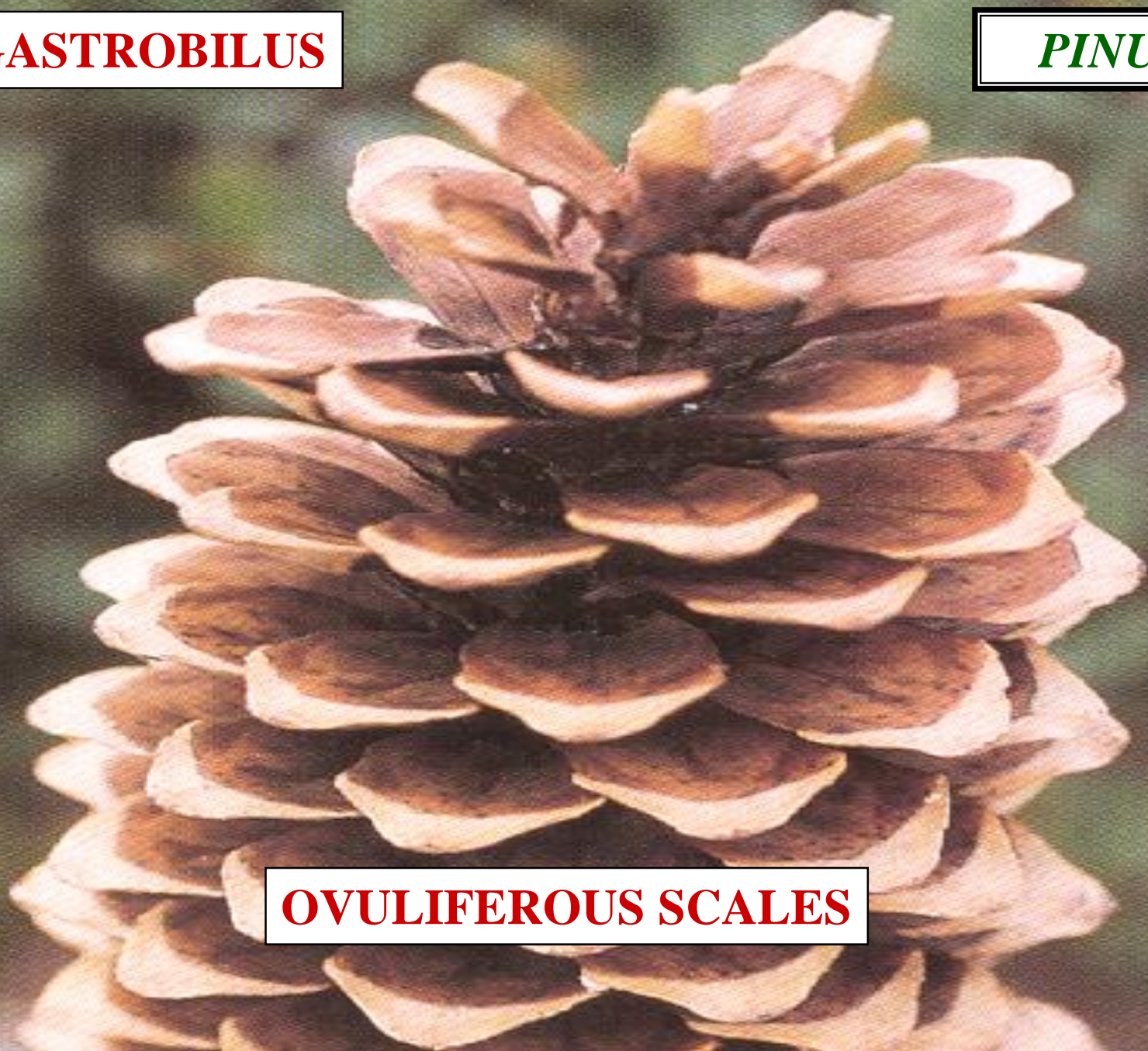
PINUS



**POLLEN GRAINS
WIND DISSEMINATION**

MEGASTROBILUS

PINUS



OVULIFEROUS SCALES

MEGASTROBILUS



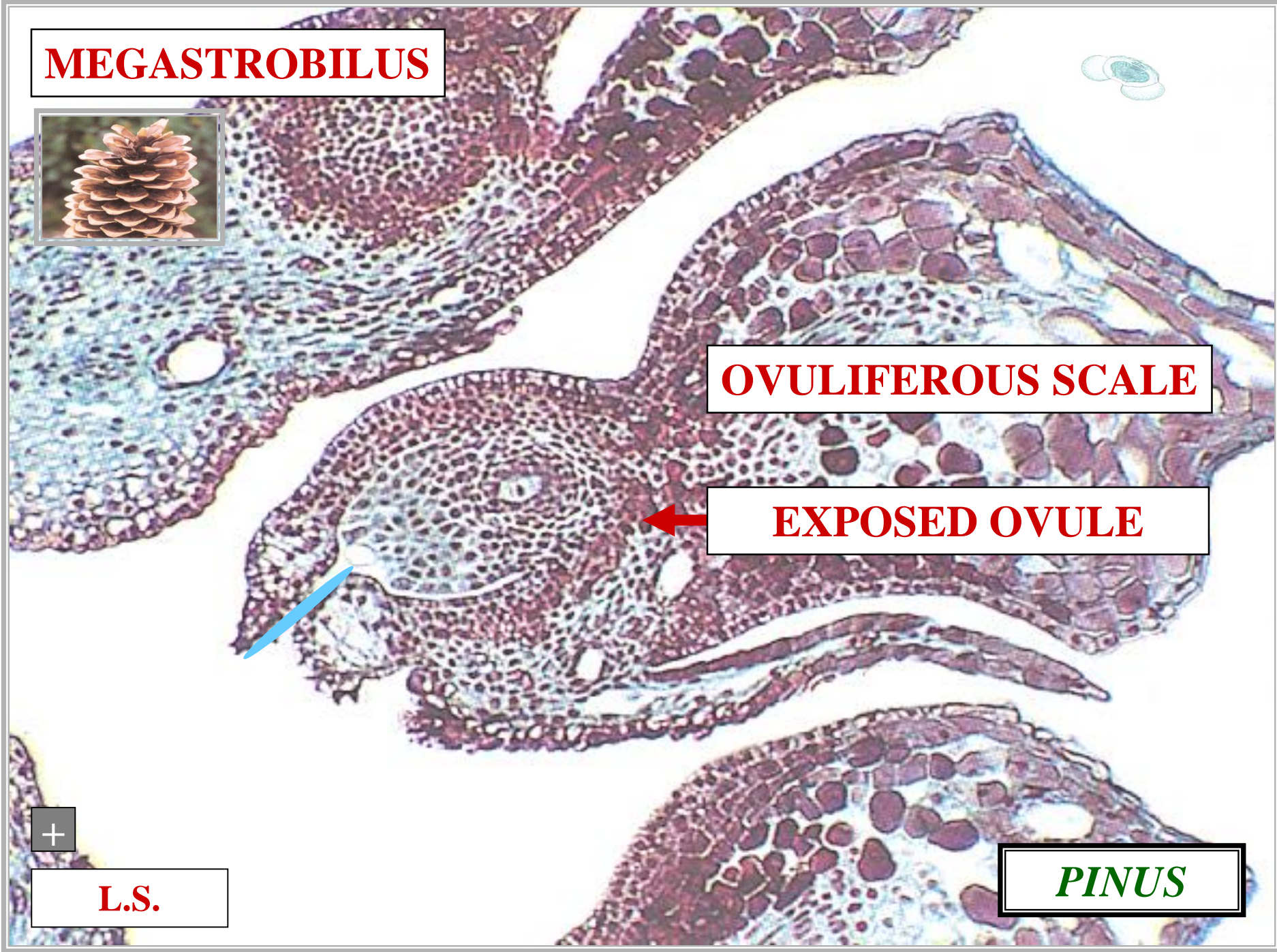
OVULIFEROUS SCALE

EXPOSED OVULE

+

L.S.

PINUS



MEGASTROBILUS



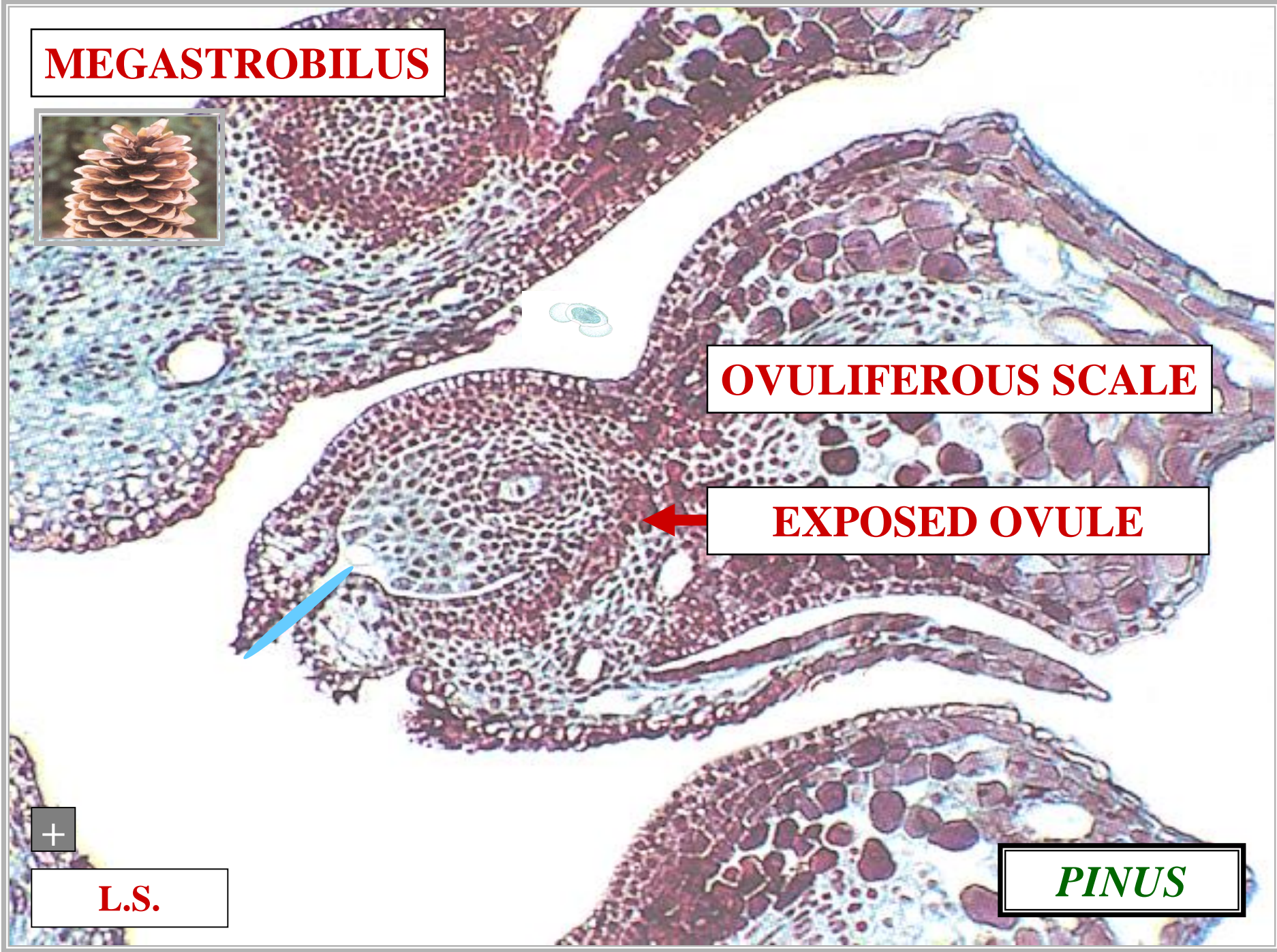
OVULIFEROUS SCALE

EXPOSED OVULE

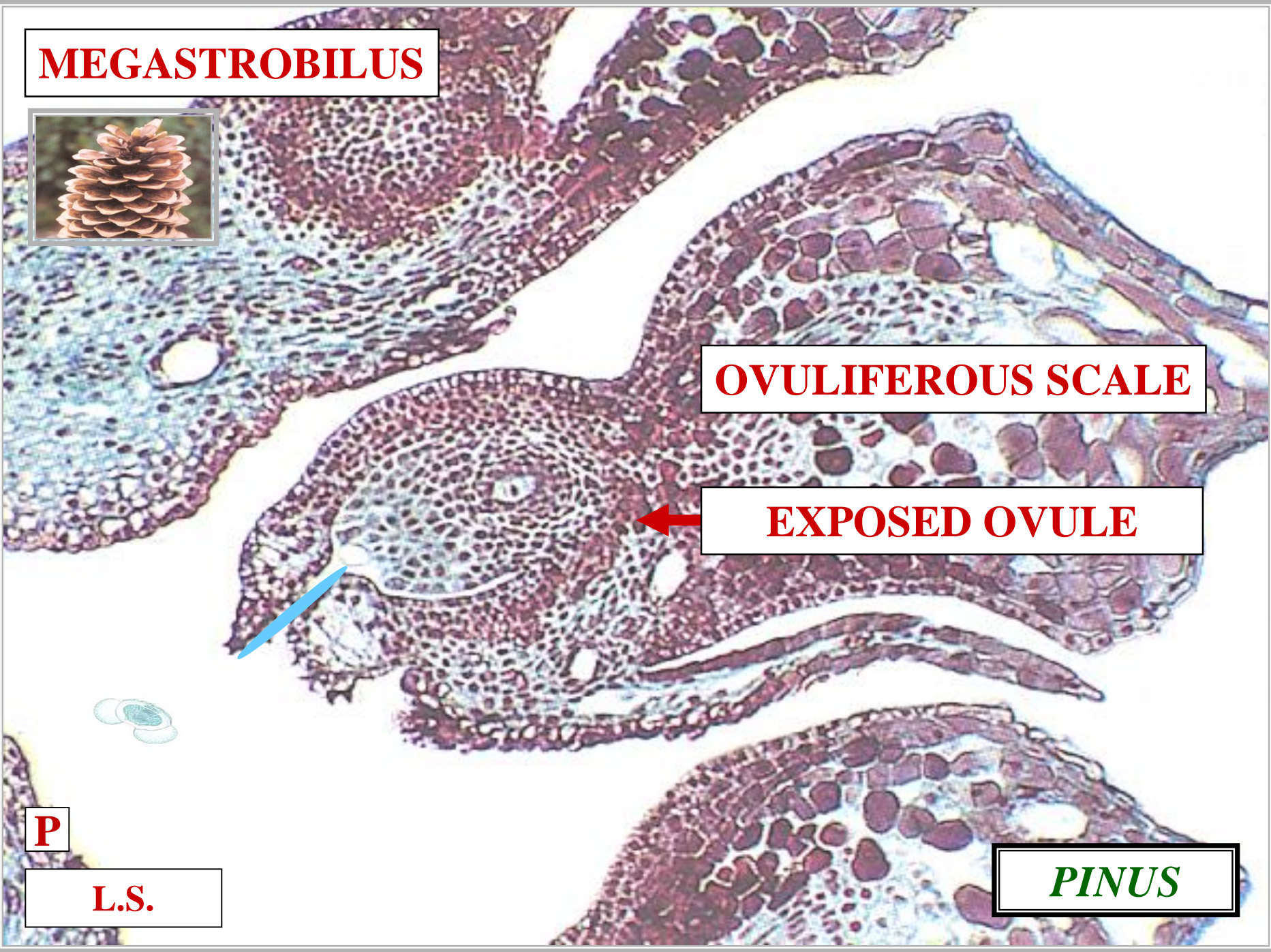
+

L.S.

PINUS



MEGASTROBILUS



OVULIFEROUS SCALE

EXPOSED OVULE

P

L.S.

PINUS

MEGASTROBILUS



OVULIFEROUS SCALE

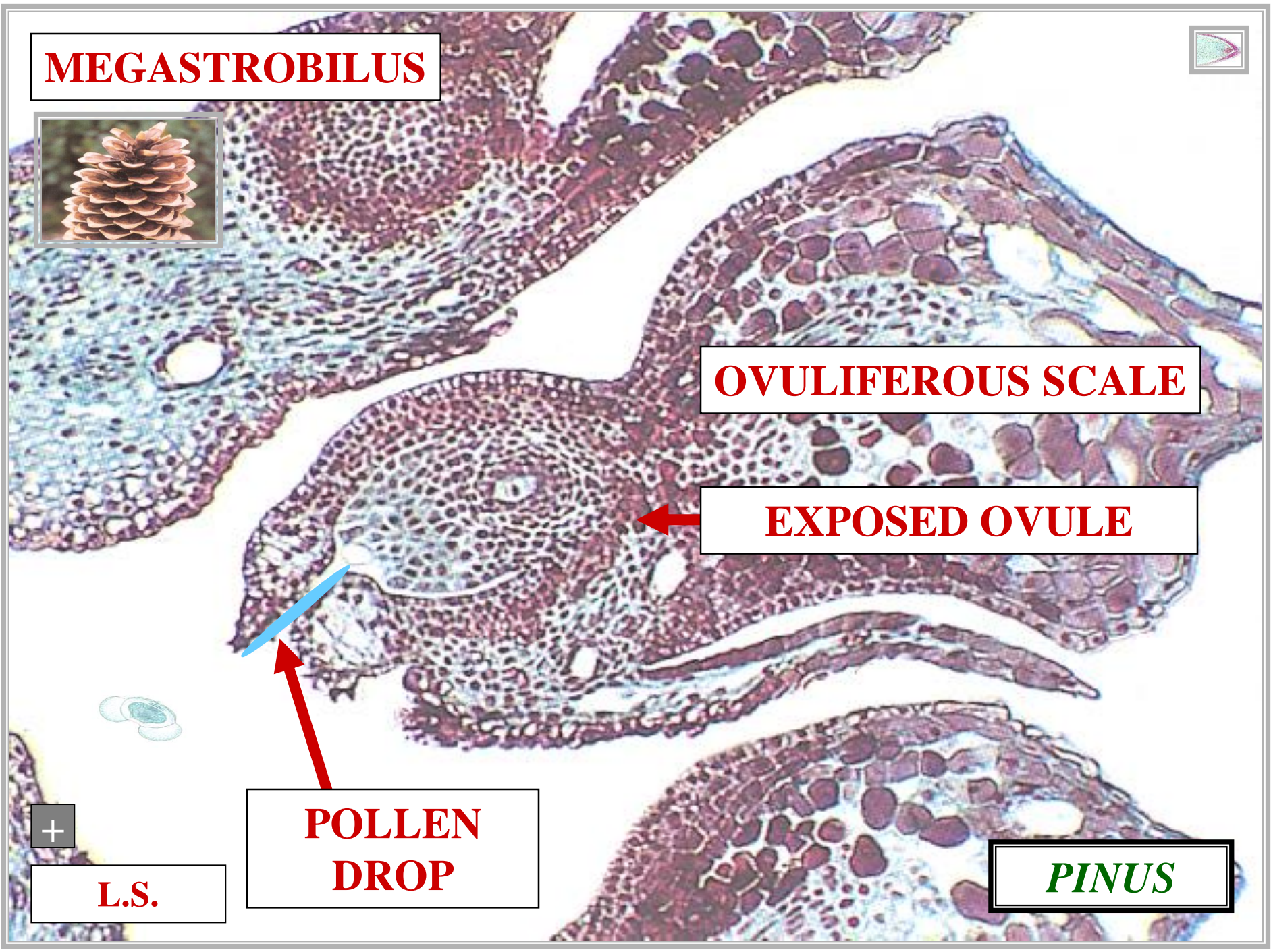
EXPOSED OVULE

**POLLEN
DROP**

PINUS

L.S.

+



OVULE

INTEGUMENT

?

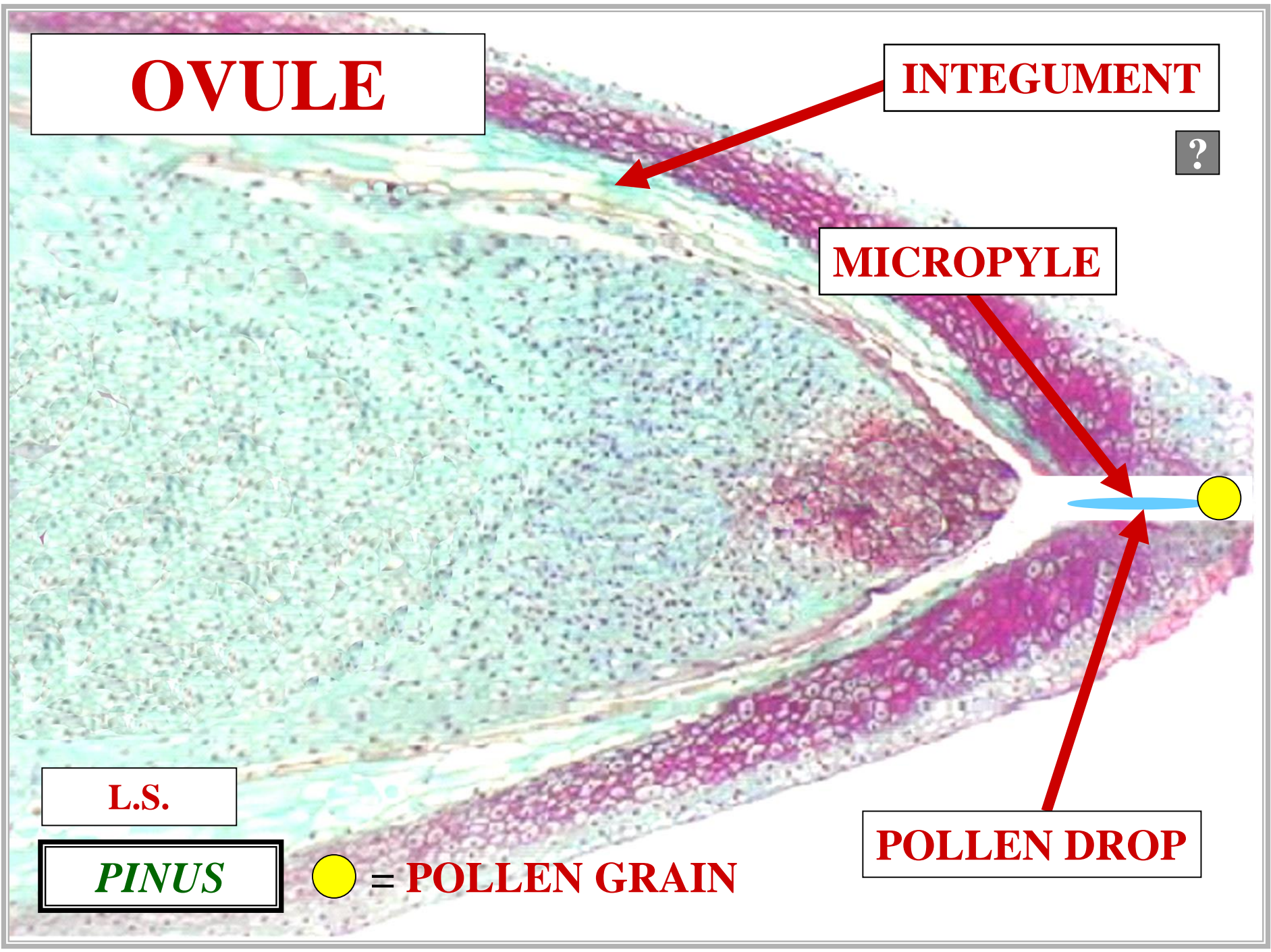
MICROPYLE

L.S.

PINUS

● = **POLLEN GRAIN**

POLLEN DROP



OVULE

INTEGUMENT

M

MICROPYLE

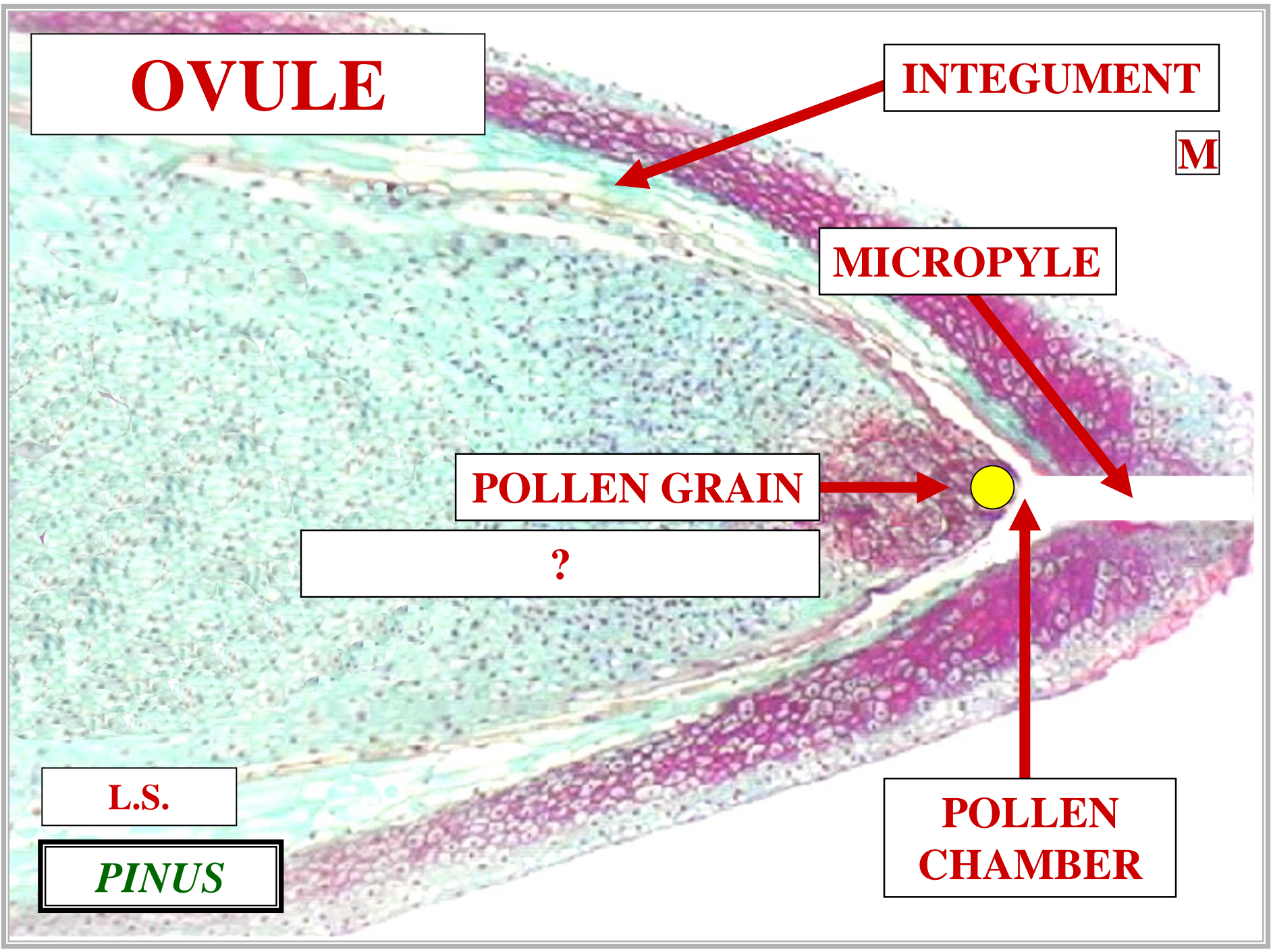
POLLEN GRAIN

?

L.S.

PINUS

POLLEN CHAMBER



OVULE

INTEGUMENT

=

MICROPYLE

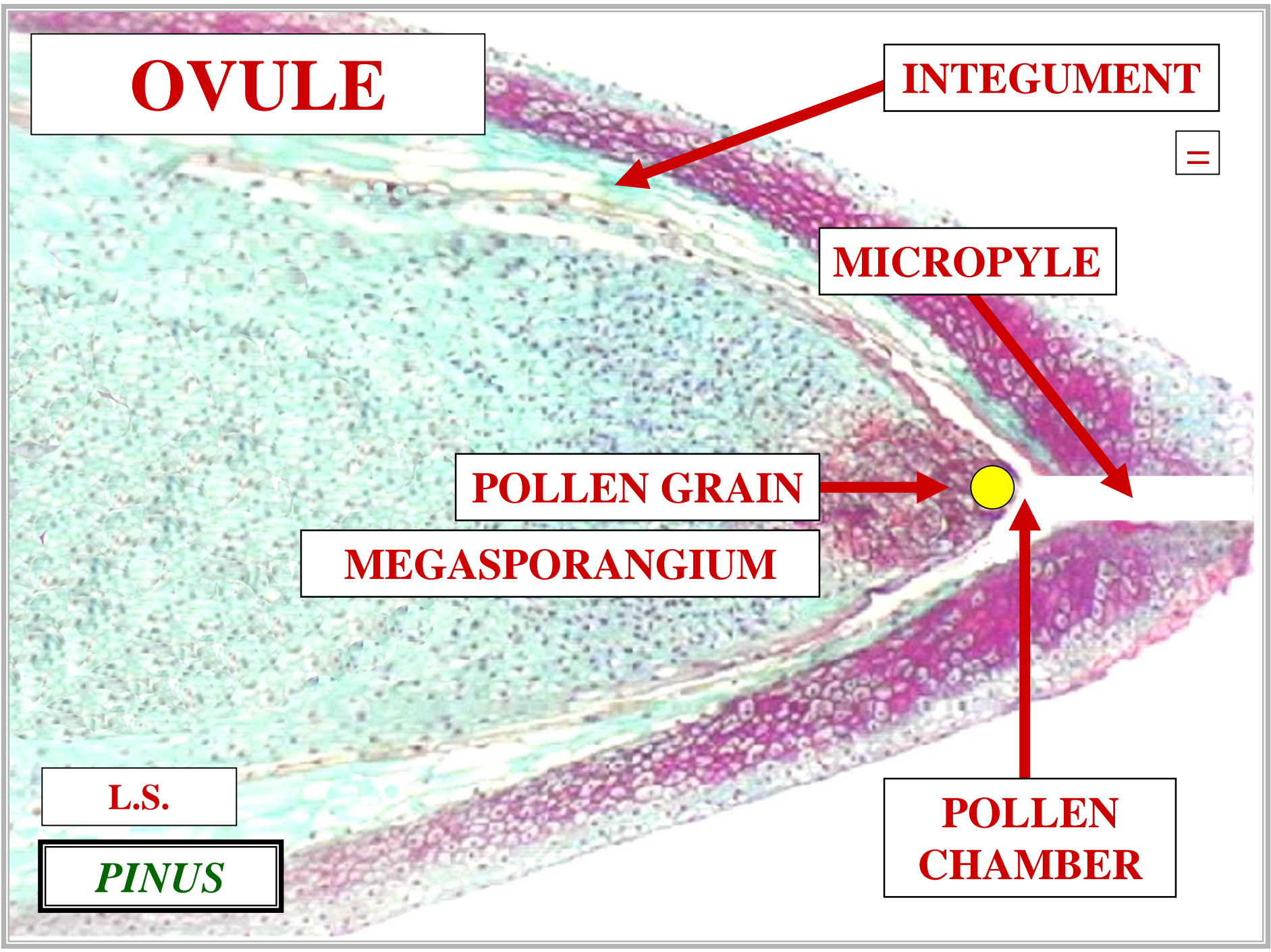
POLLEN GRAIN

MEGASPORANGIUM

L.S.

PINUS

POLLEN CHAMBER



OVULE

INTEGUMENT

?

MICROPYLE

POLLEN GRAIN

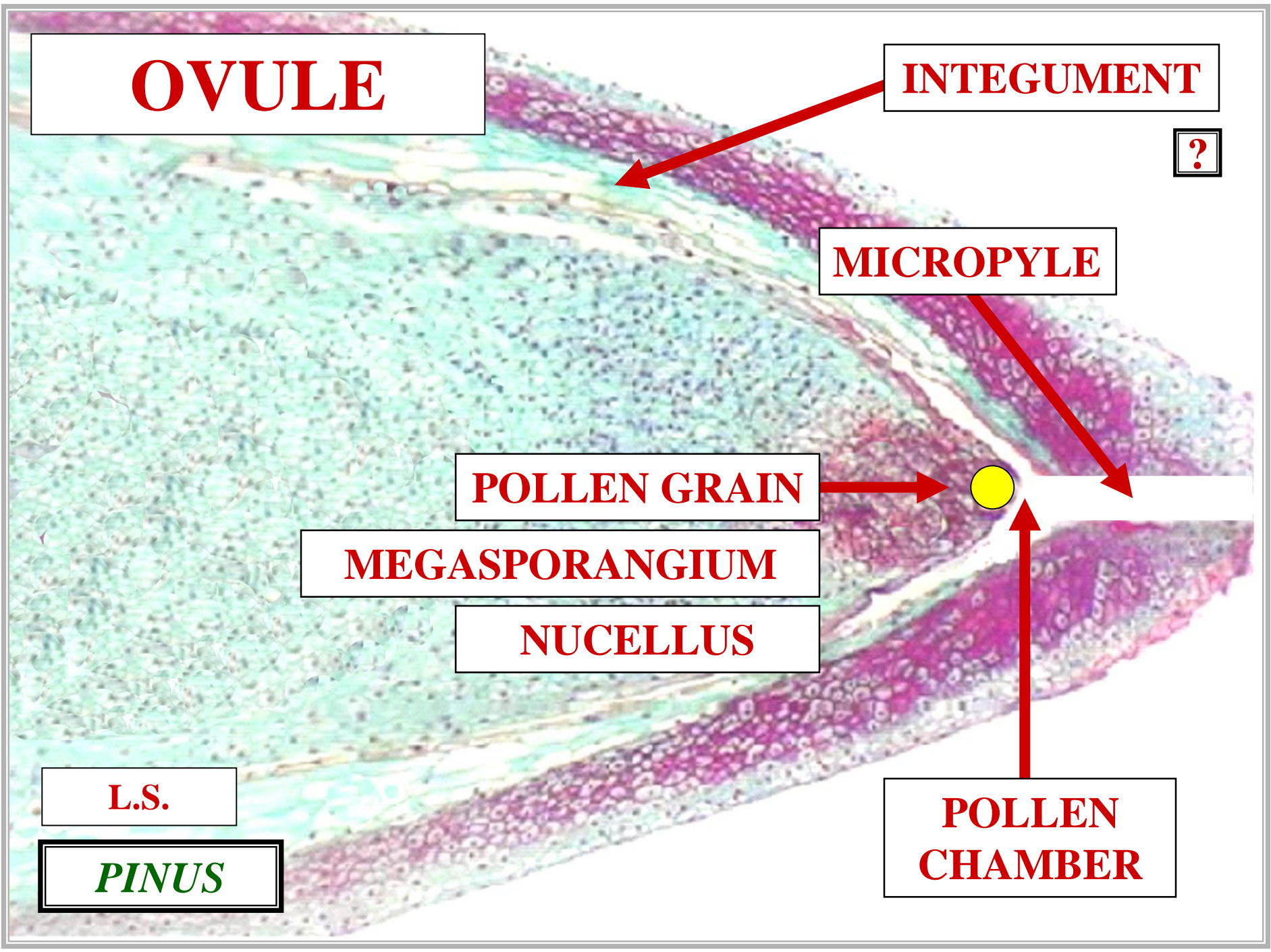
MEGASPORANGIUM

NUCELLUS

L.S.

PINUS

POLLEN CHAMBER



OVULE

INTEGUMENT

P

MICROPYLE

?

POLLEN GRAIN

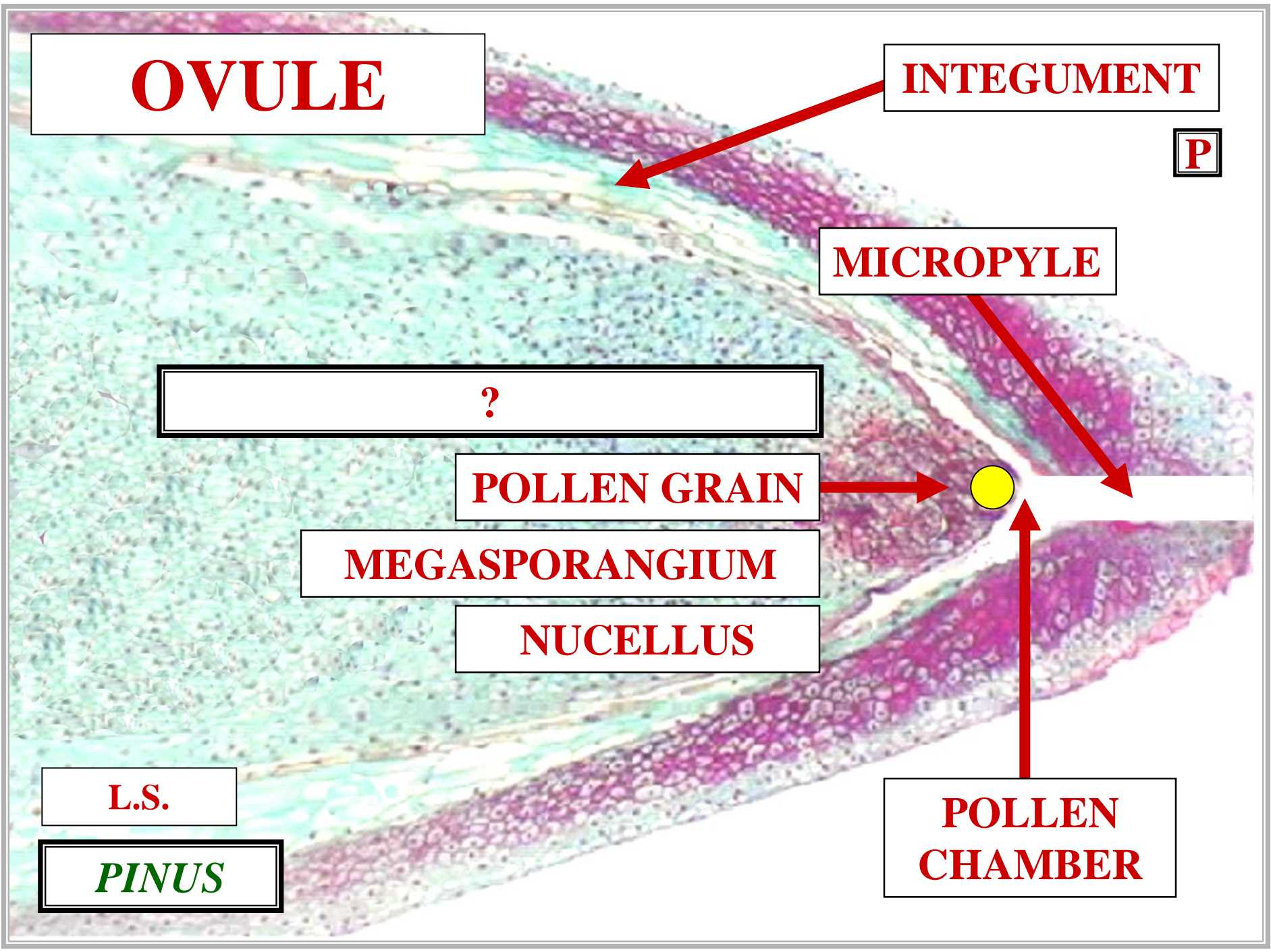
MEGASPORANGIUM

NUCELLUS

L.S.

PINUS

POLLEN CHAMBER



OVULE

INTEGUMENT



MICROPYLE

POLLINATION

POLLEN GRAIN

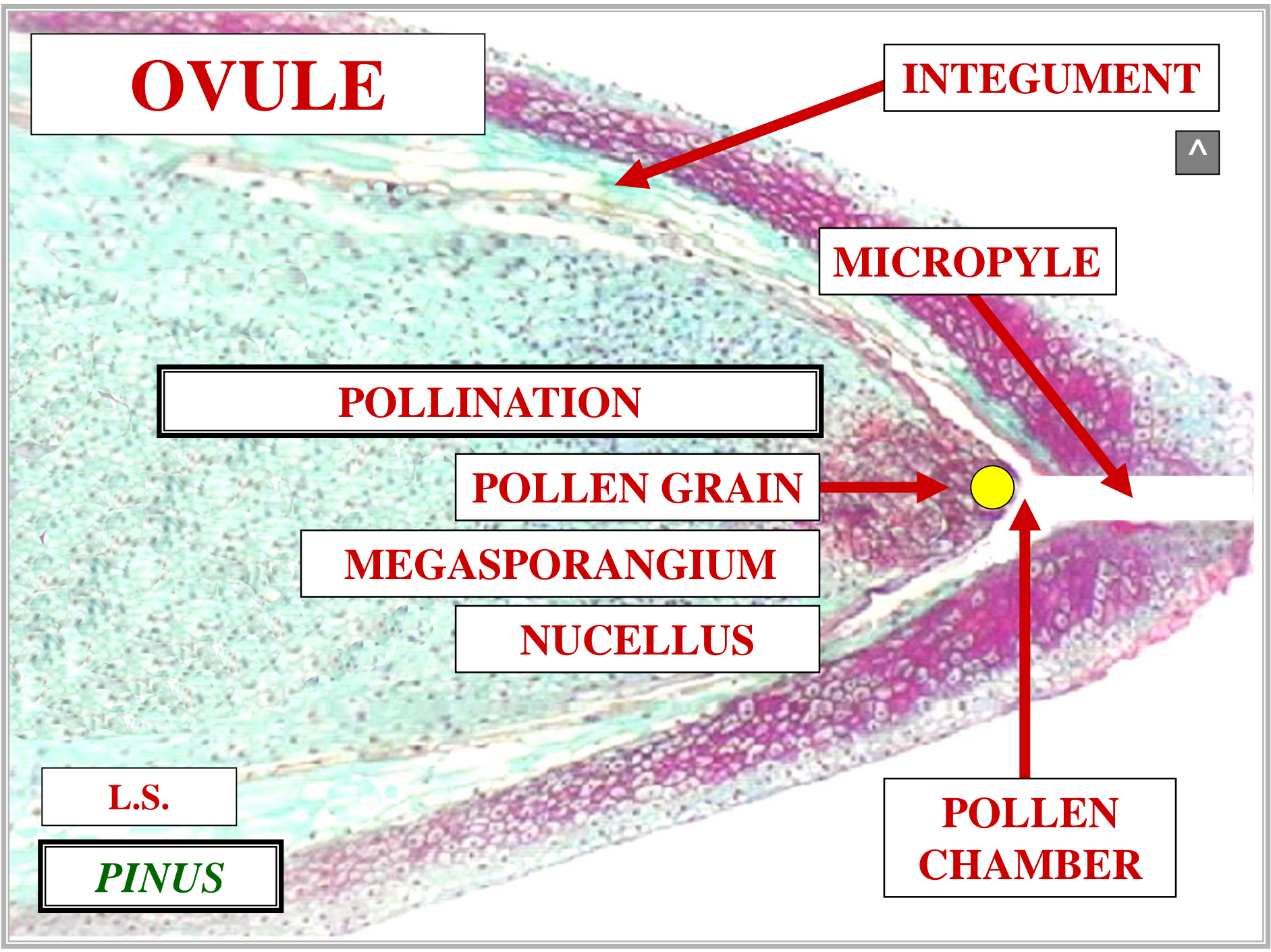
MEGASPORANGIUM

NUCELLUS

L.S.

PINUS

POLLEN CHAMBER



POLLINATION MODES

SELF POLLINATION

**ANGIOSPERM
SELF POLLINATION**



**PLANT POLLINATES
SELF**

**ANGIOSPERM
SELF POLLINATION**



PLANT

 = **POLLEN GRAIN**



PLANT

 = **POLLEN GRAIN**



PLANT

SELF POLLINATION

CROSS POLLINATION

**ANGIOSPERM
CROSS POLLINATION**



**PLANT POLLINATES
SECOND PLANT**

**ANGIOSPERM
CROSS POLLINATION**



PLANT 1



PLANT 2

 = **POLLEN GRAIN**



PLANT 1



PLANT 2

 = **POLLEN GRAIN**



PLANT 1



PLANT 2

 = **POLLEN GRAIN**



PLANT 1



PLANT 2

 = **POLLEN GRAIN**



PLANT 1



PLANT 2

CROSS POLLINATION



PLANT 1



PLANT 2

PLTS PREFER CROSS POLLINATION



PLANT 1



PLANT 2

ENSURES GENETIC DIVERSITY



**PERFECT FLOWER
PLANTS
POLLINATION**



**PERFECT
FLOWER**

PLANT

TO AVOID SELF POLLINATION

DICHOGAMY

ANGIOSPERM



POLLINATION DICHOGAMY

ANDROCECIUM

AND

GYNOECIUM

MATURE AT DIFFERENT TIMES

ANGIOSPERM

POLLINATION DICHOGAMY