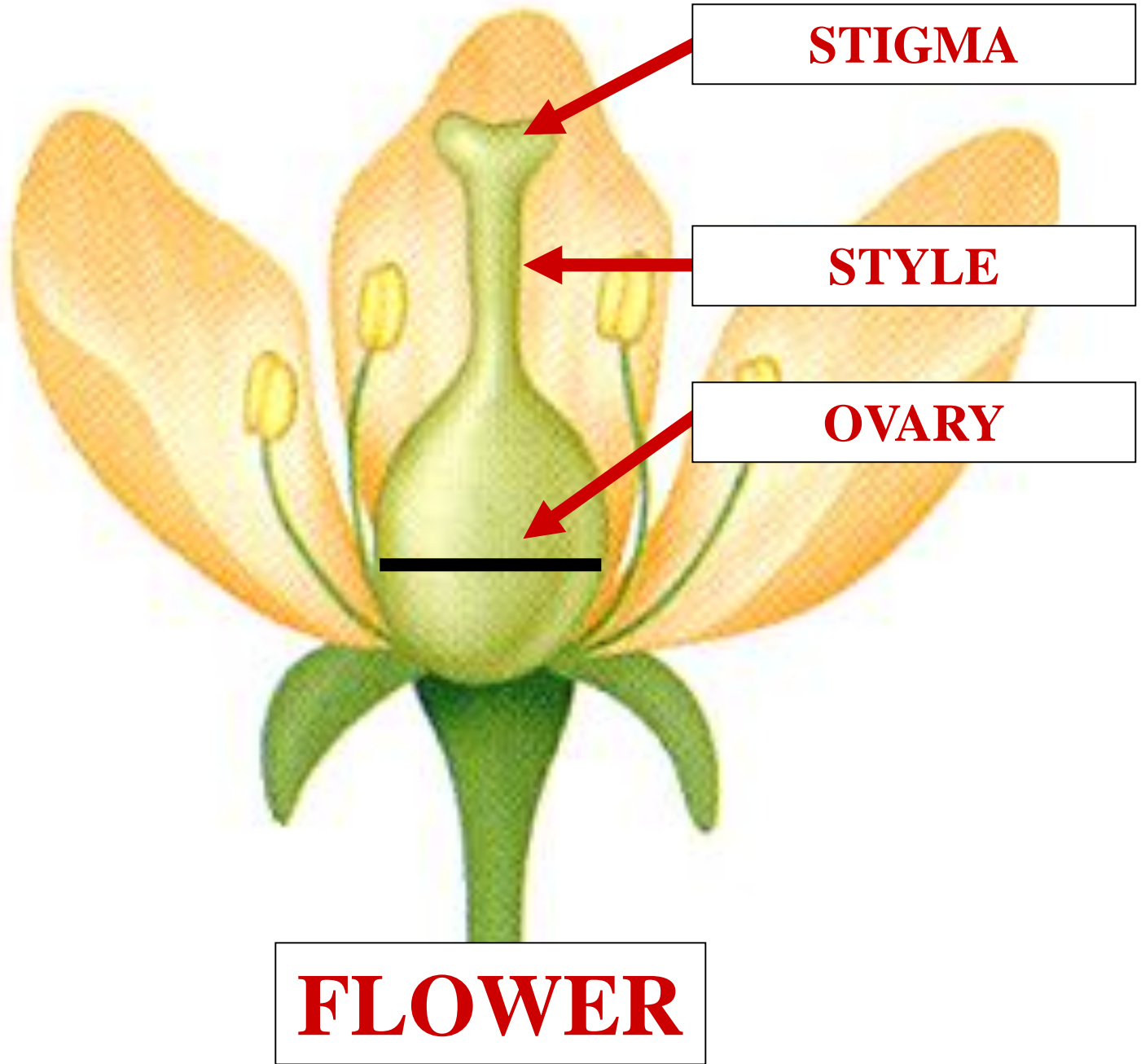


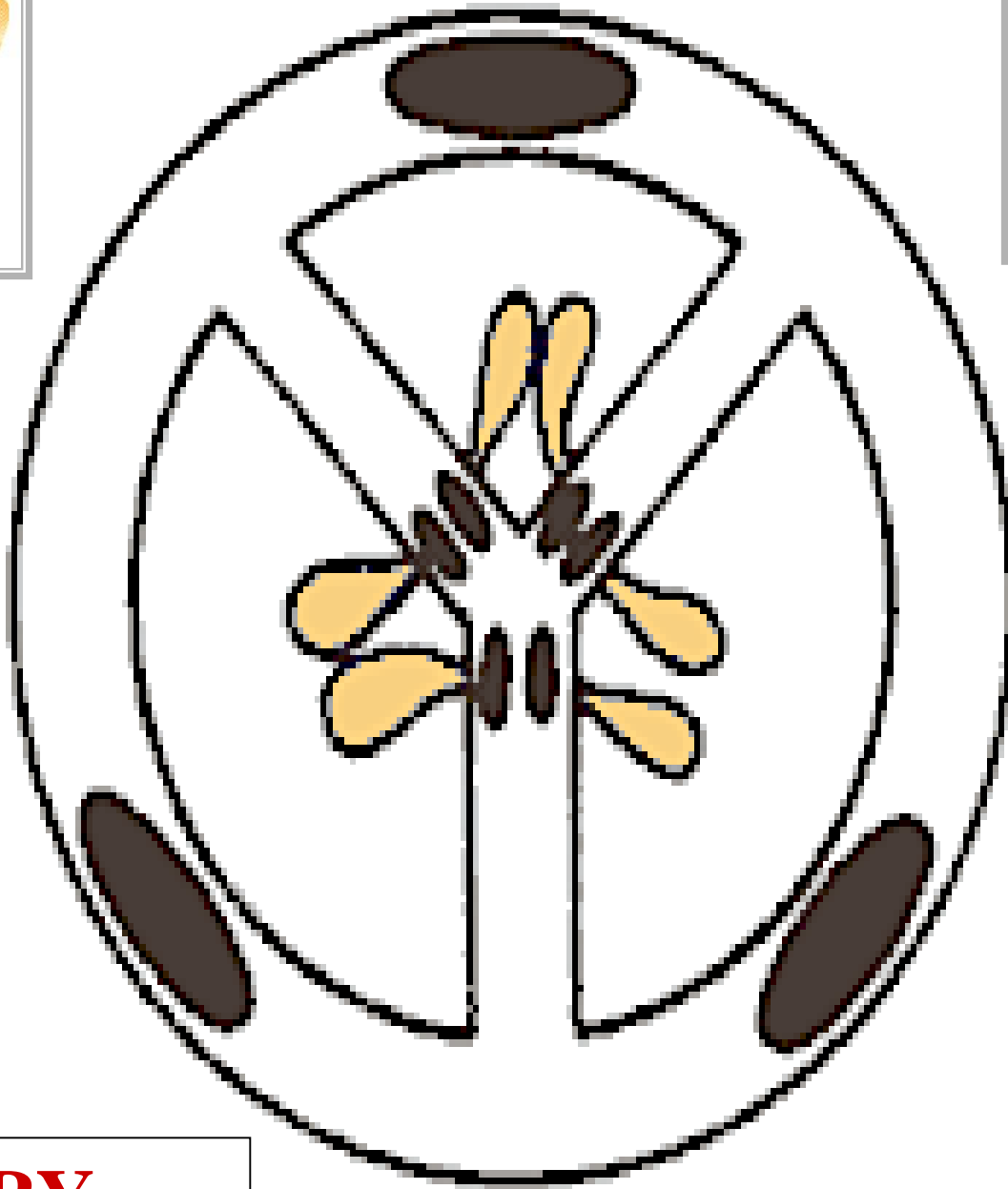
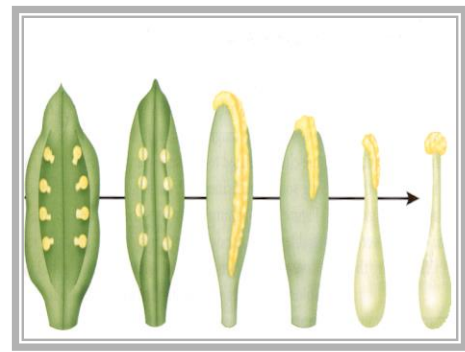
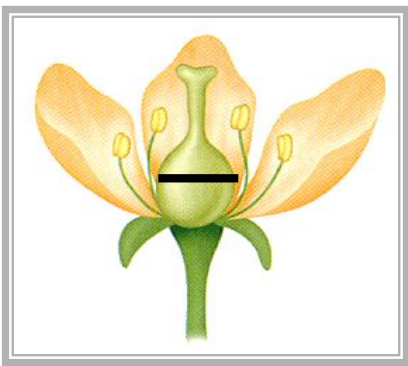
**STIGMA**

**STYLE**

**OVARY**

**FLOWER**

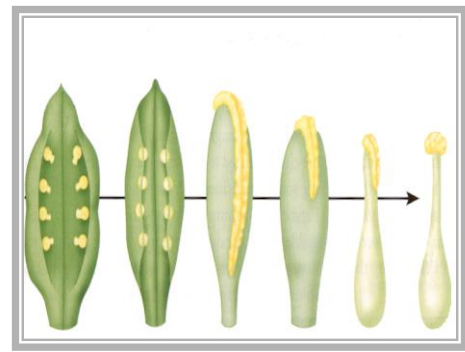
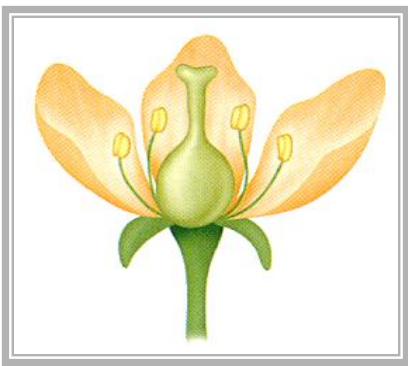




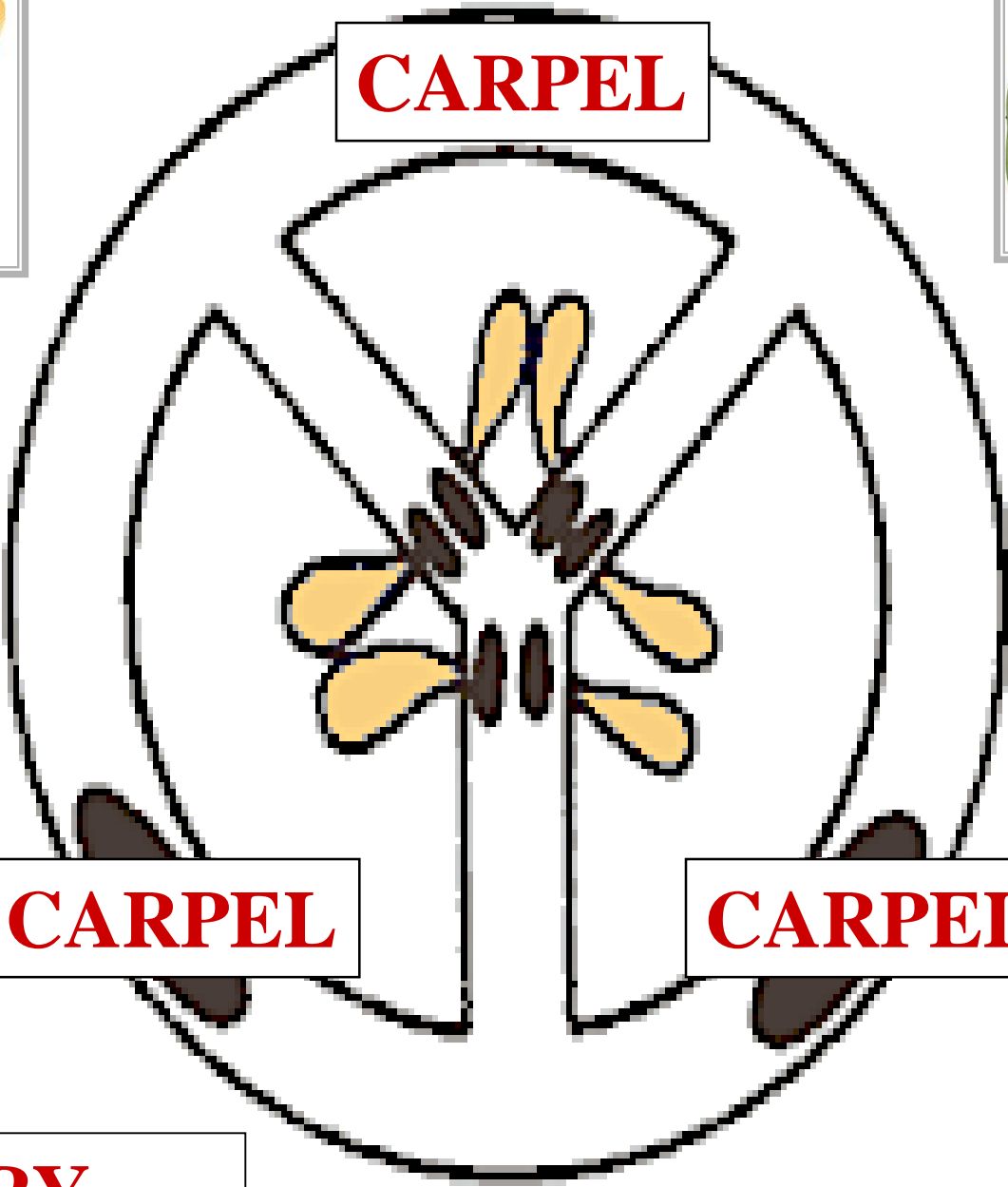
3C

**OVARY**

**C.S.**



**L**



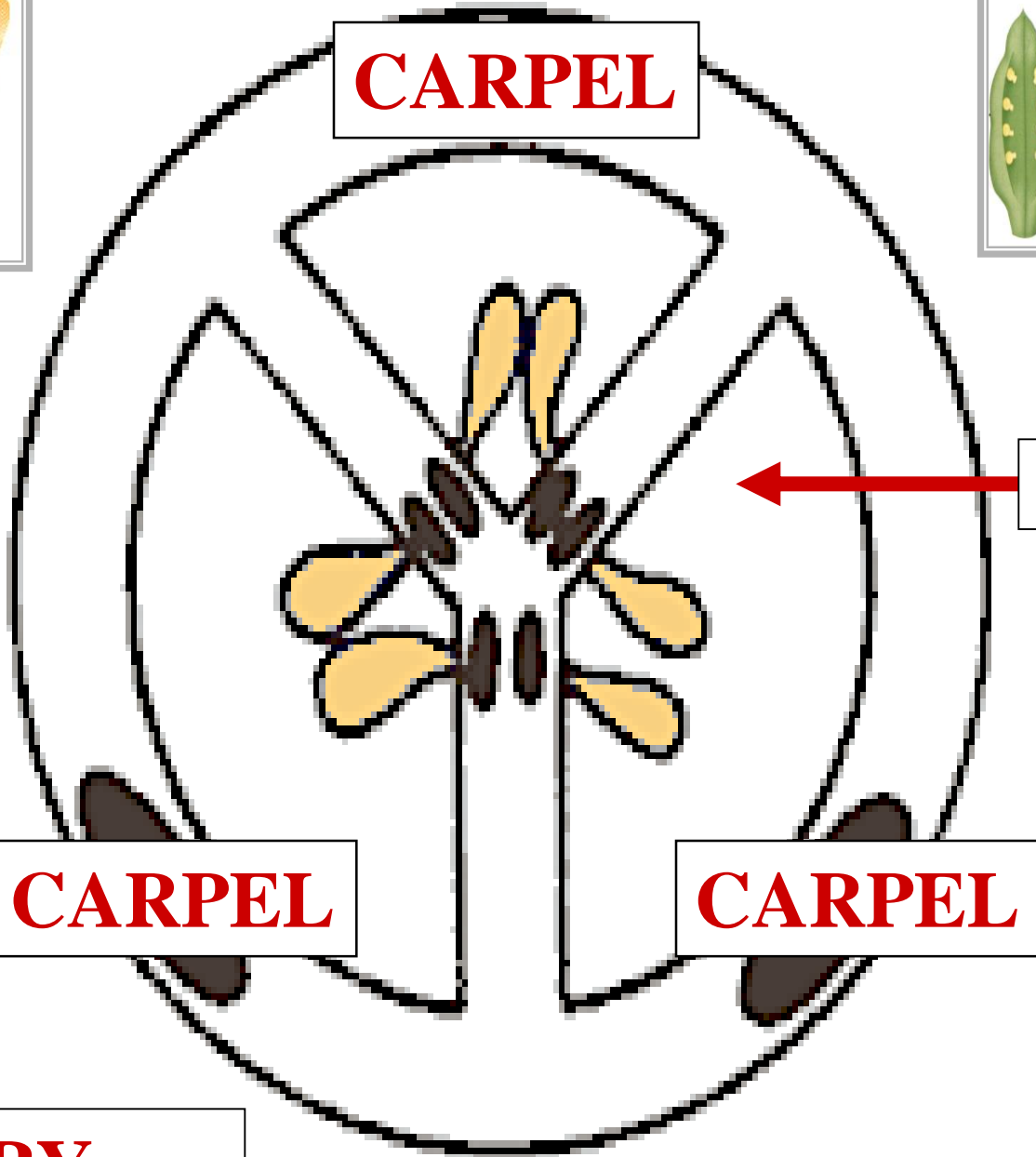
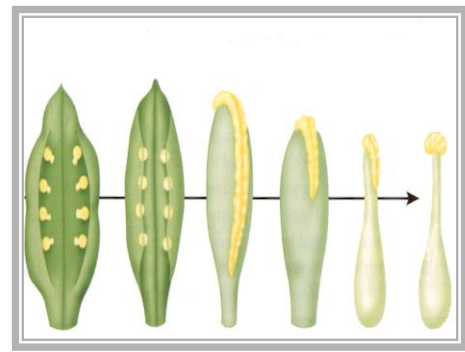
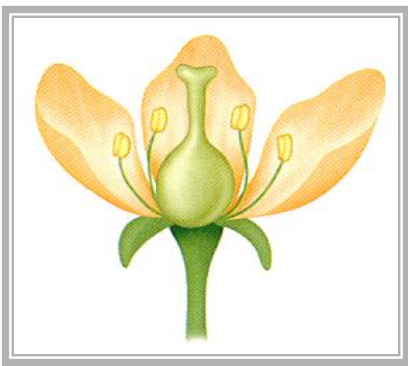
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**CARPEL**

**CARPEL**

**OVARY**

**C.S.**



**CARPEL**

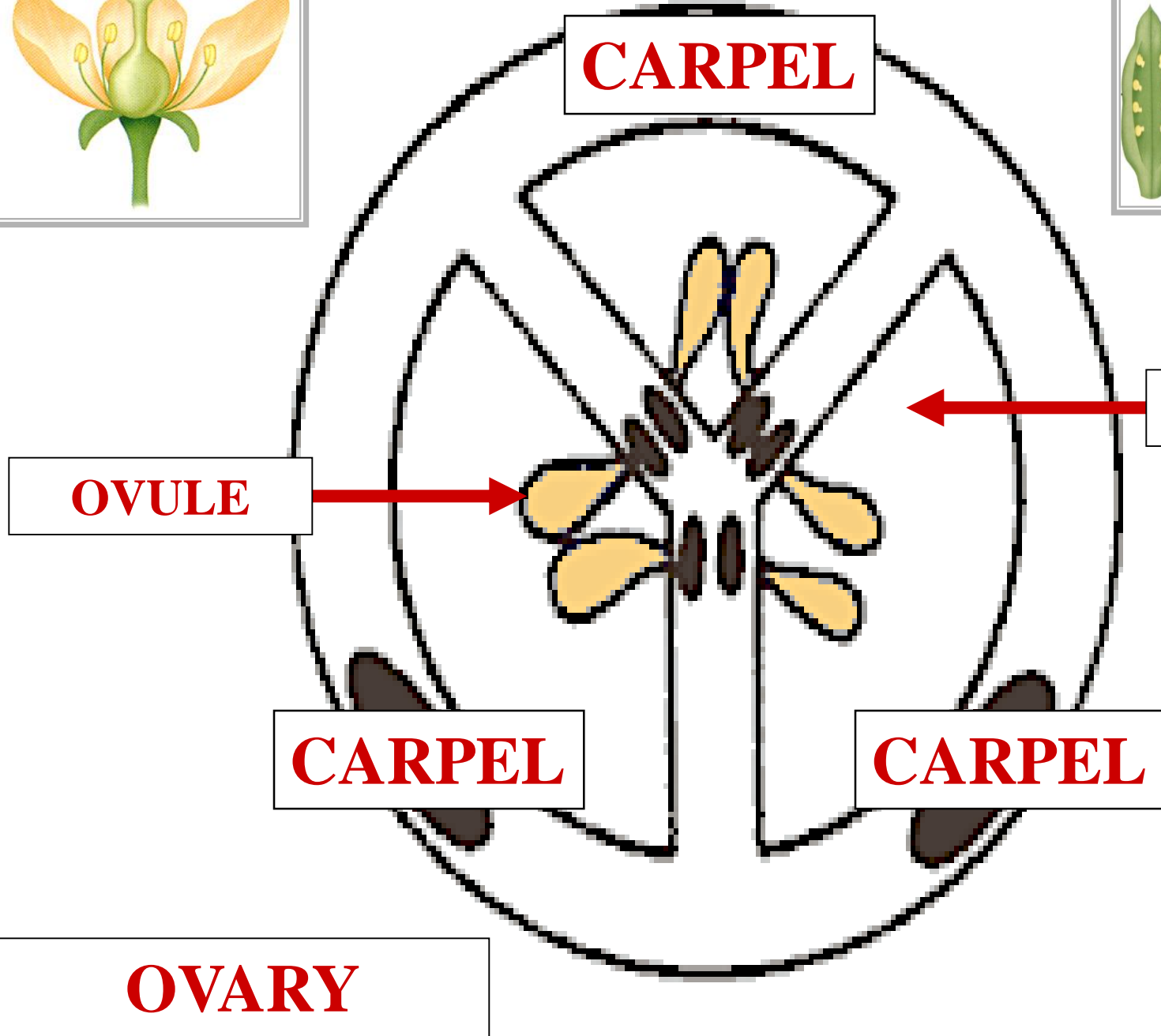
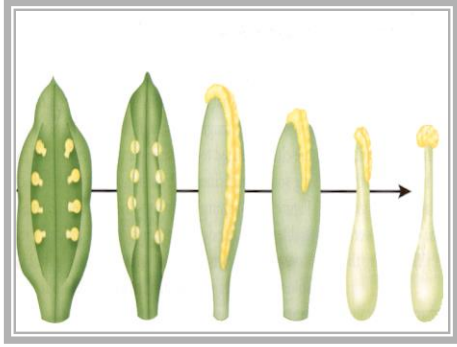
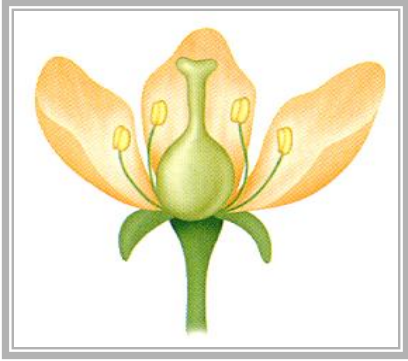
**LOCULE**

**CARPEL**

**CARPEL**

**OVARY**

**C.S.**



C.S.



**OVULE**



**L.S.**



**OVULE**

**L.S.**

**INTEGUMENT**

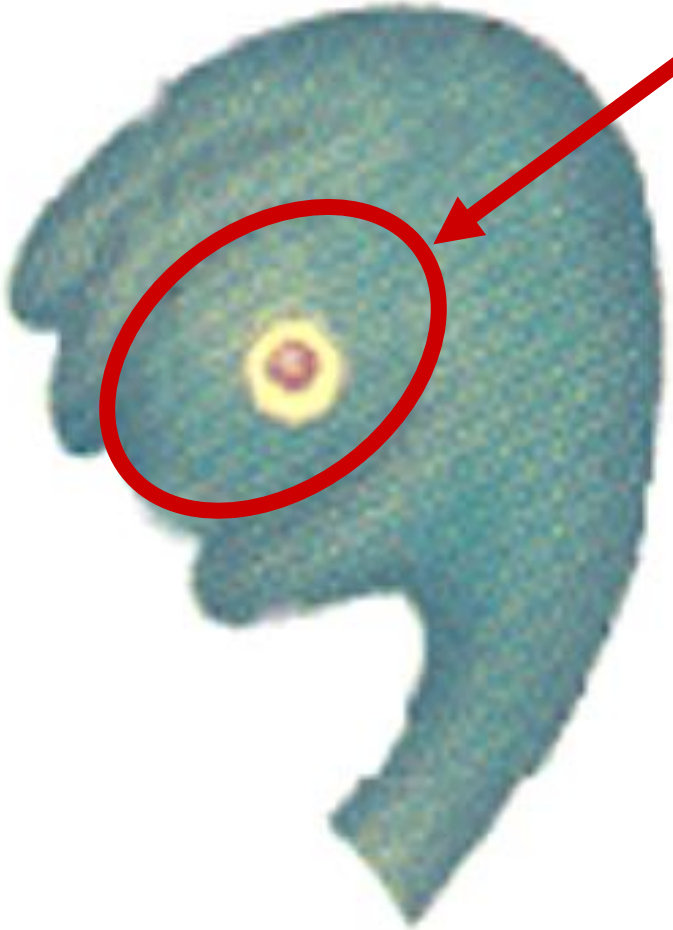






**MEGASPORANGIUM**

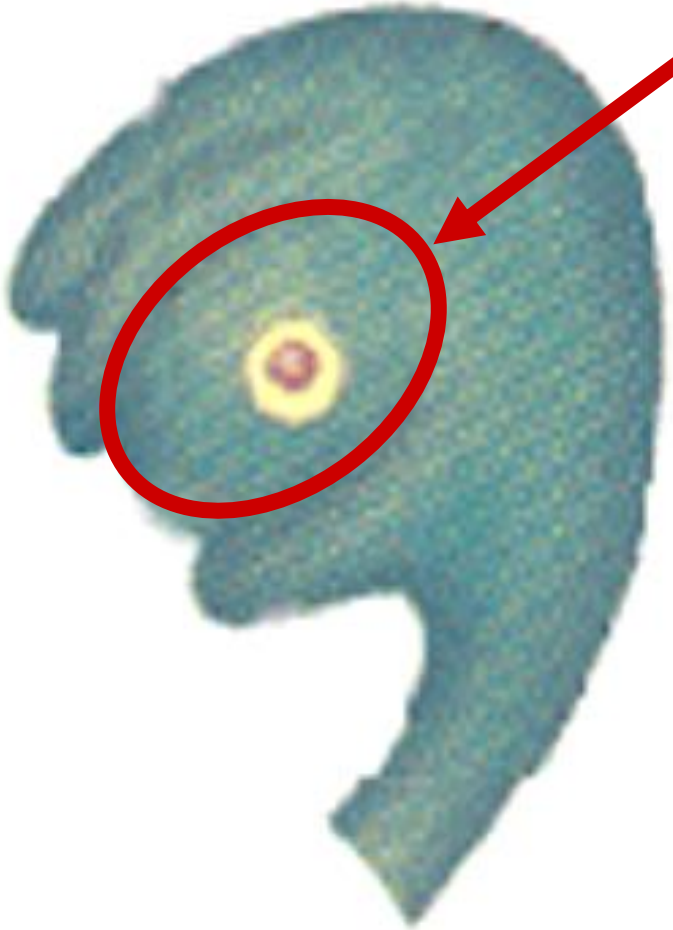
**OVULE**



**L.S.**



**OVULE**

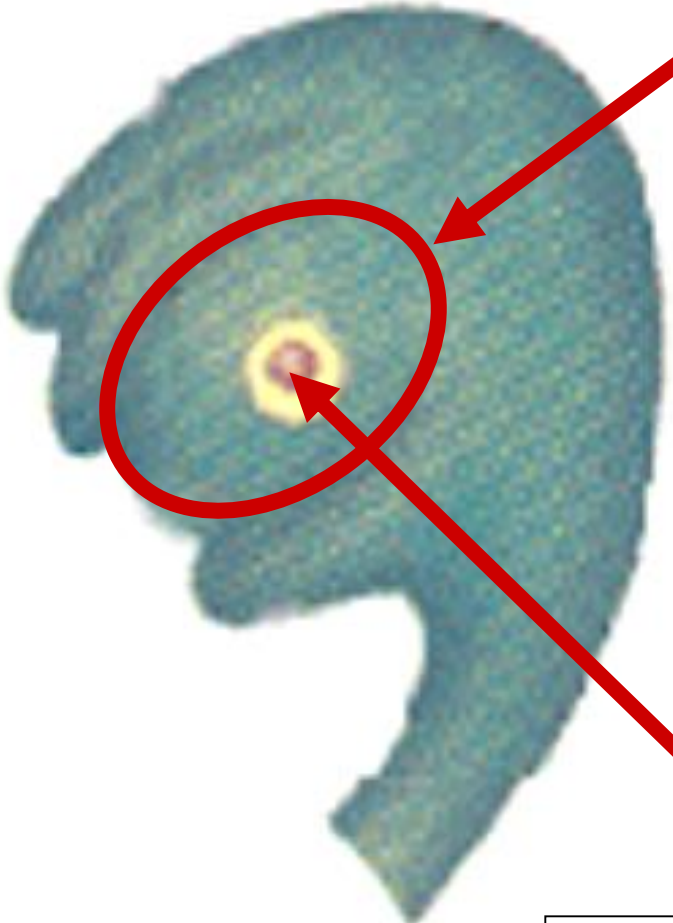


**NUCELLUS**

**L.S.**



**OVULE**



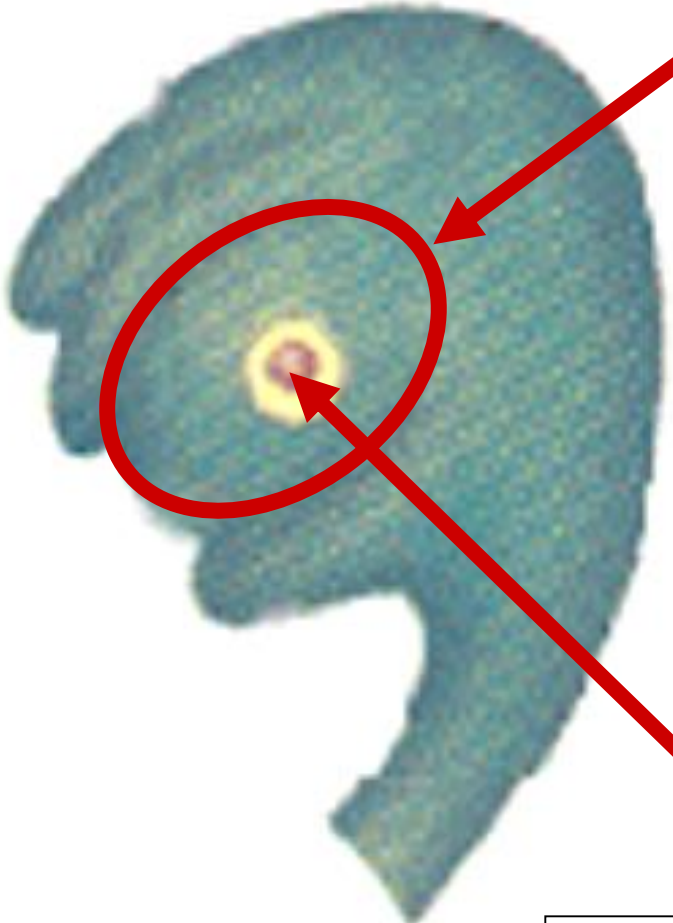
**MEGASPORANGIUM**

**MEGASPOROCYTE**

**L.S.**



**OVULE**



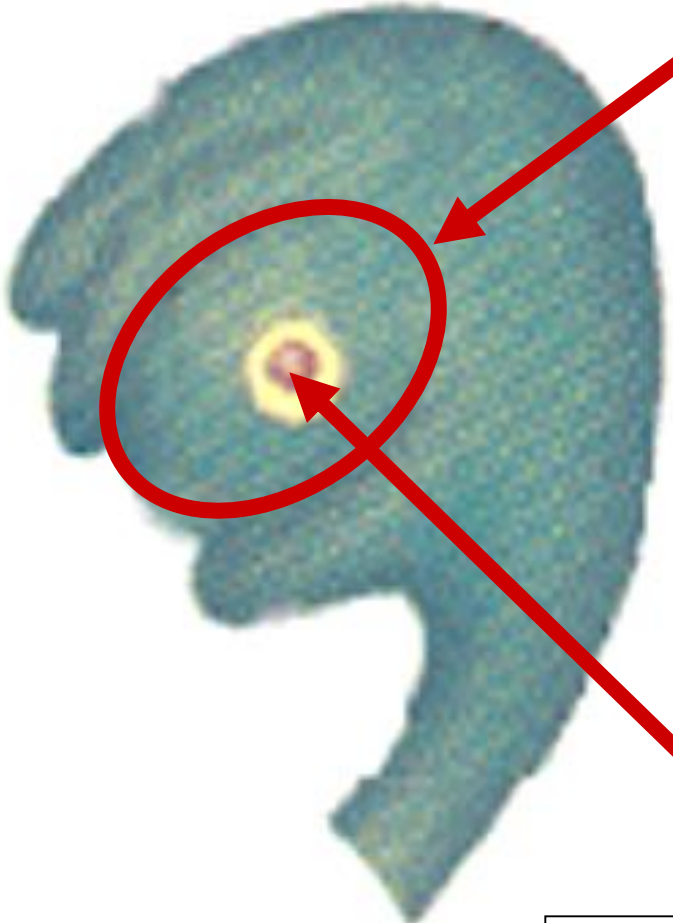
**MEGASPORANGIUM**

**2N**

**L.S.**



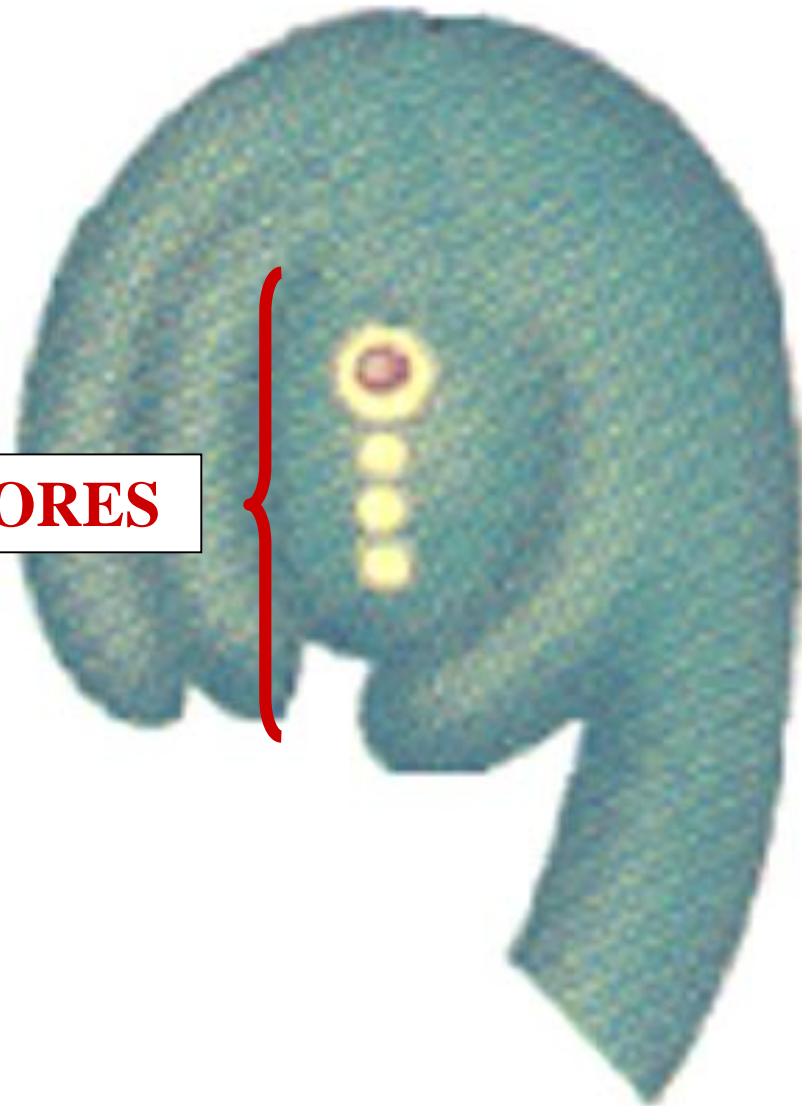
**OVULE**



**MEGASPORANGIUM**

**MEIOSIS**

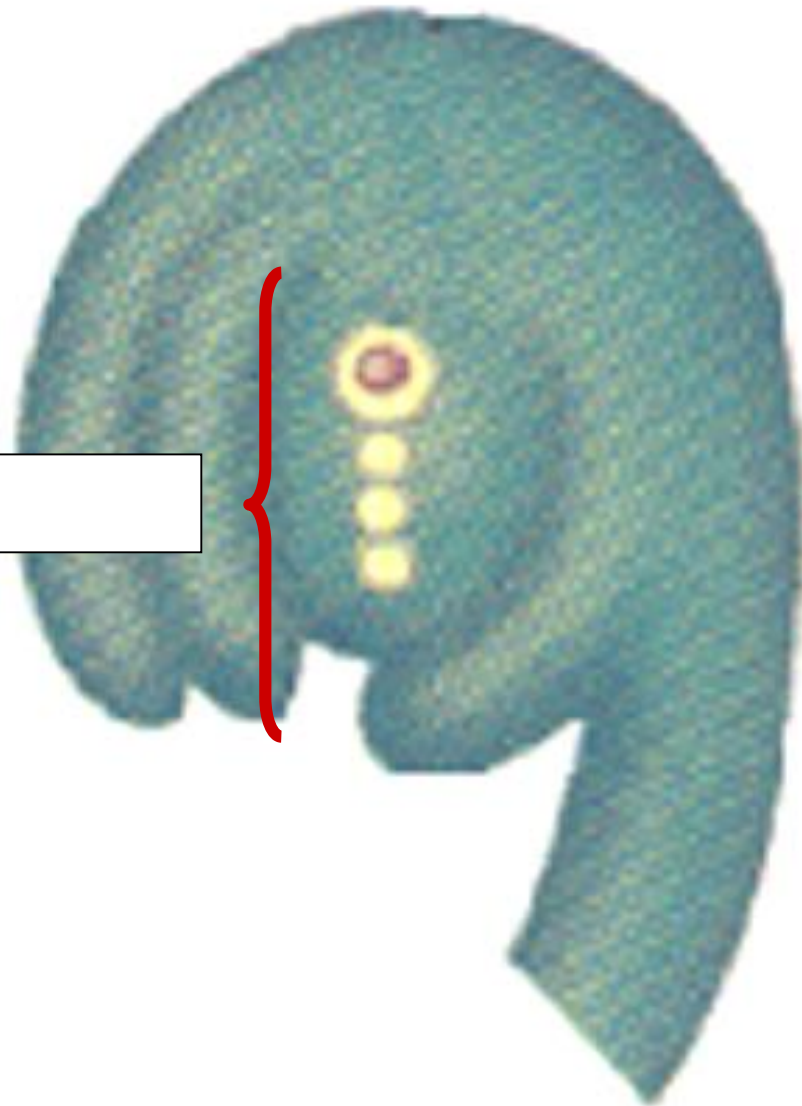
**L.S.**



**MEGASPORES**

**L.S.**

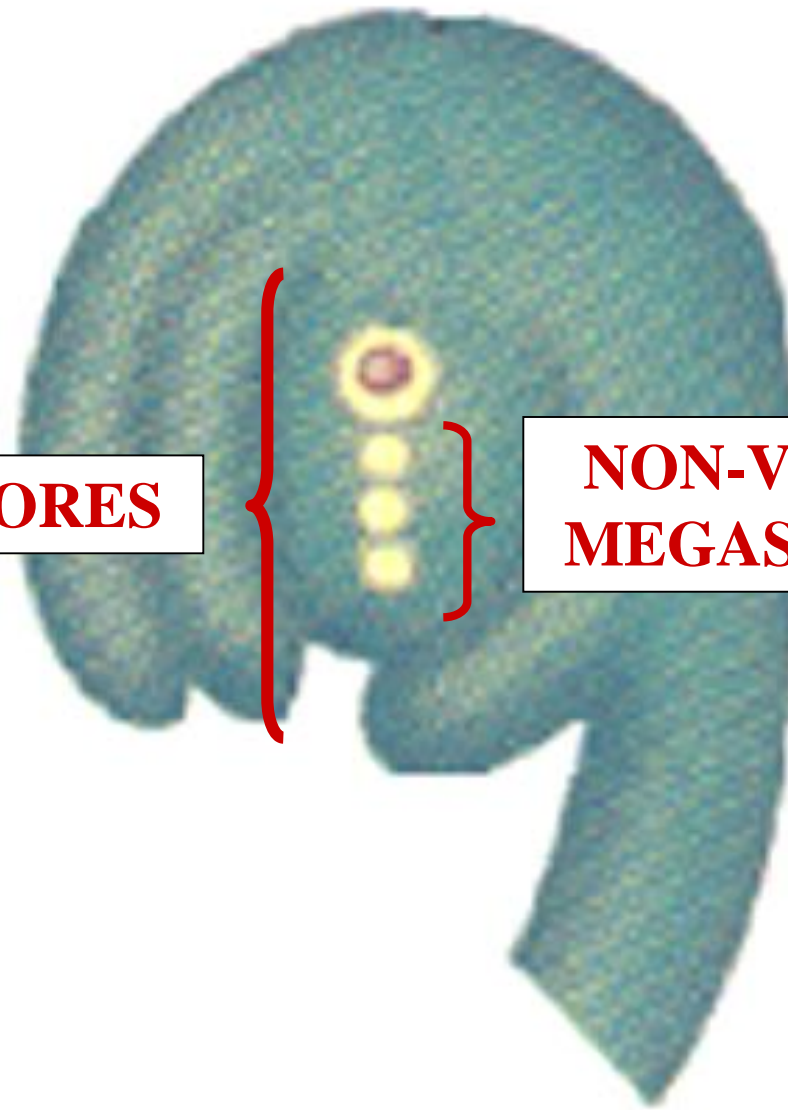
**OVULE**



**1N**

**L.S.**

**OVULE**



**MEGASPORES**

**NON-VIABLE  
MEGASPORES**

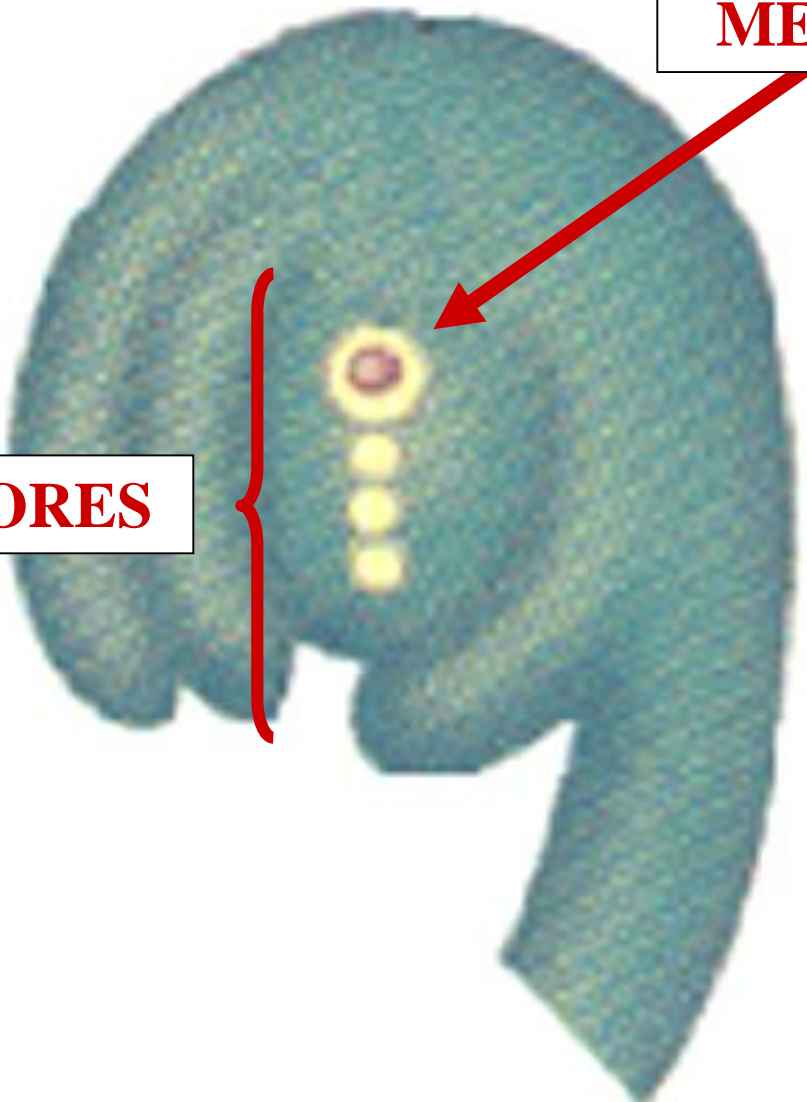
**L.S.**

**OVULE**





**VIABLE  
MEGASPORE**



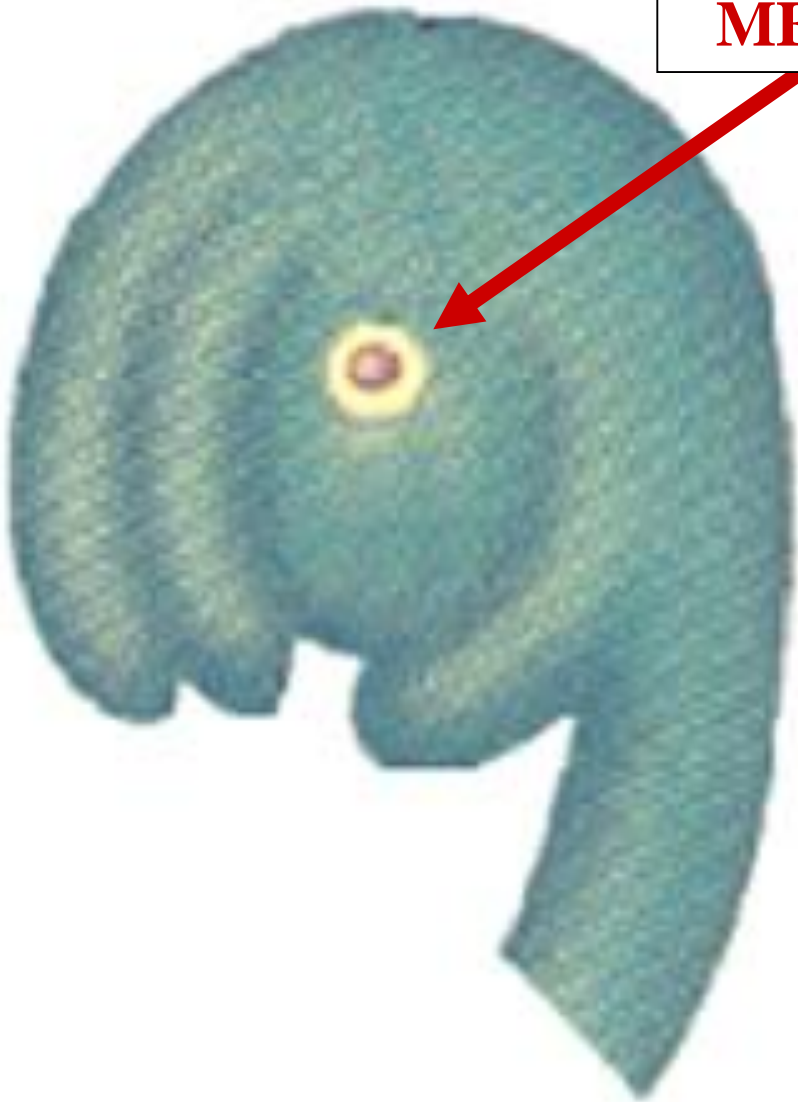
**MEGASPORES**

**L.S.**

**OVULE**



**VIABLE  
MEGASPORE**

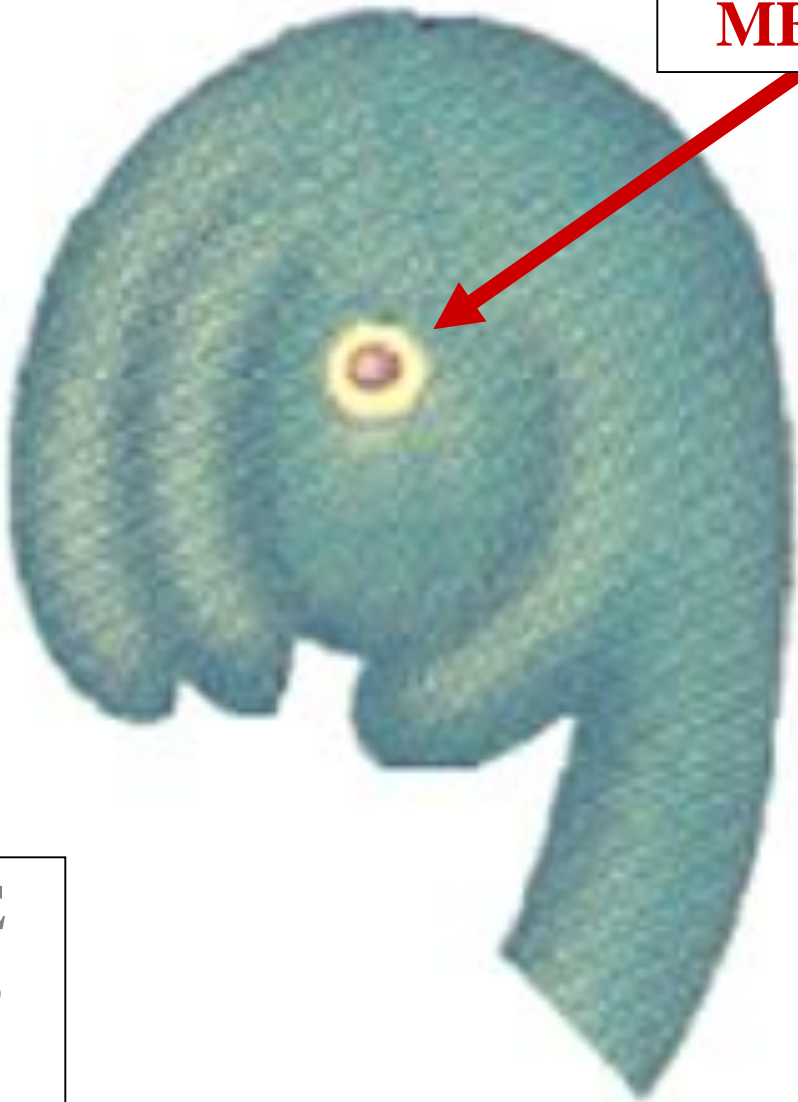


**L.S.**

**OVULE**



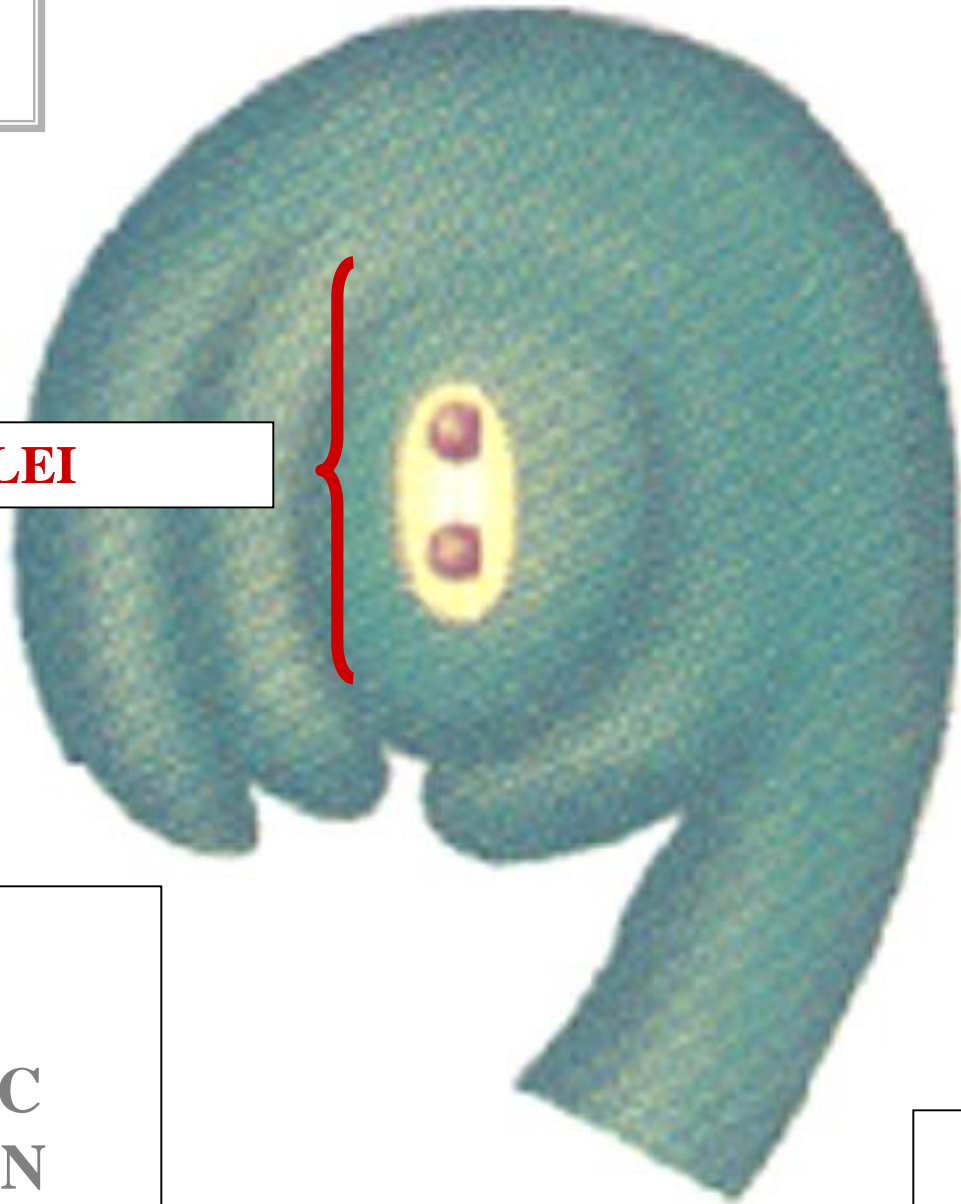
**VIABLE  
MEGASPORE**



**MEGASPORE  
UNDERGOES  
3 MITOTIC  
DIVISIONS**

**L.S.**

**OVULE**

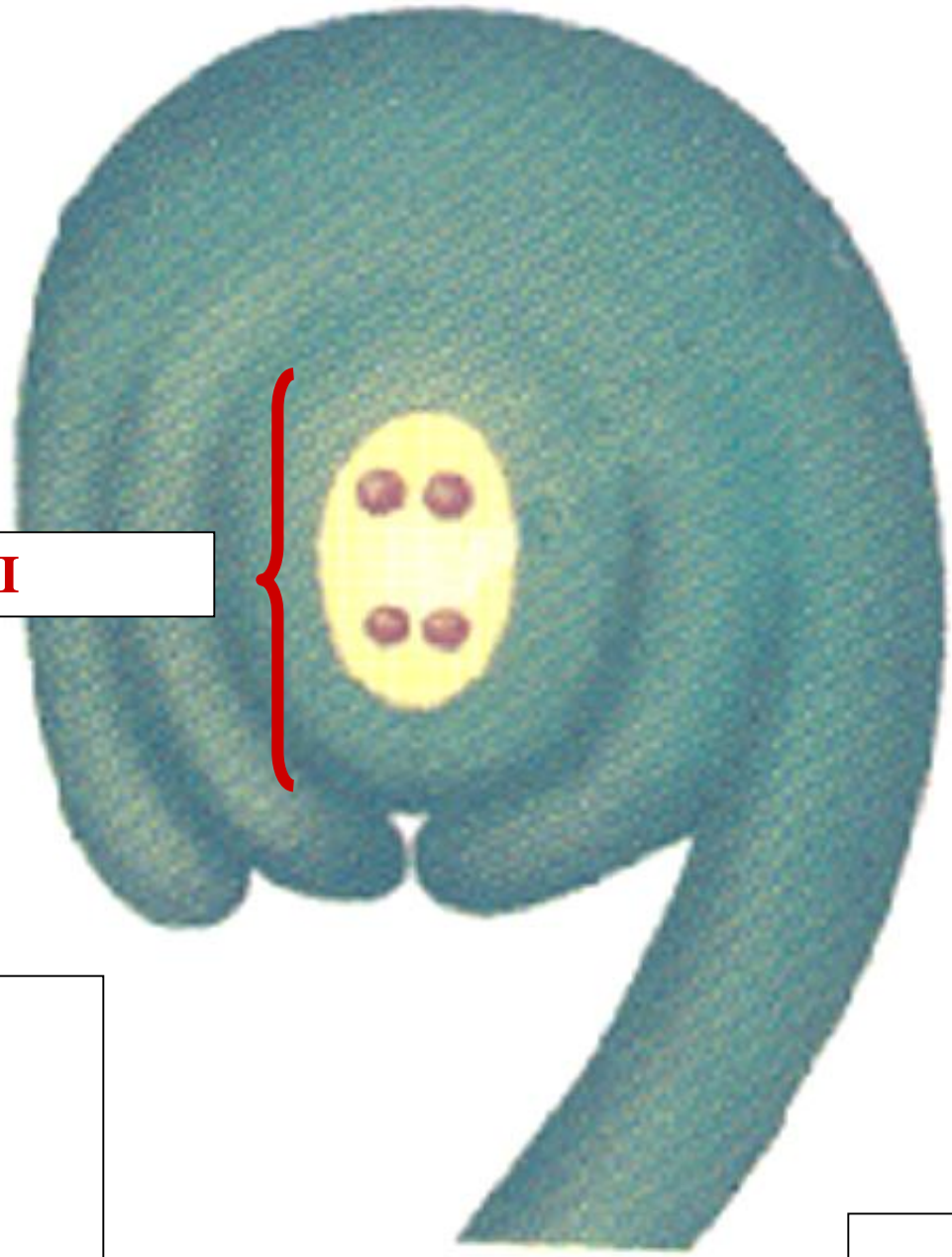


**2 NUCLEI**

**POST  
1ST  
MITOTIC  
DIVISION**

**L.S.**

**OVULE**

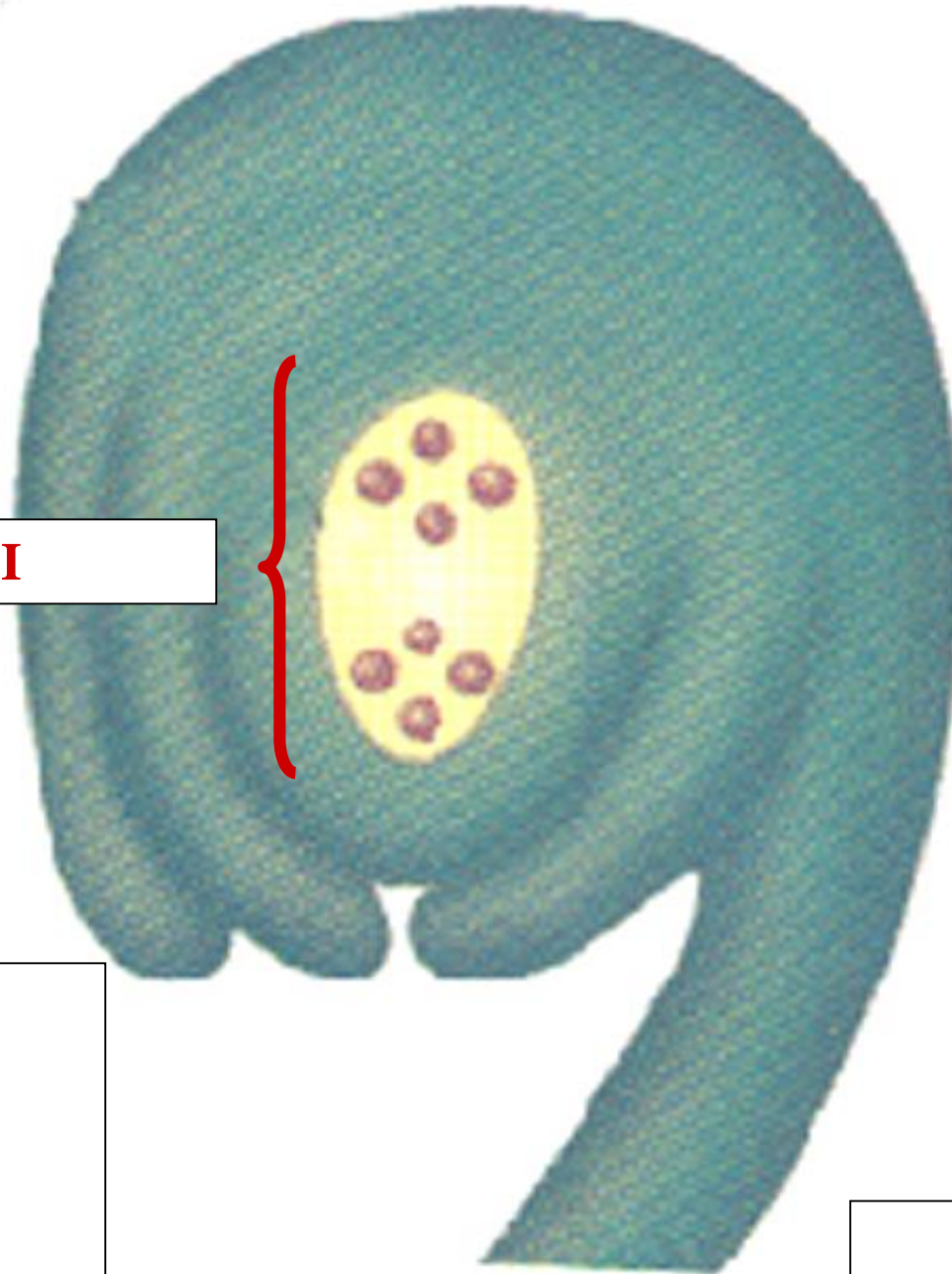


**4 NUCLEI**

**POST  
2ND  
MITOTIC  
DIVISION**

**L.S.**

**OVULE**



**8 NUCLEI**

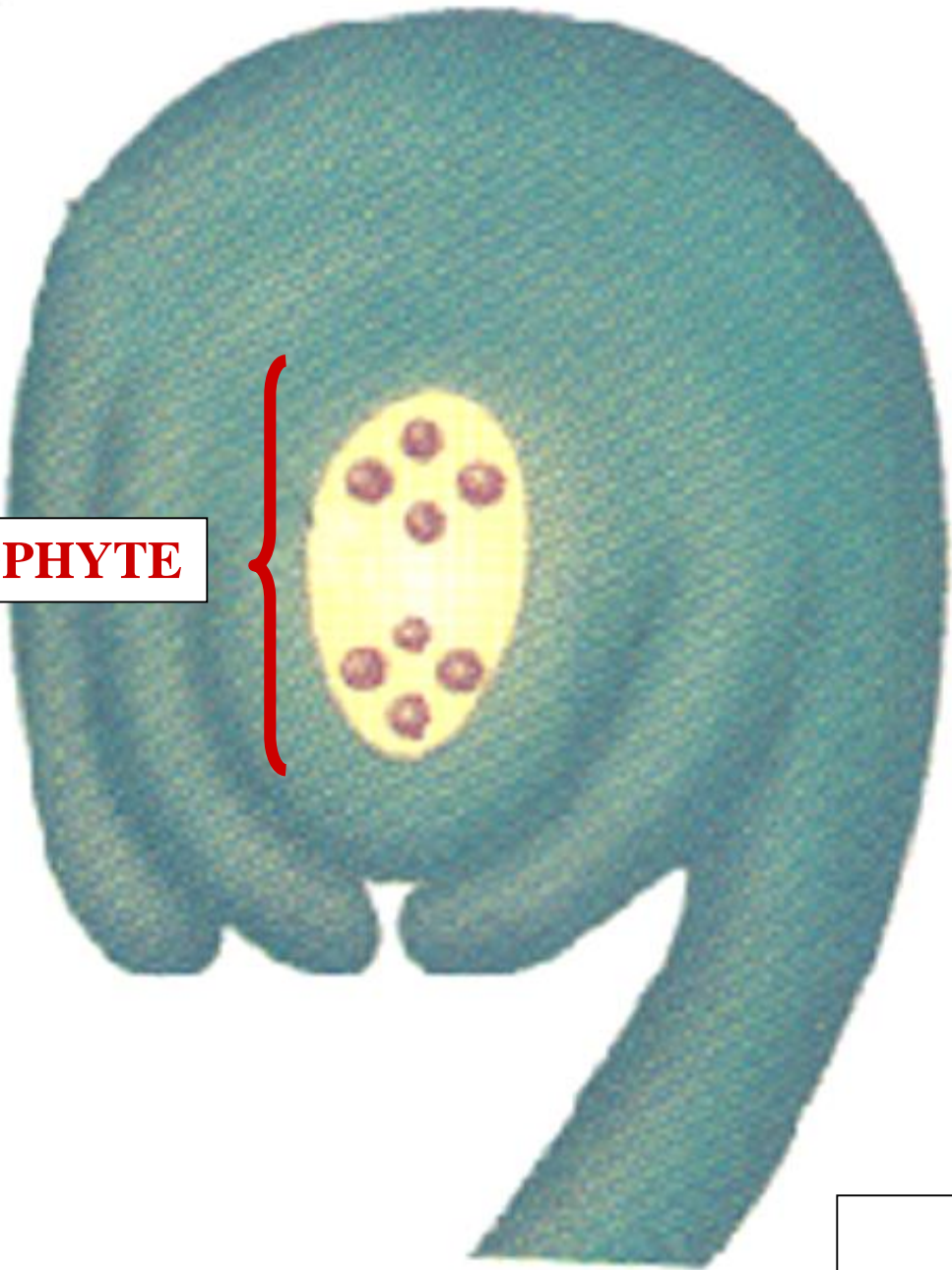
**POST  
3RD  
MITOTIC  
DIVISION**

**L.S.**

**OVULE**

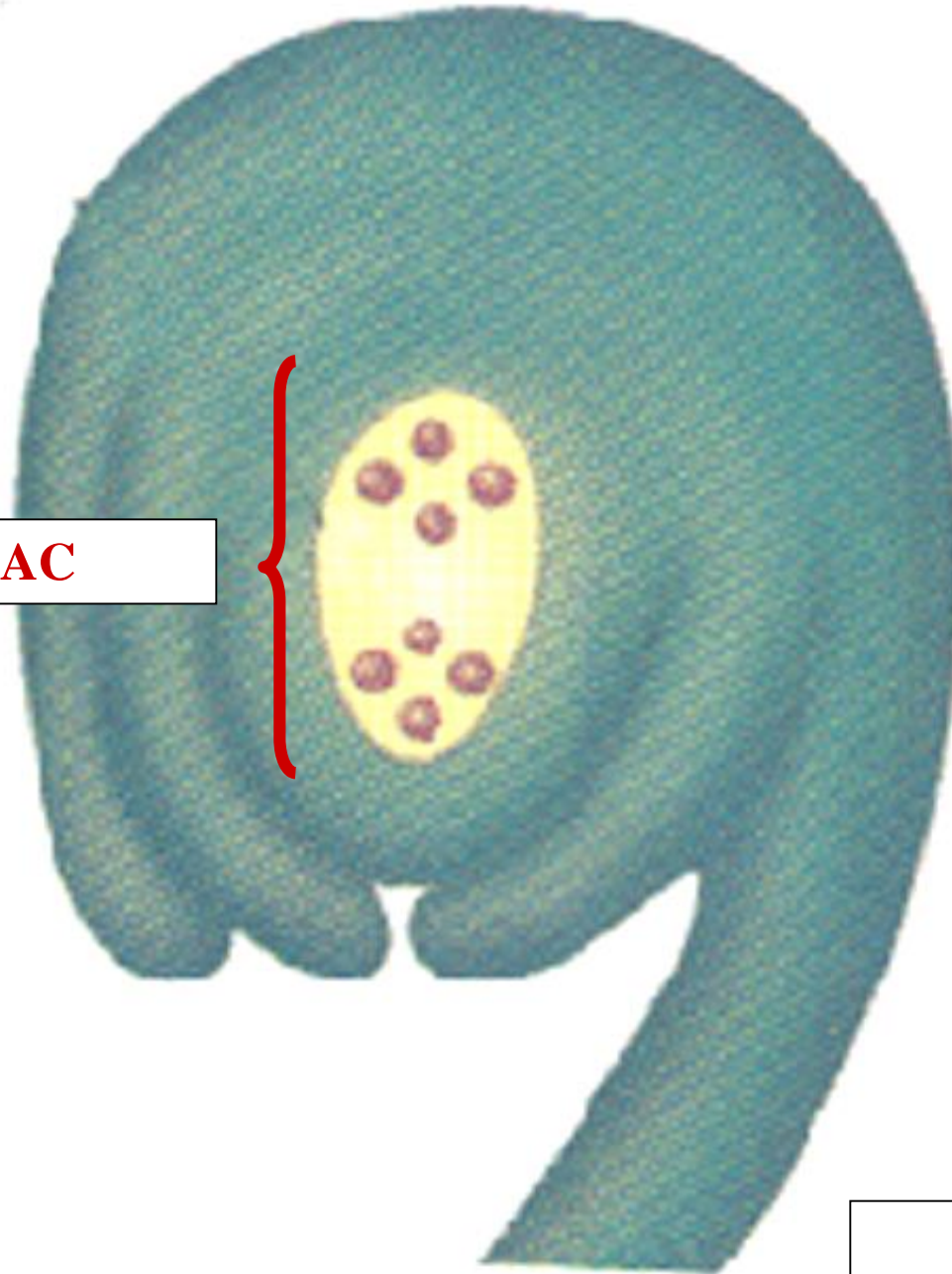


**MEGAGAMETOPHYTE**



**L.S.**

**OVULE**



**EMBRYO SAC**

**L.S.**

**OVULE**



# ANGIOSPERM OVULE

**EMBRYO SAC**  
**7 CELLS**  
**8 NUCLEI**



**OVULE**

**L.S.**



# ANGIOSPERM OVULE

## ARCHEGONIA ABSENT

**EMBRYO SAC**  
**7 CELLS**  
**8 NUCLEI**

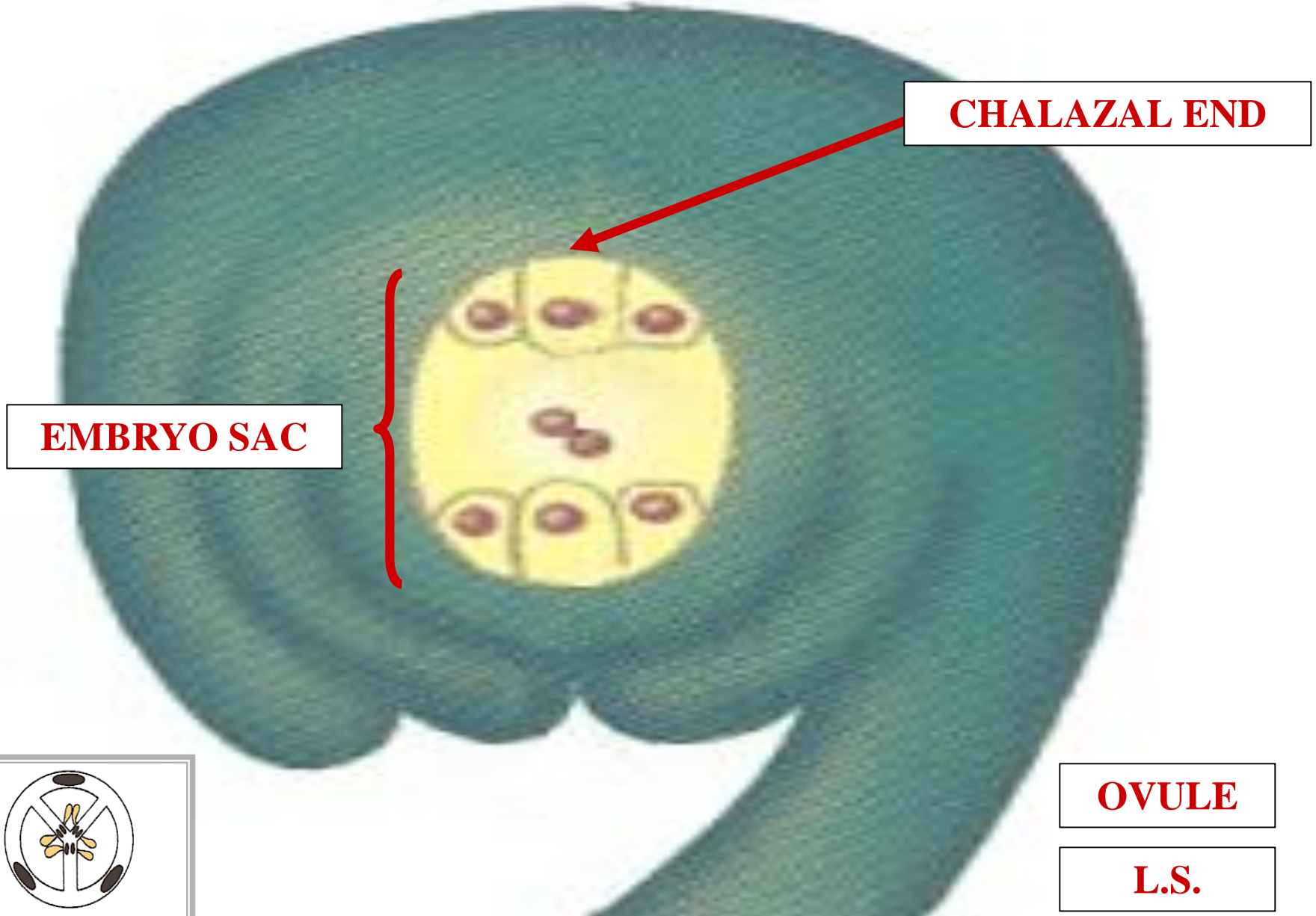


**OVULE**

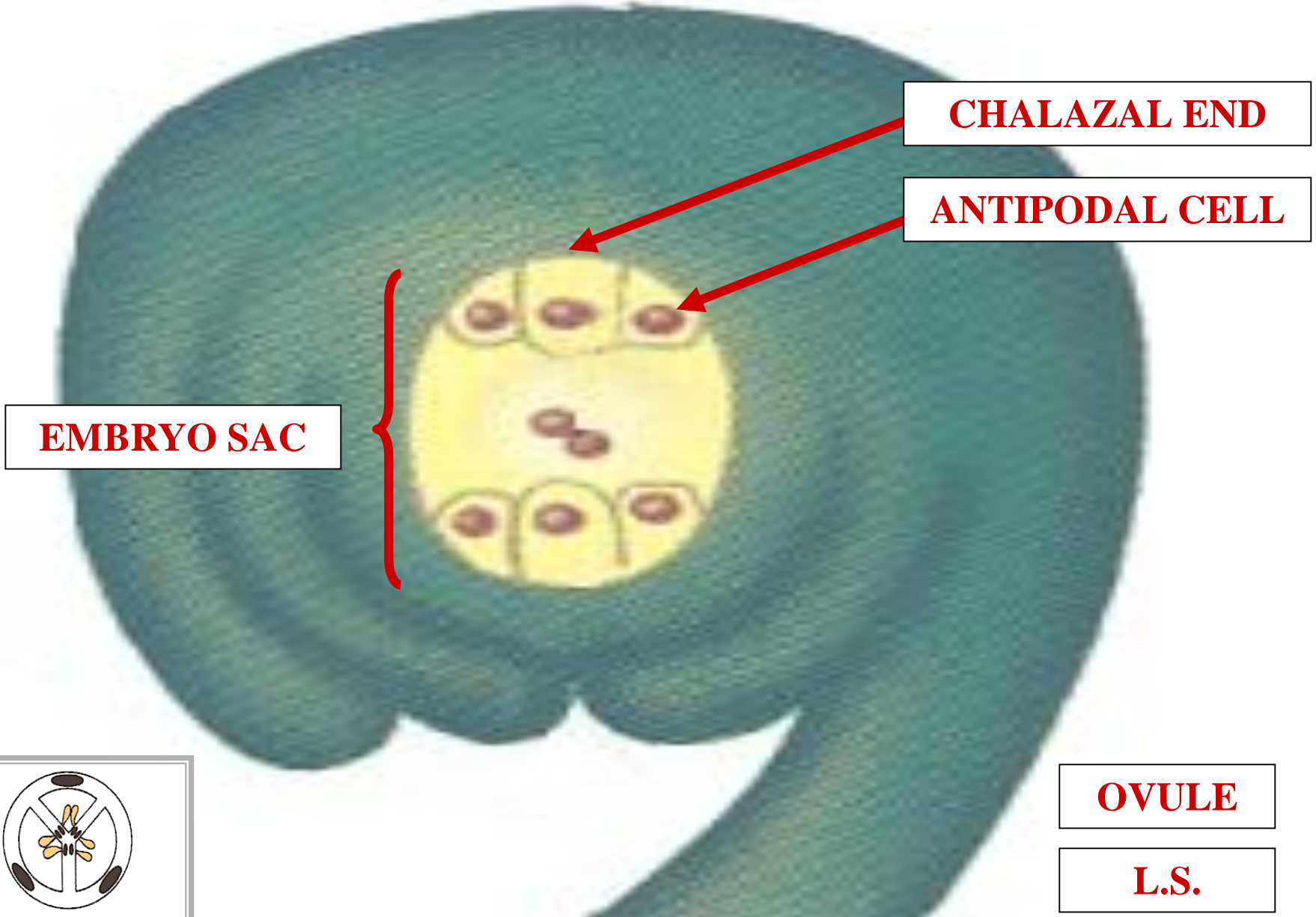
**L.S.**



# ANGIOSPERM OVULE



# ANGIOSPERM OVULE



**CHALAZAL END**

**ANTIPODAL CELL**

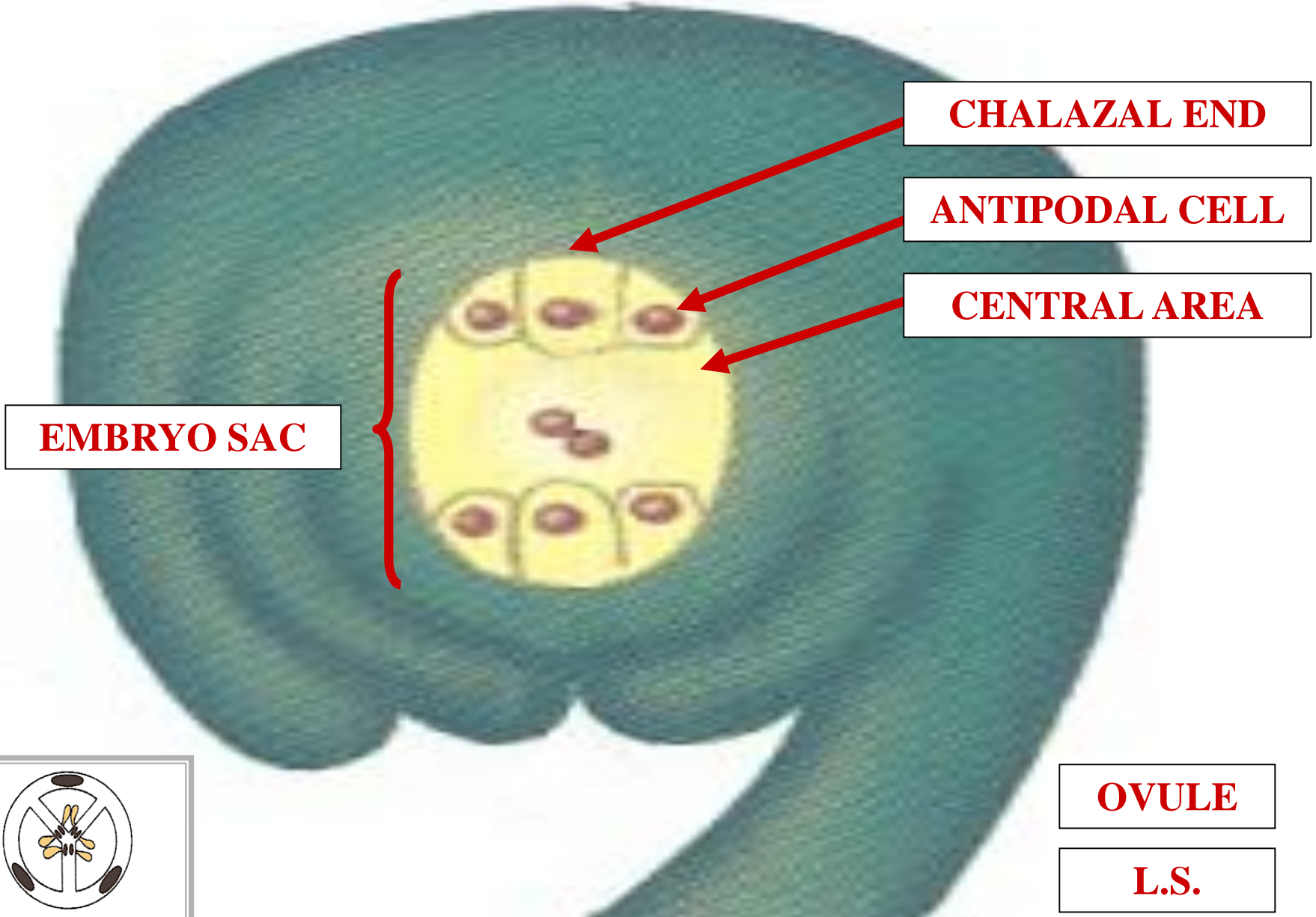
**EMBRYO SAC**

**OVULE**

**L.S.**



# ANGIOSPERM OVULE



**CHALAZAL END**

**ANTIPODAL CELL**

**CENTRAL AREA**

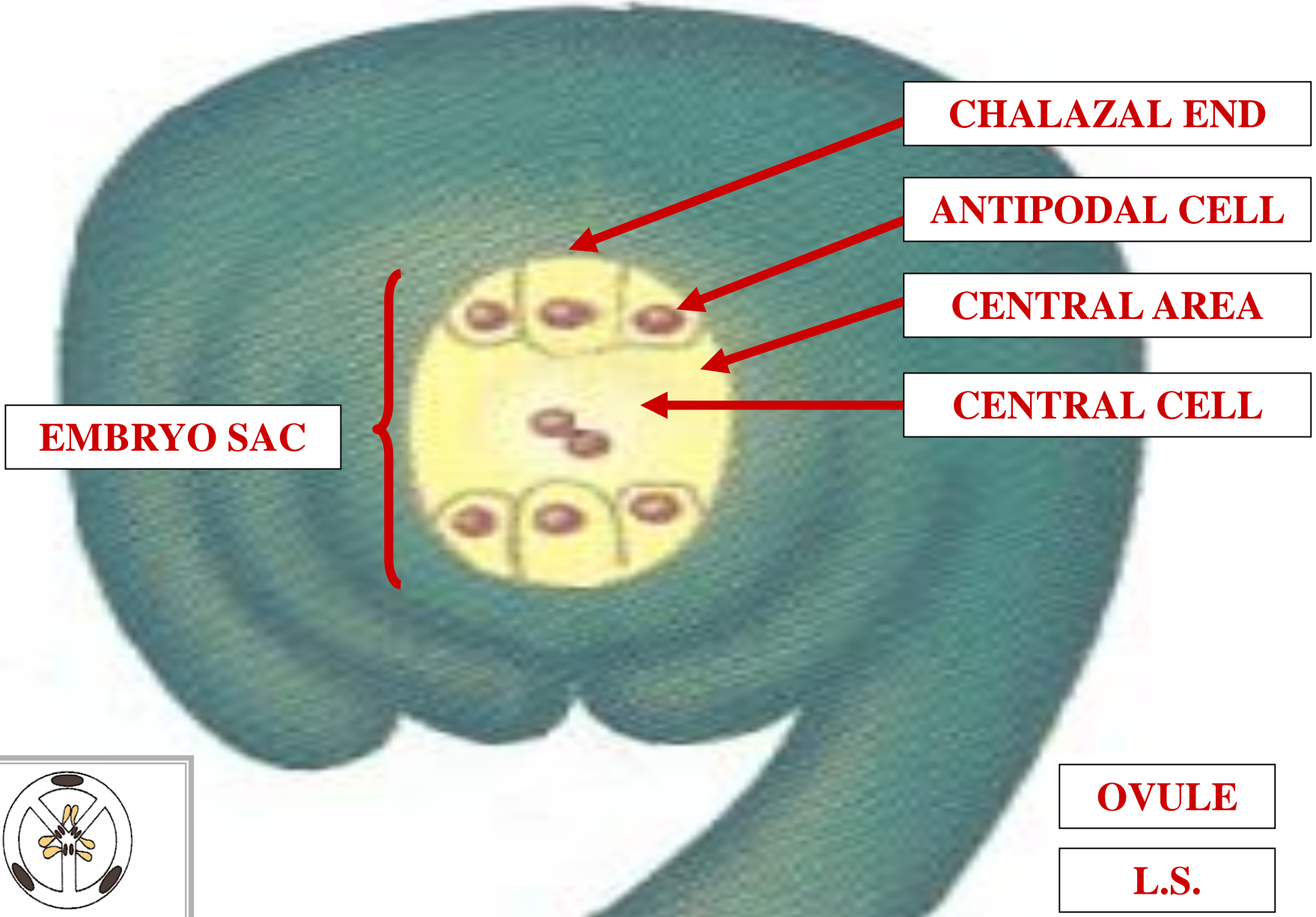
**EMBRYO SAC**

**OVULE**

**L.S.**



# ANGIOSPERM OVULE



**CHALAZAL END**

**ANTIPODAL CELL**

**CENTRAL AREA**

**CENTRAL CELL**

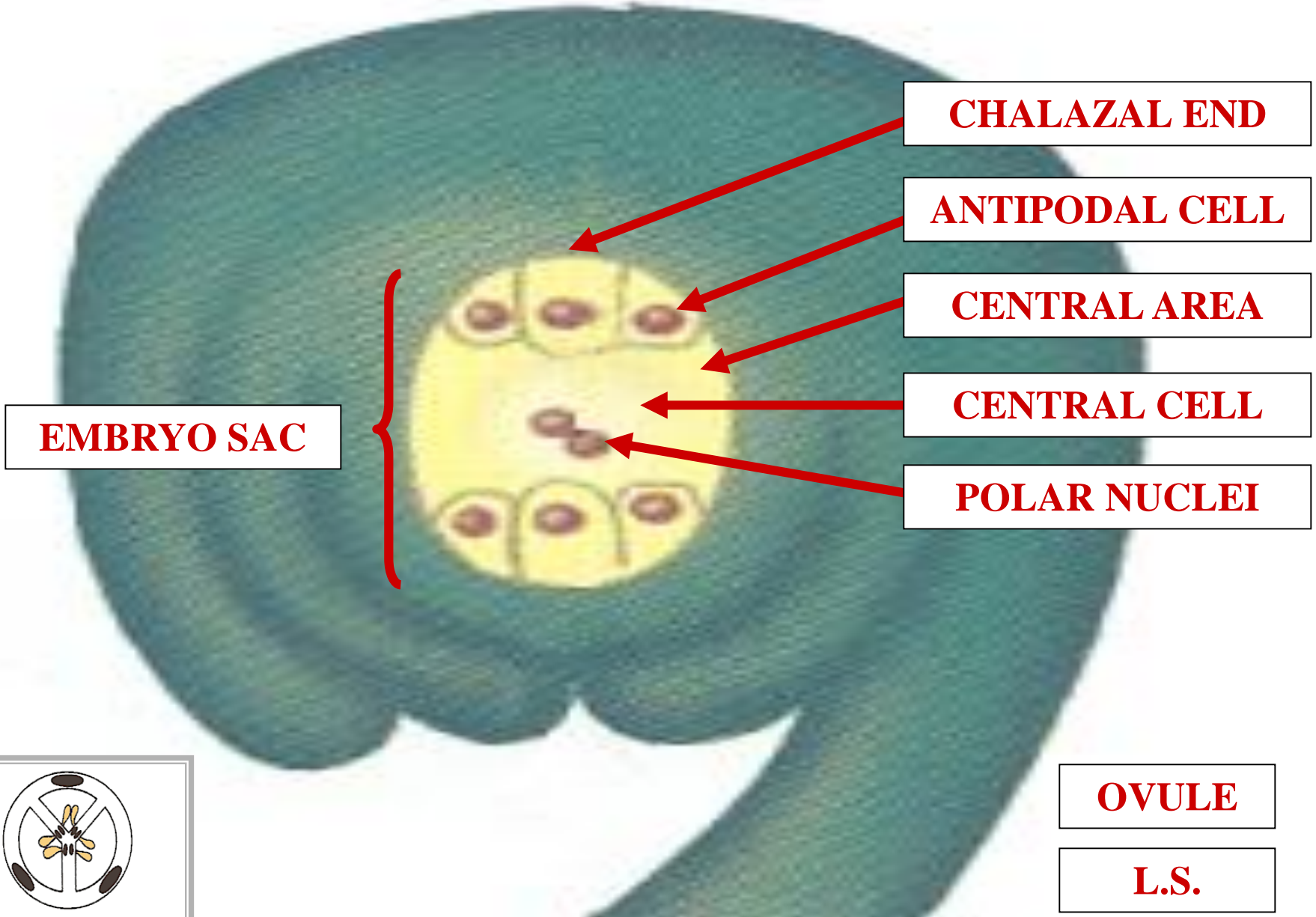
**EMBRYO SAC**

**OVULE**

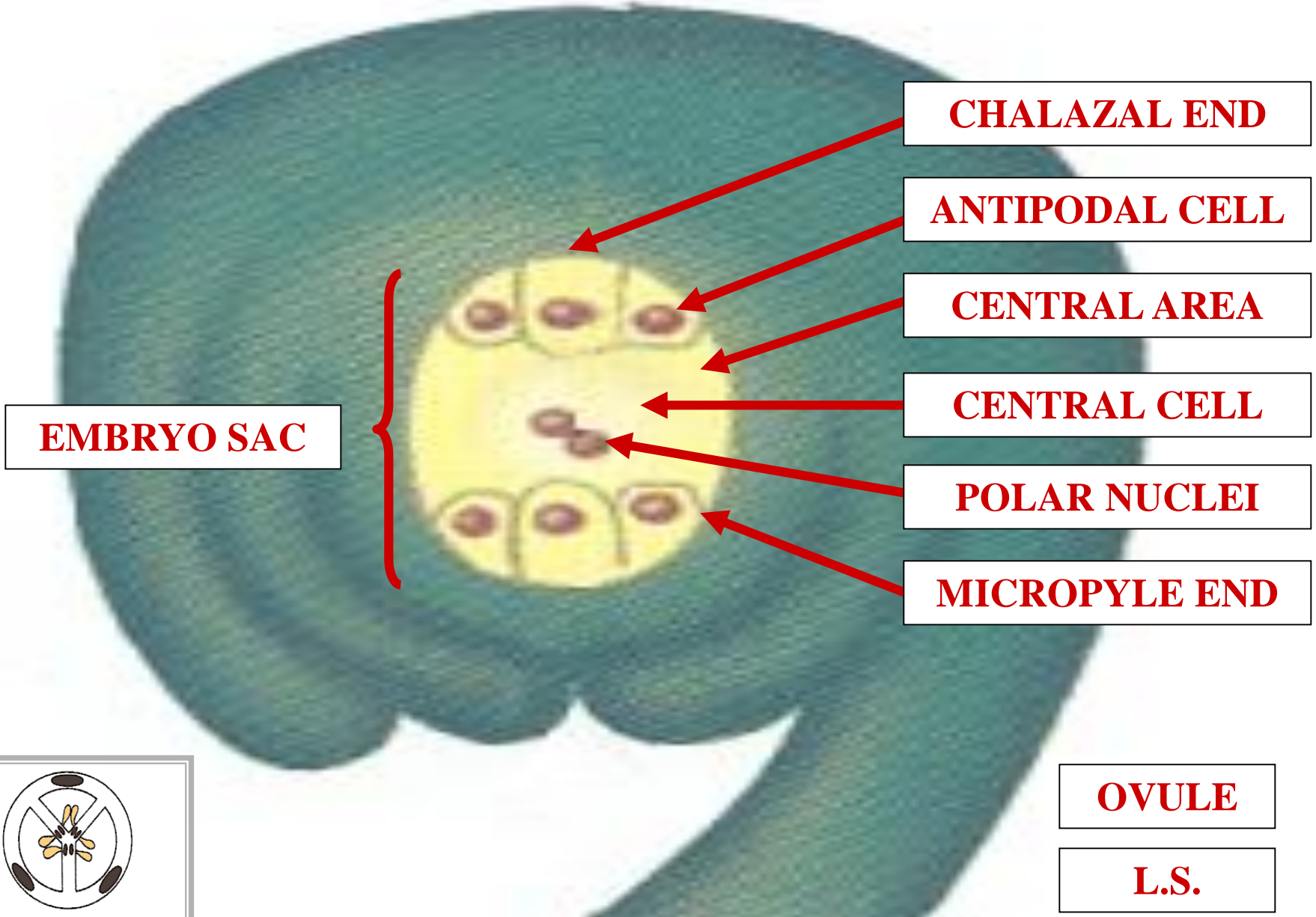
**L.S.**



# ANGIOSPERM OVULE

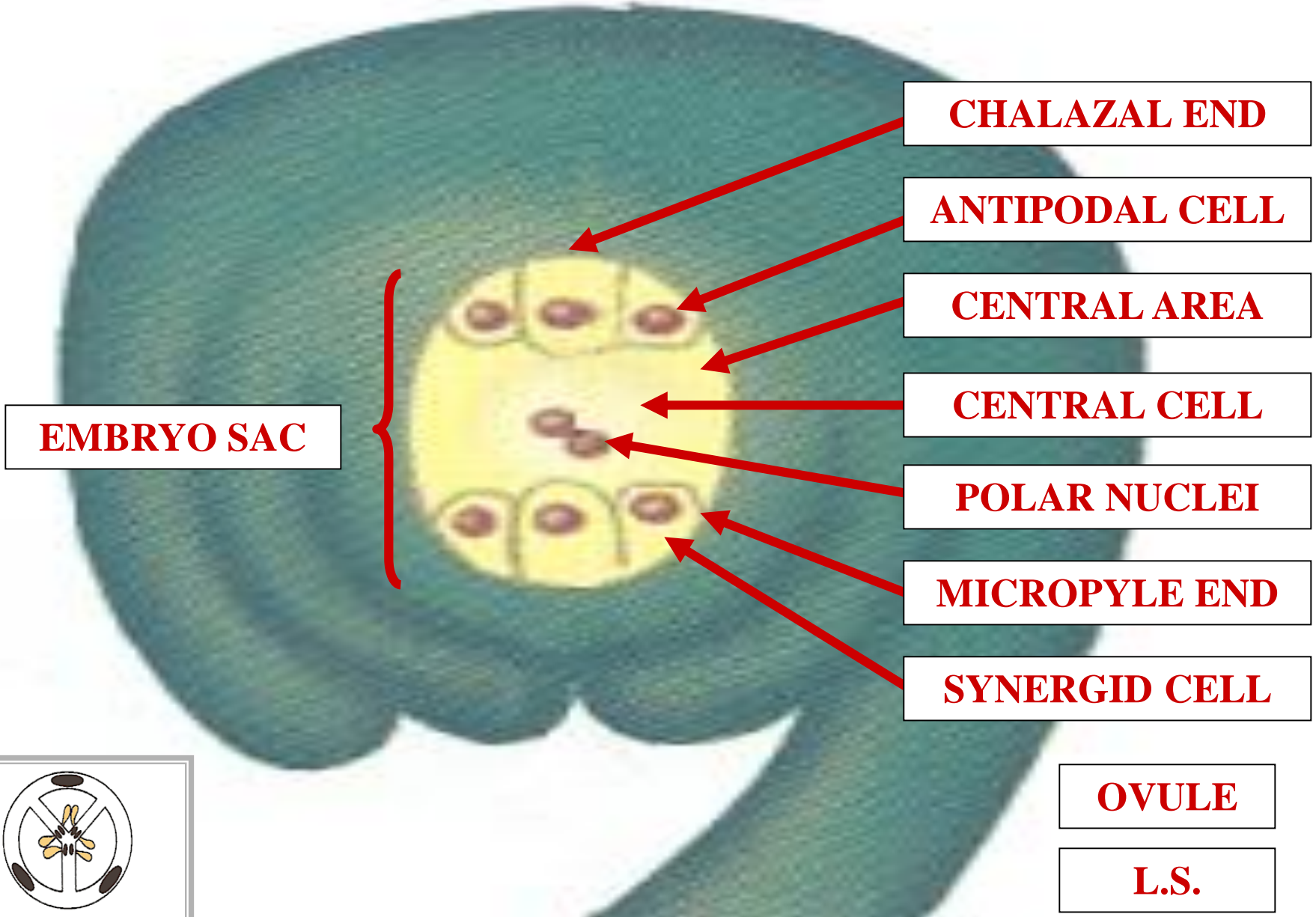


# ANGIOSPERM OVULE





# ANGIOSPERM OVULE



# MATURE EMBRYO SAC

**OVULE**

**CHALAZAL END**

**ANTIPODAL CELL**

**CENTRAL AREA**

**CENTRAL CELL**

**POLAR NUCLEI**

**MICROPYLE END**

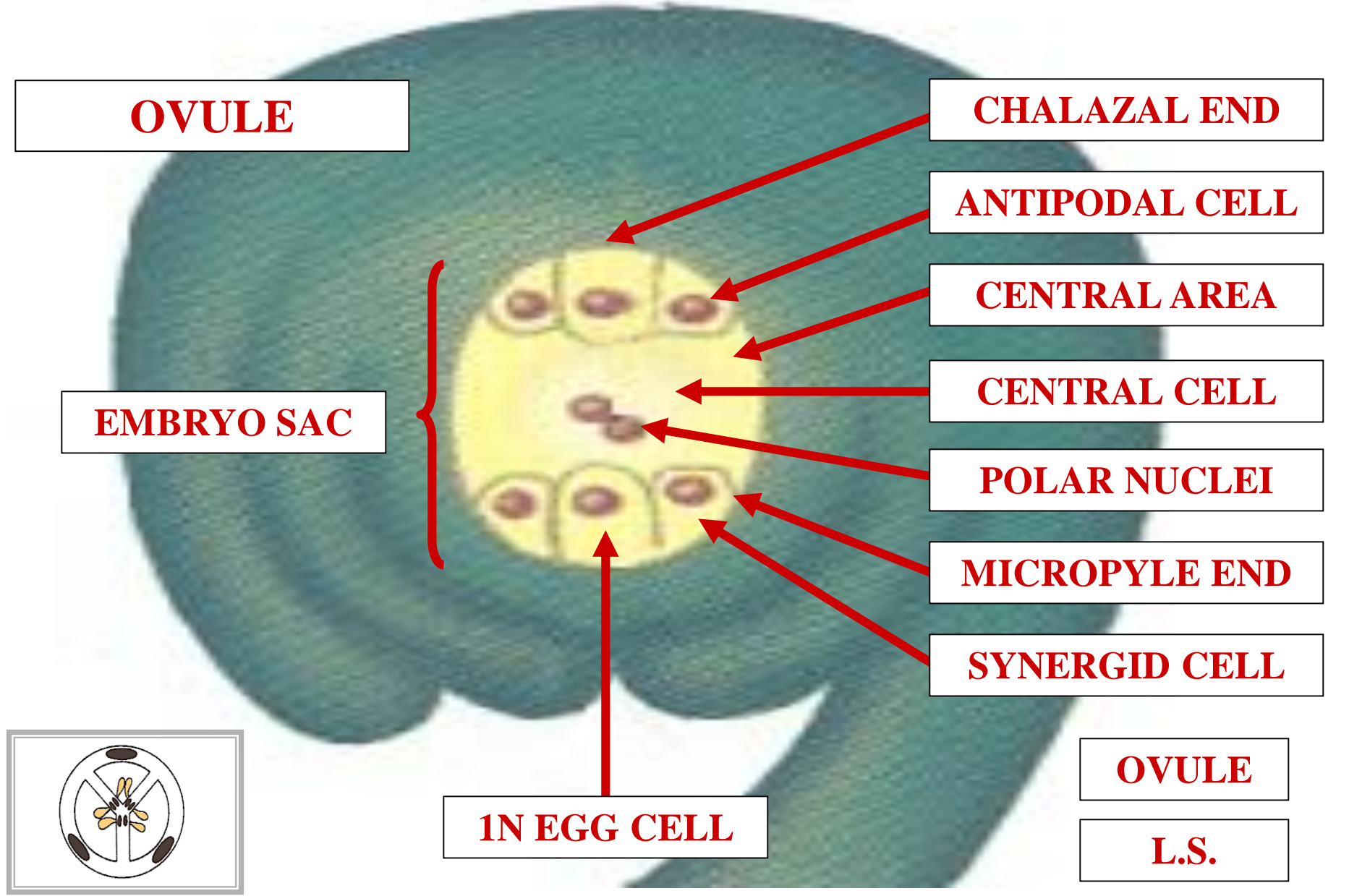
**SYNERGID CELL**

**EMBRYO SAC**

**OVULE**

**1N EGG CELL**

**L.S.**



# POLLINATION



# POLLINATION



**FLOWER 1**

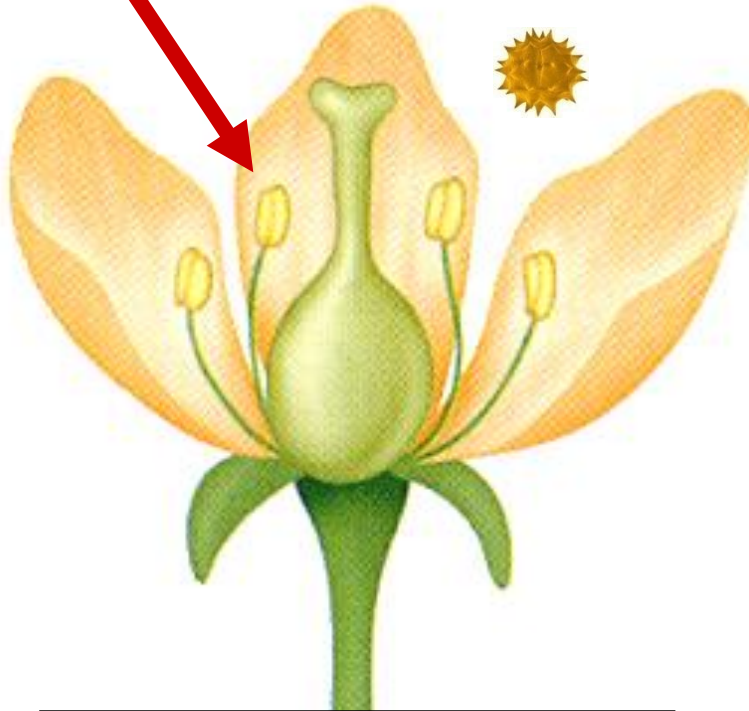


**FLOWER 2**

 = **POLLEN GRAIN**



**ANTHER**



**FLOWER 1**

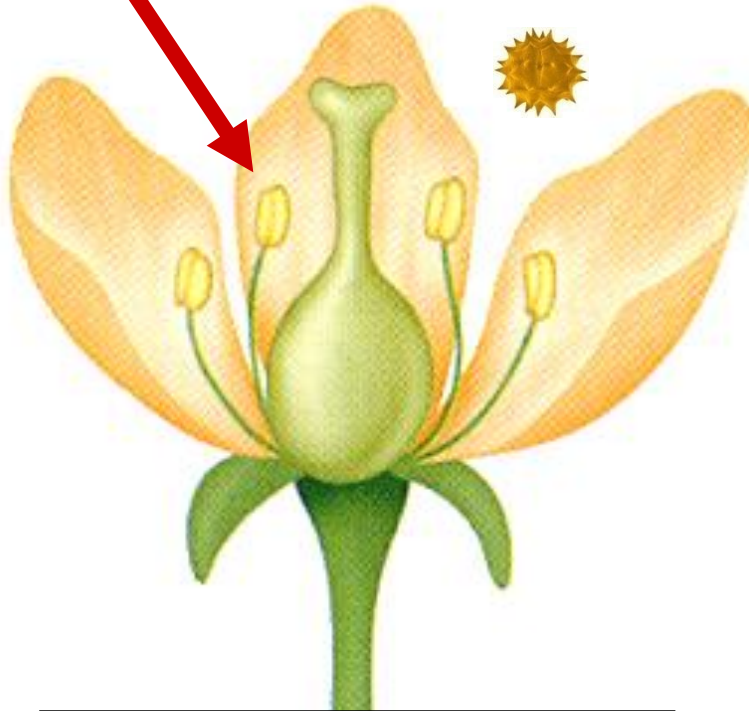


**FLOWER 2**

 = **POLLEN GRAIN**



**ANTHER**



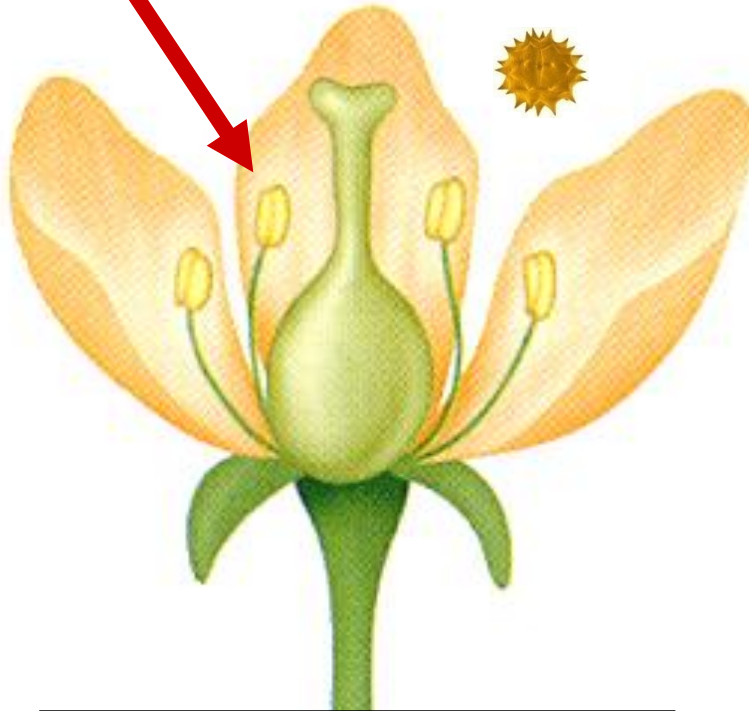
**FLOWER 1**



**FLOWER 2**

 = **POLLEN GRAIN**

**ANTHER**



**FLOWER 1**



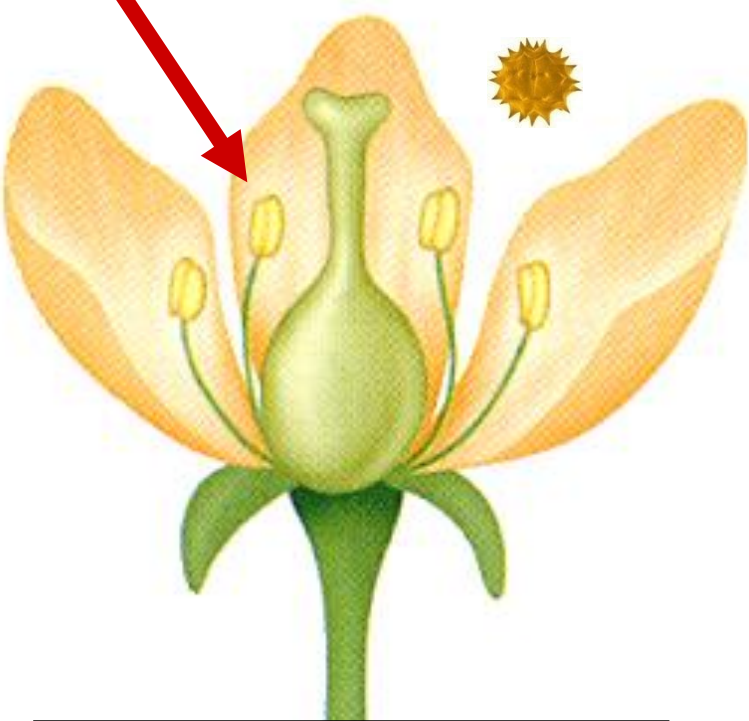
**FLOWER 2**

 = **POLLEN GRAIN**



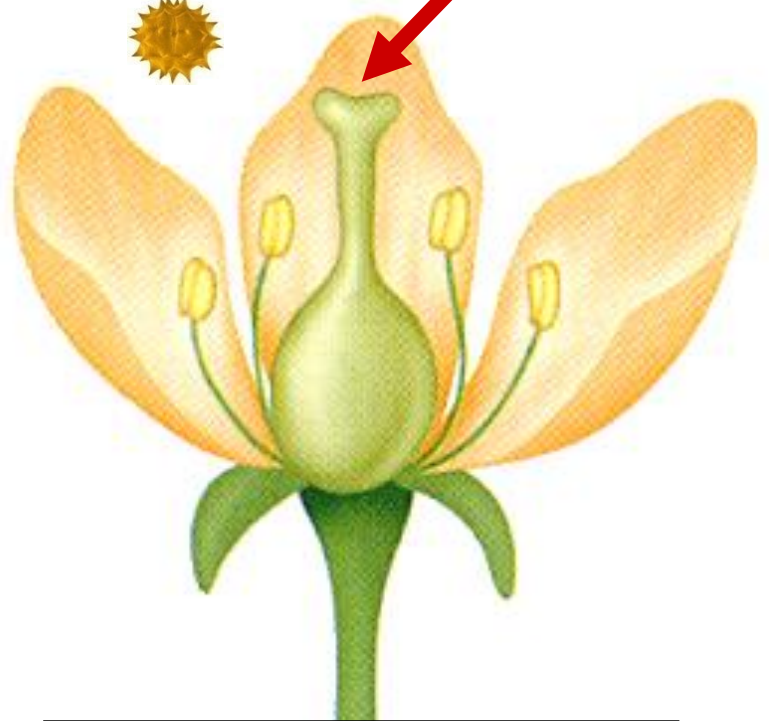


**ANTHER**



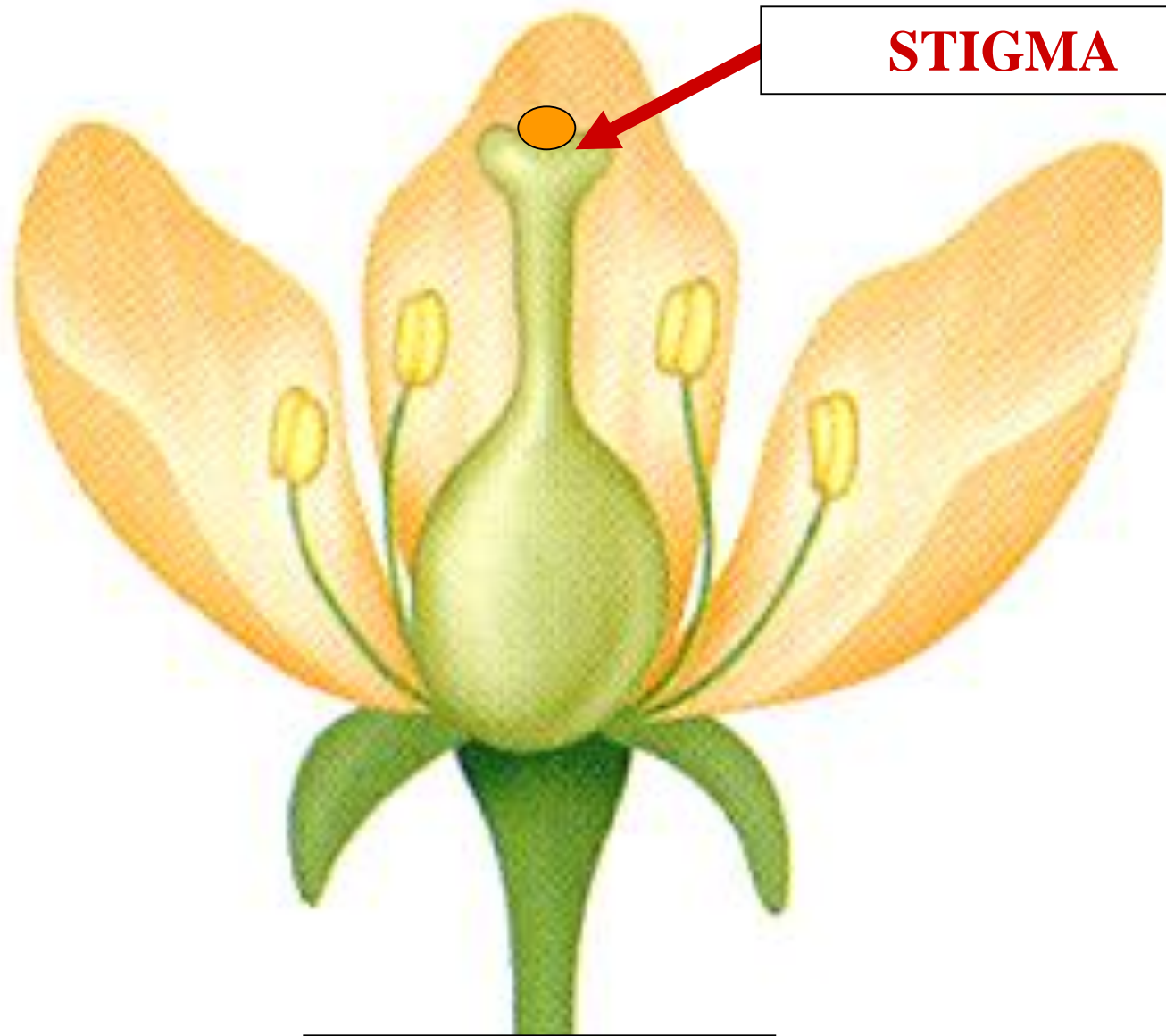
**FLOWER 1**

**STIGMA**



**FLOWER 2**

 = **POLLEN GRAIN**

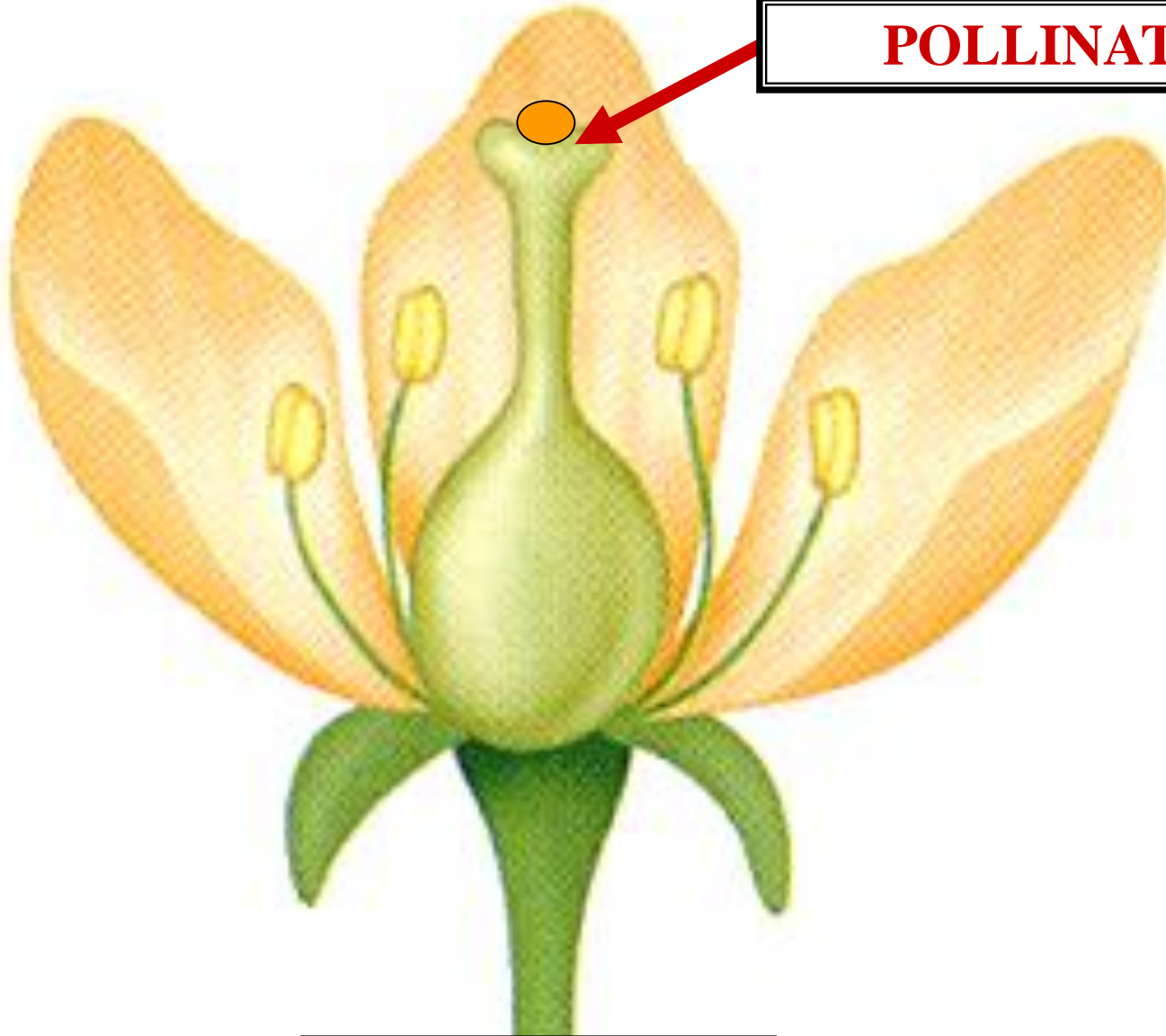


**STIGMA**

**FLOWER**

● = POLLEN GRAIN

**POLLINATION**



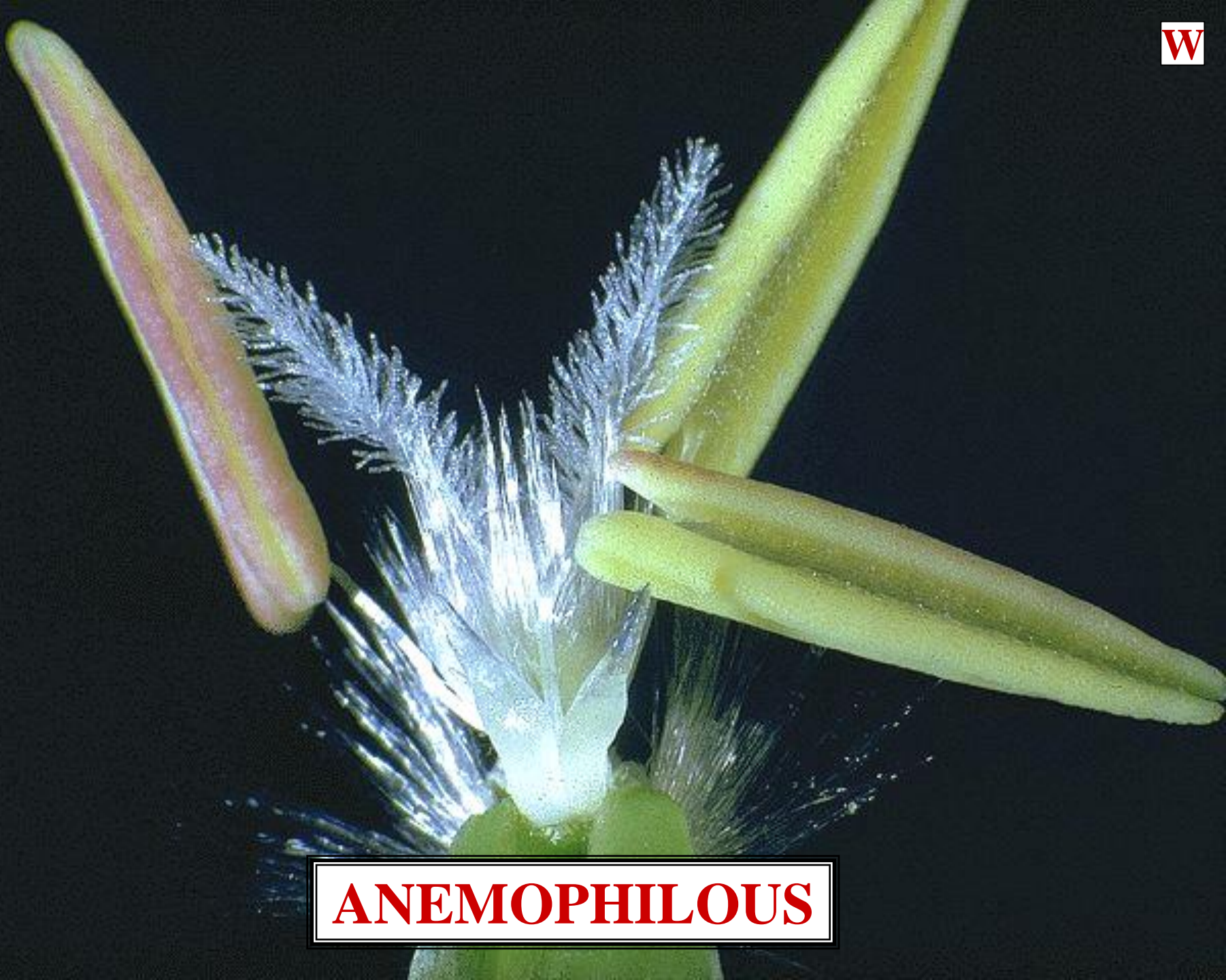
**FLOWER**

 = **POLLEN GRAIN**

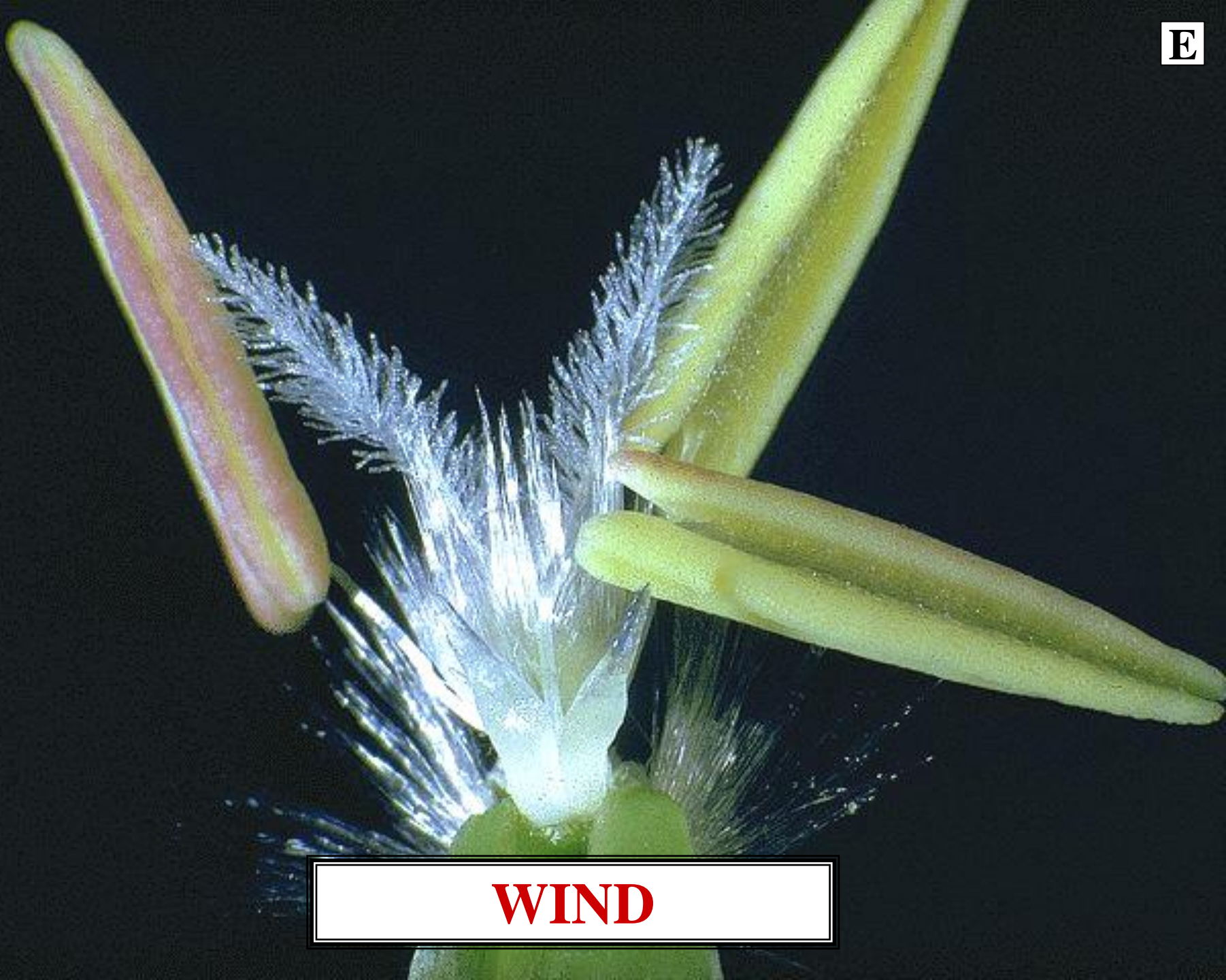
# POLLINATION VECTORS



# **ANEMOPHILOUS POLLINATION**



**ANEMOPHILOUS**

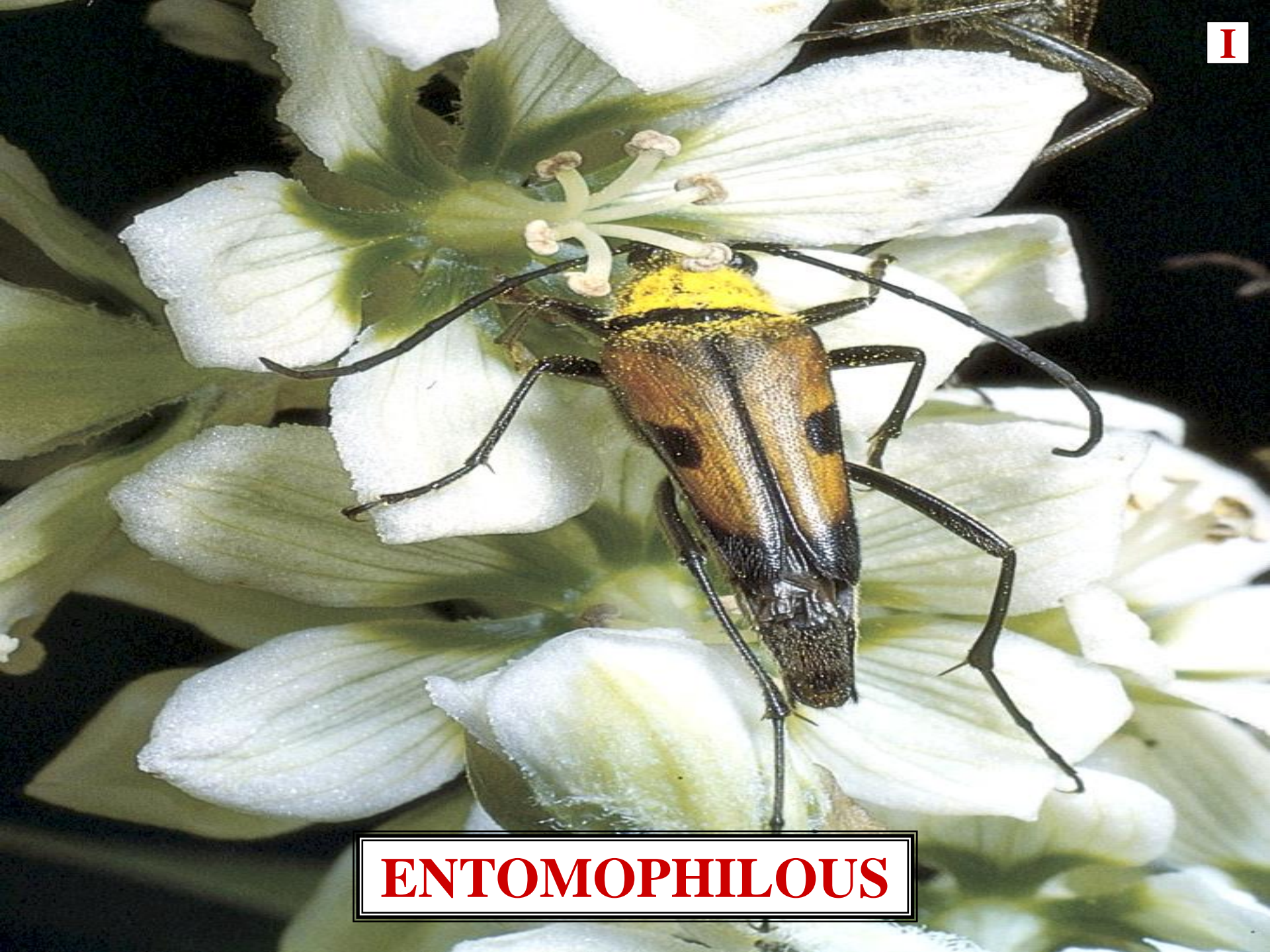


**WIND**

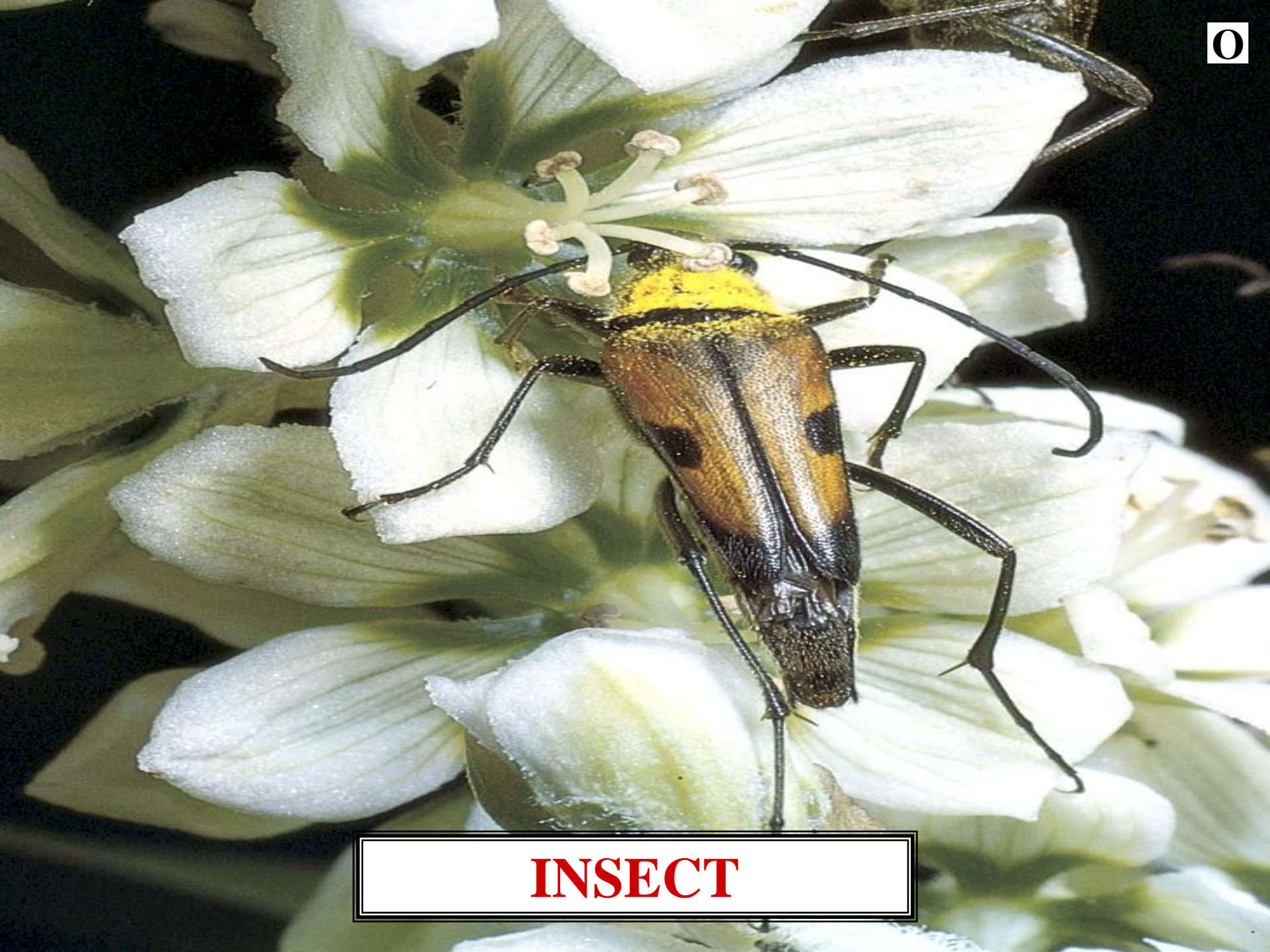


# ENTOMOPHILOUS POLLINATION





**ENTOMOPHILOUS**



**INSECT**



# ORNITHOPHILOUS POLLINATION



**ORNITHOPHILOUS**



**BIRD**



# CHEIROPTEROPHILOUS POLLINATION

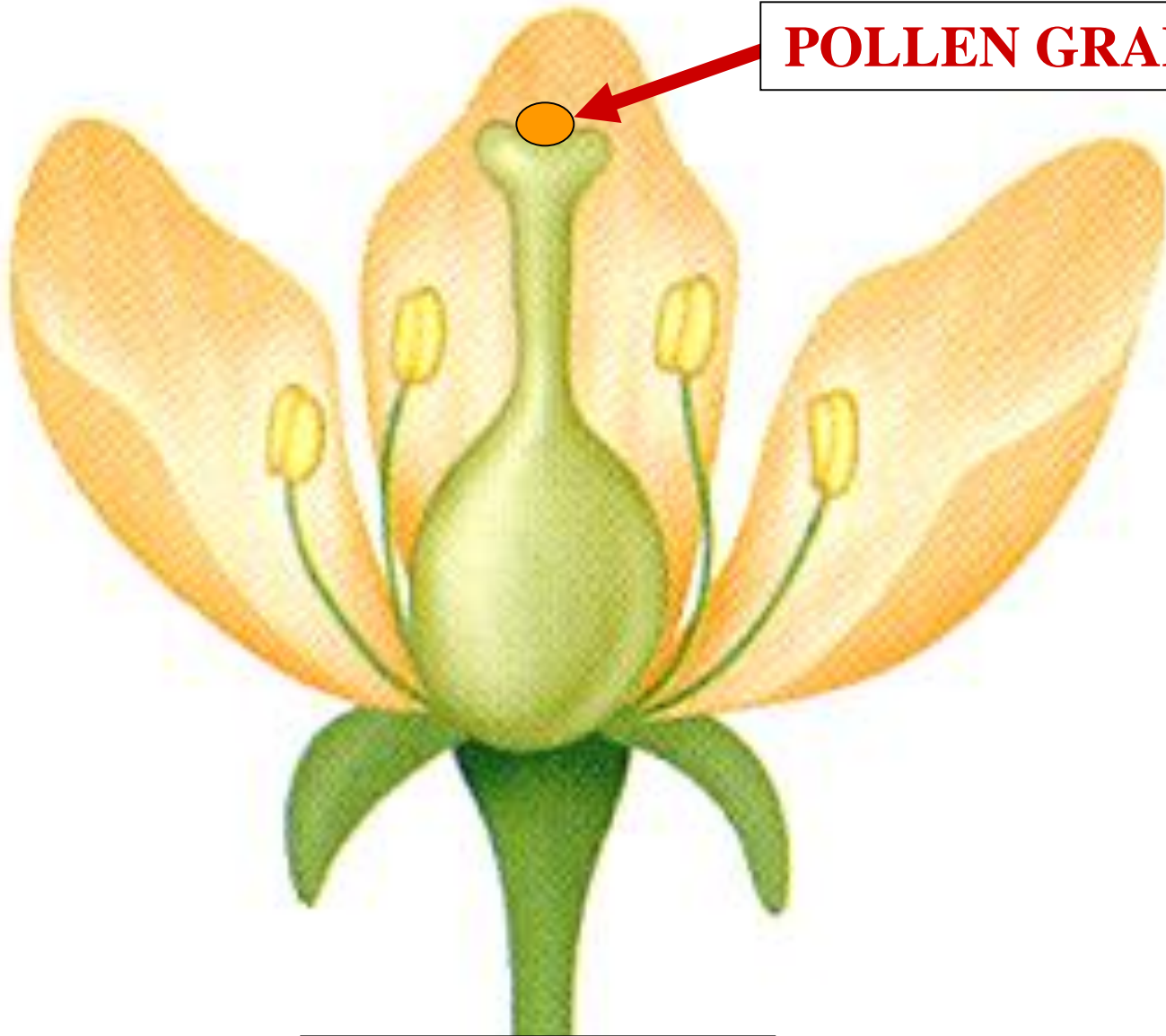


**CHEIROPTEROPHILOUS**



**BAT**

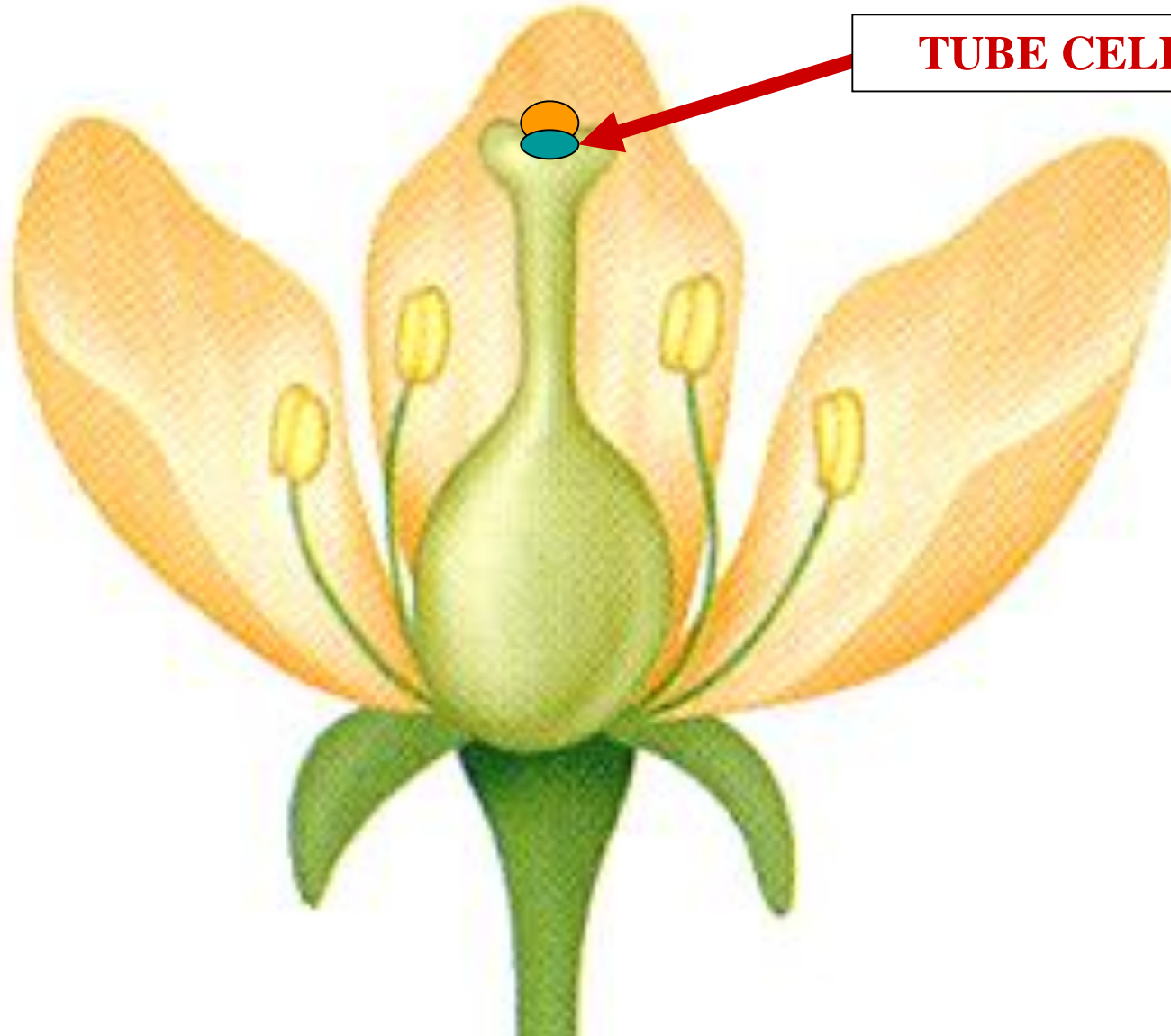




**POLLEN GRAIN**

**FLOWER**

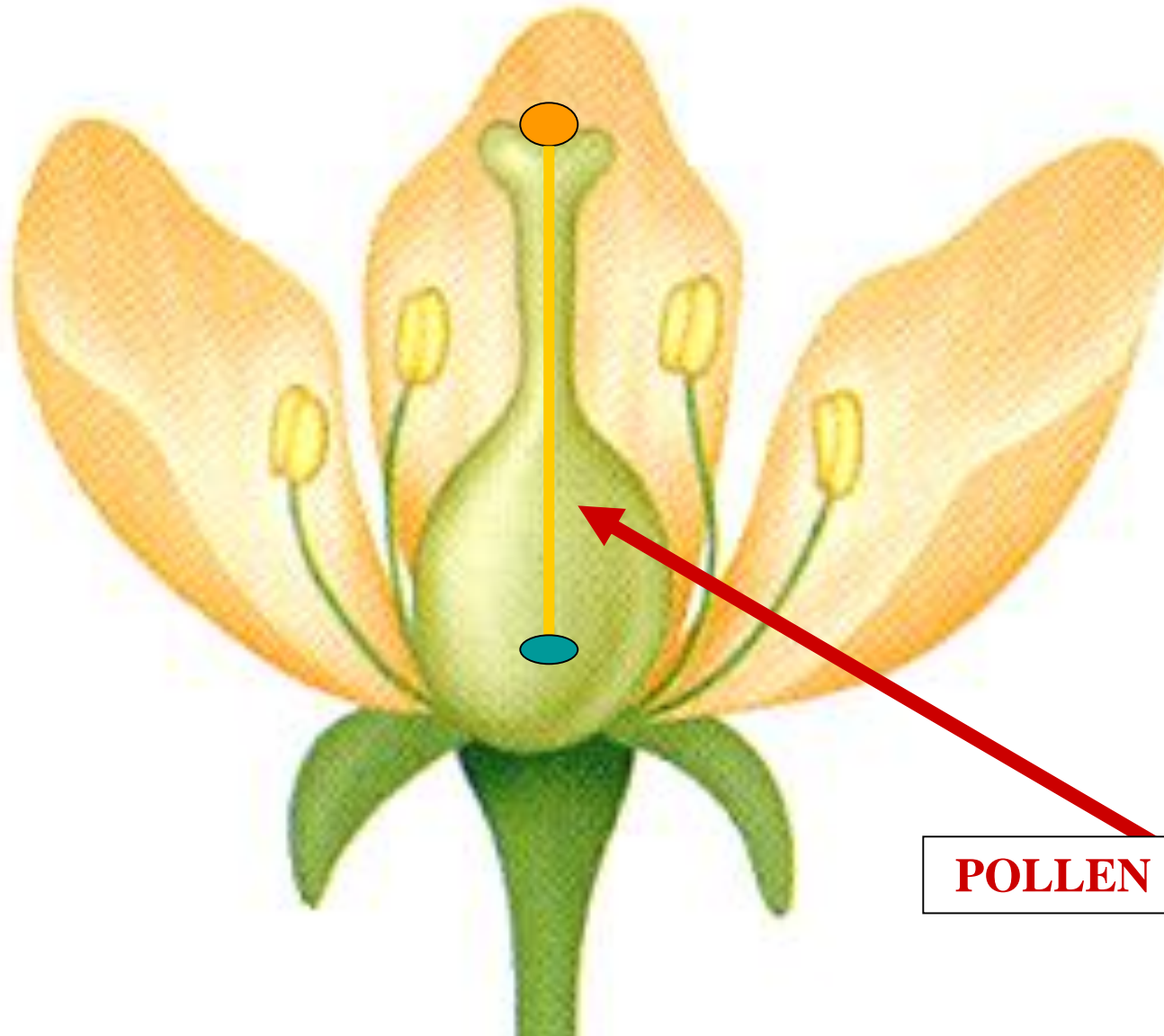
 = **POLLEN GRAIN**



**TUBE CELL**

**FLOWER**

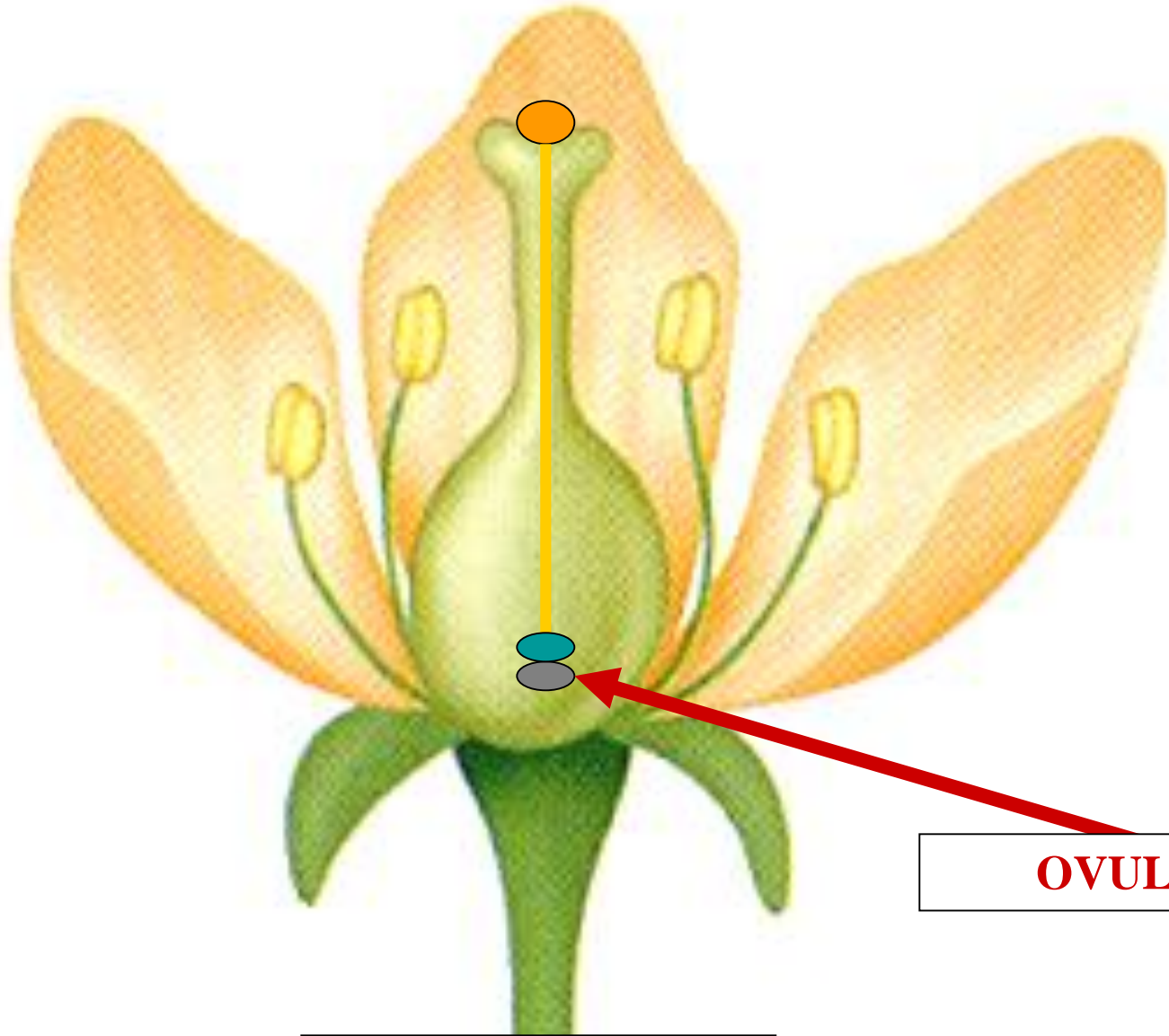
 = **POLLEN GRAIN**



**POLLEN TUBE**

**FLOWER**

**● = POLLEN GRAIN**



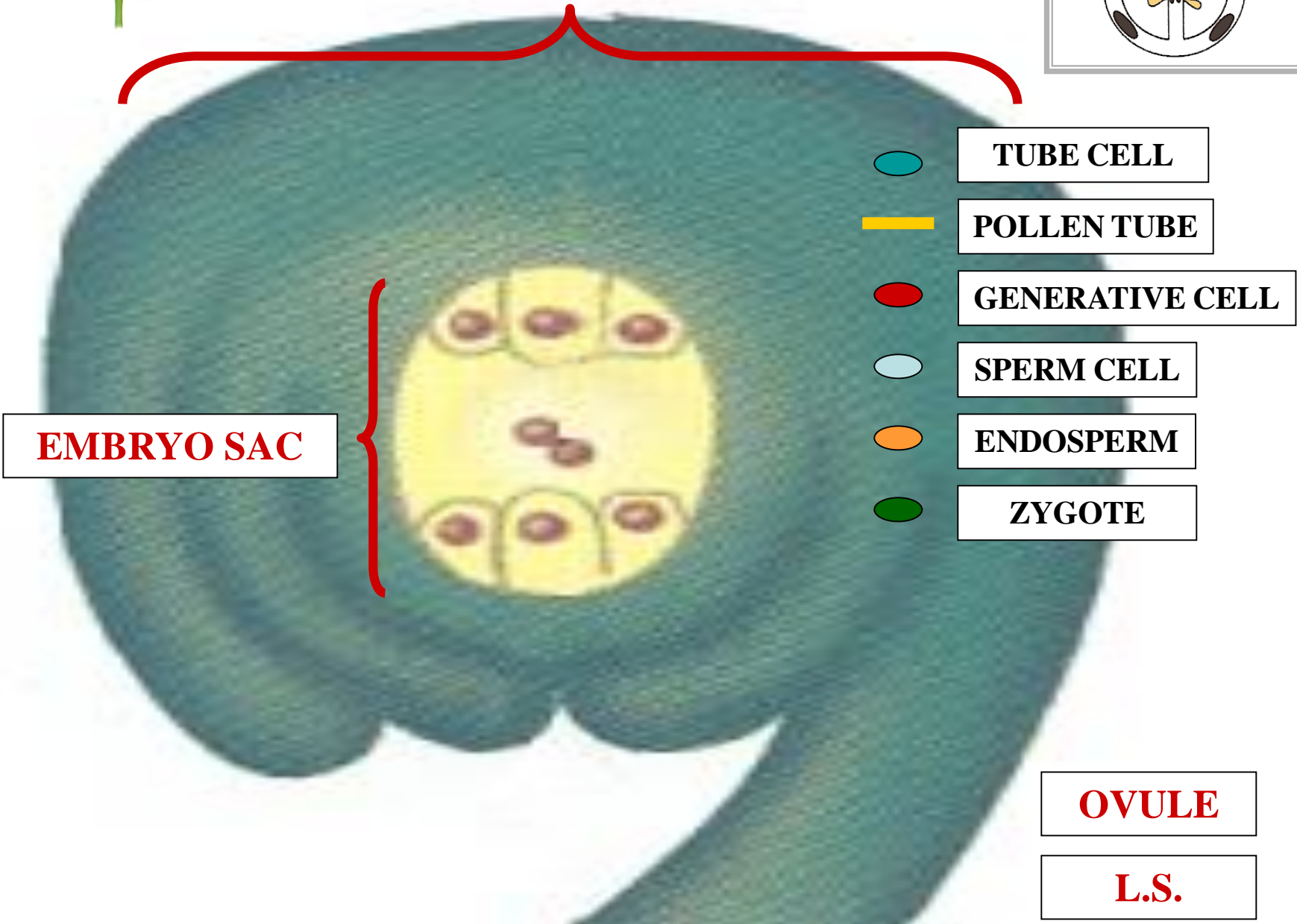
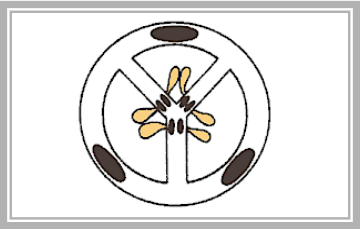
**OVULE**

**FLOWER**

 = **POLLEN GRAIN**



**OVULE**



**EMBRYO SAC**

**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

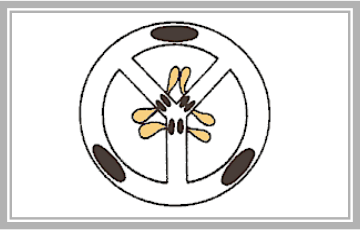
**ZYGOTE**

**OVULE**







**L.S.**



**OVULE**

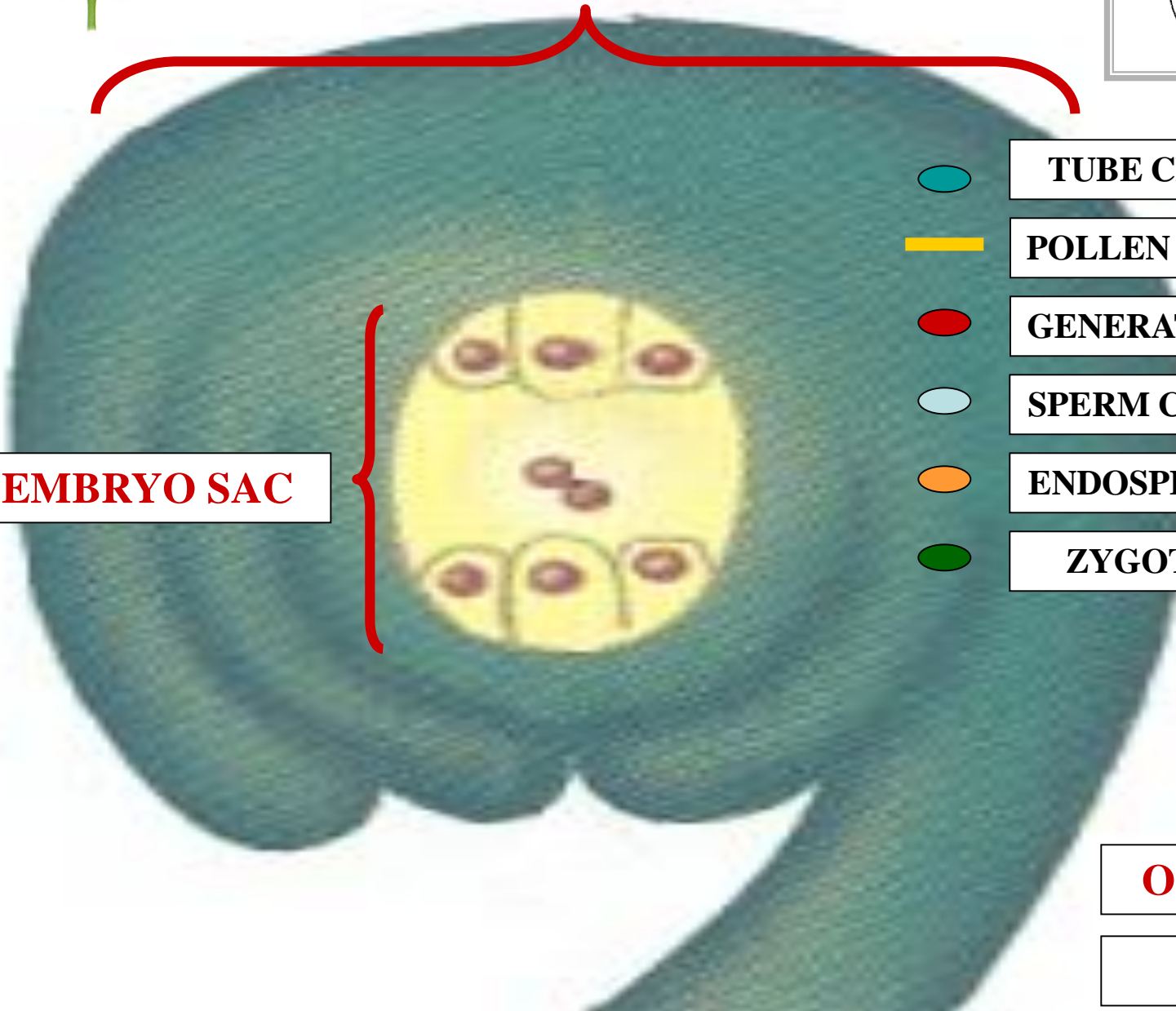


**EMBRYO SAC**

-  **TUBE CELL**
-  **POLLEN TUBE**
-  **GENERATIVE CELL**
-  **SPERM CELL**
-  **ENDOSPERM**
-  **ZYGOTE**

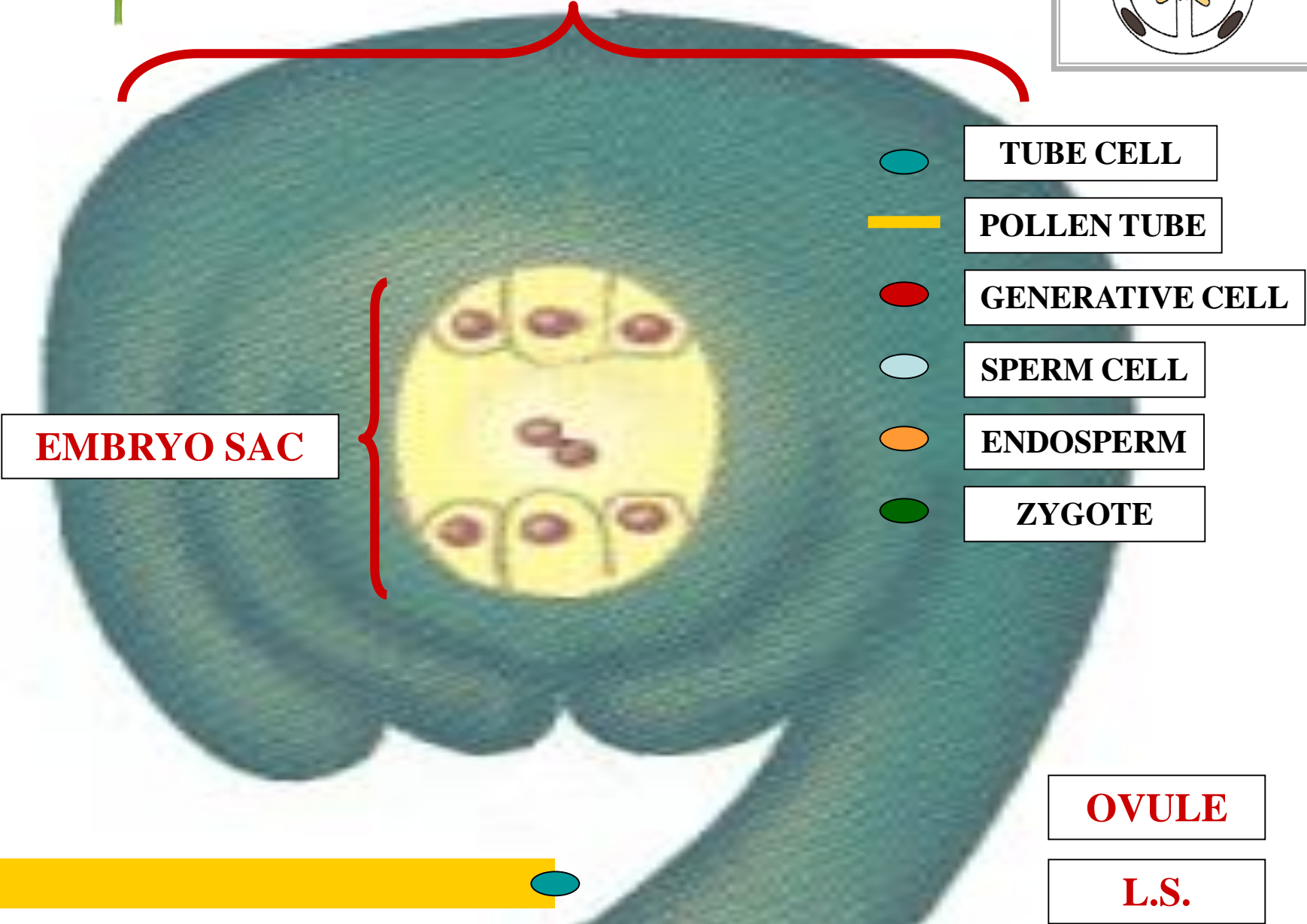
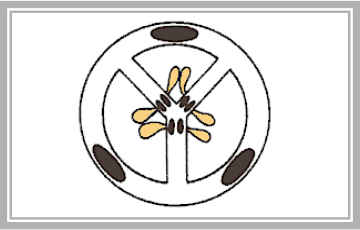
**OVULE**

**L.S.**





**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

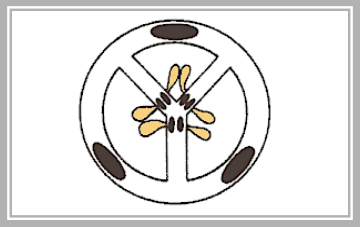
**EMBRYO SAC**

**OVULE**







**L.S.**



**OVULE**



**EMBRYO SAC**

-  **TUBE CELL**
-  **POLLEN TUBE**
-  **GENERATIVE CELL**
-  **SPERM CELL**
-  **ENDOSPERM**
-  **ZYGOTE**

**OVULE**

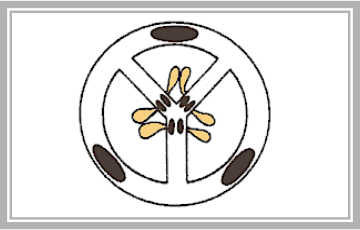
**L.S.**













**OVULE**

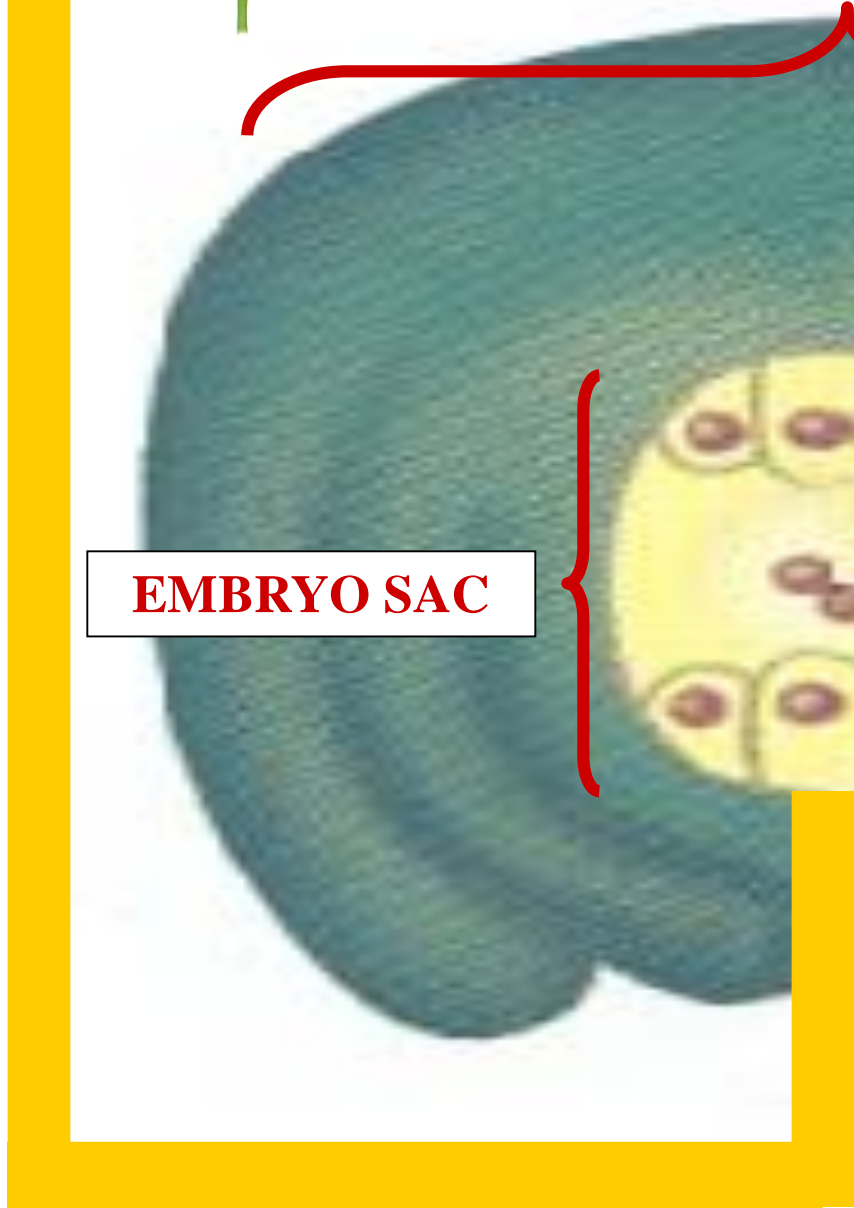


**EMBRYO SAC**

-  **TUBE CELL**
-  **POLLEN TUBE**
-  **GENERATIVE CELL**
-  **SPERM CELL**
-  **ENDOSPERM**
-  **ZYGOTE**

**OVULE**

**L.S.**











**OVULE**



**EMBRYO SAC**

-  **TUBE CELL**
-  **POLLEN TUBE**
-  **GENERATIVE CELL**
-  **SPERM CELL**
-  **ENDOSPERM**
-  **ZYGOTE**

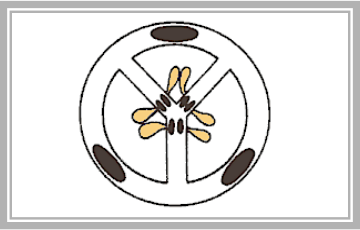
**OVULE**

**L.S.**











**OVULE**



**EMBRYO SAC**

-  **TUBE CELL**
-  **POLLEN TUBE**
-  **GENERATIVE CELL**
-  **SPERM CELL**
-  **ENDOSPERM**
-  **ZYGOTE**

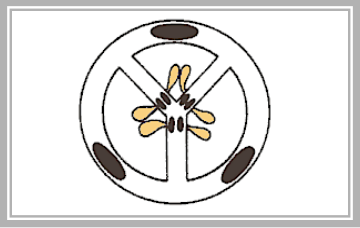
**OVULE**

**L.S.**











**OVULE**



**EMBRYO SAC**

-  **TUBE CELL**
-  **POLLEN TUBE**
-  **GENERATIVE CELL**
-  **SPERM CELL**
-  **ENDOSPERM**
-  **ZYGOTE**

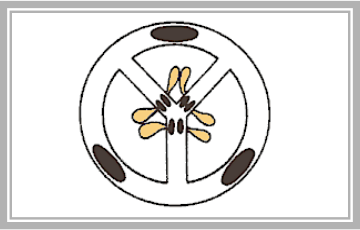
**OVULE**

**L.S.**











**OVULE**



**EMBRYO SAC**

-  **TUBE CELL**
-  **POLLEN TUBE**
-  **GENERATIVE CELL**
-  **SPERM CELL**
-  **ENDOSPERM**
-  **ZYGOTE**

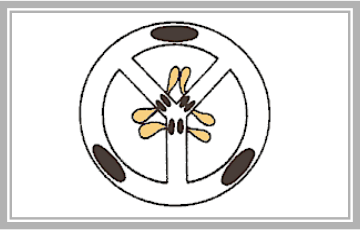
**OVULE**

**L.S.**











**OVULE**



**M**

**EMBRYO SAC**

-  **TUBE CELL**
-  **POLLEN TUBE**
-  **GENERATIVE CELL**
-  **SPERM CELL**
-  **ENDOSPERM**
-  **ZYGOTE**

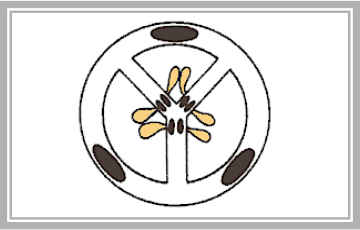
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**L.S.**











**OVULE**



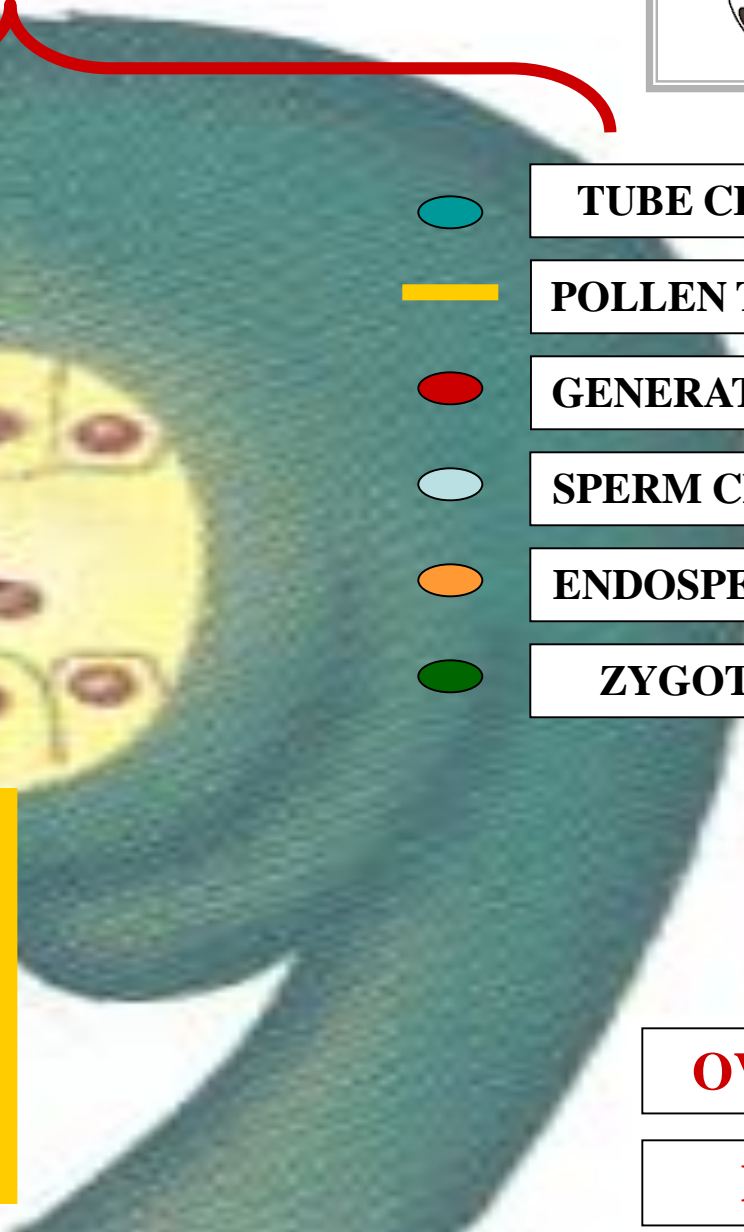
**EMBRYO SAC**

-  **TUBE CELL**
-  **POLLEN TUBE**
-  **GENERATIVE CELL**
-  **SPERM CELL**
-  **ENDOSPERM**
-  **ZYGOTE**

**MITOSIS**

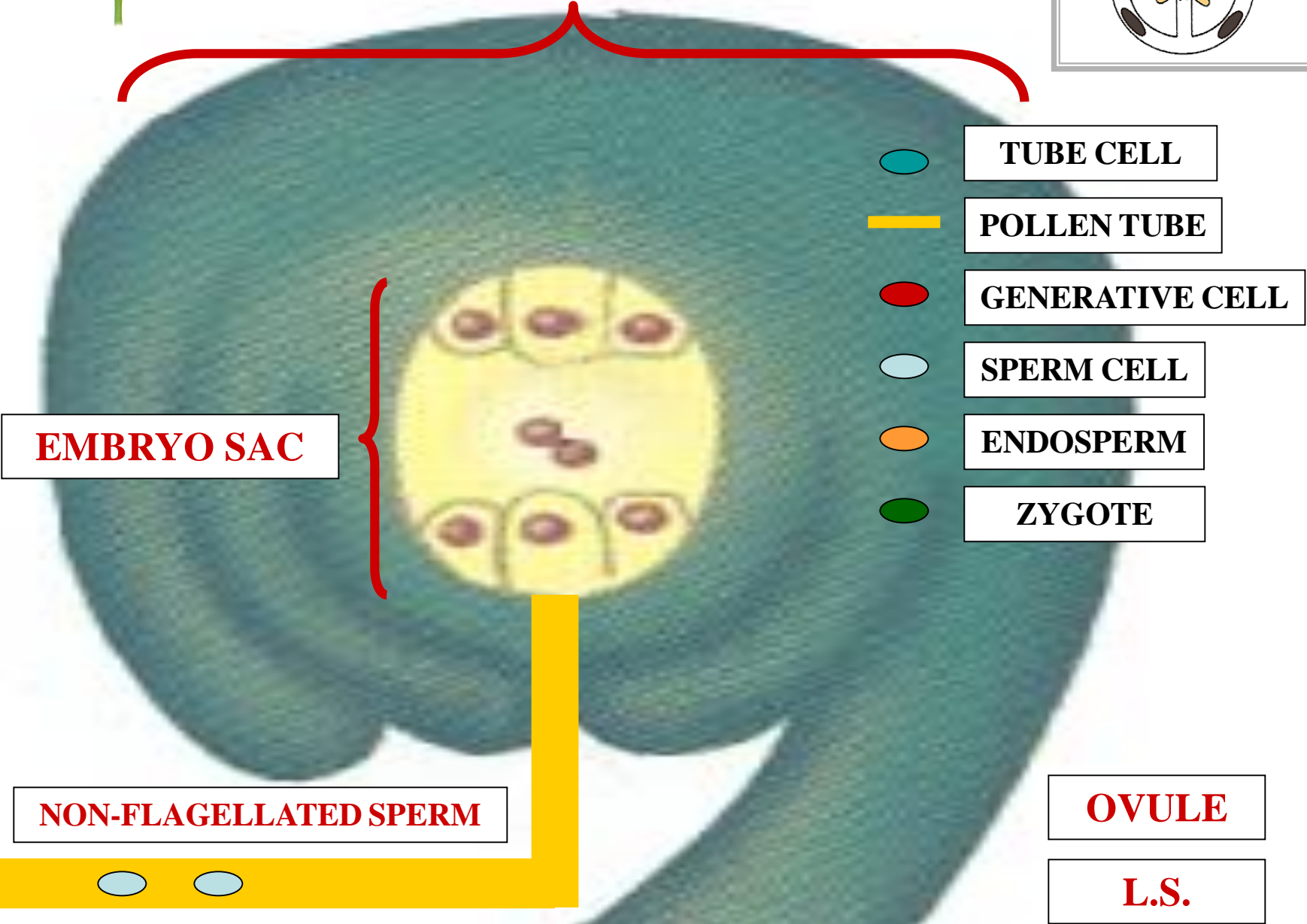
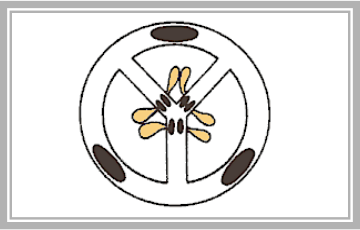
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**L.S.**





**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**NON-FLAGELLATED SPERM**

**OVULE**

**L.S.**











**OVULE**



**EMBRYO SAC**

**DOUBLE FERTILIZATION**

-  **TUBE CELL**
-  **POLLEN TUBE**
-  **GENERATIVE CELL**
-  **SPERM CELL**
-  **ENDOSPERM**
-  **ZYGOTE**

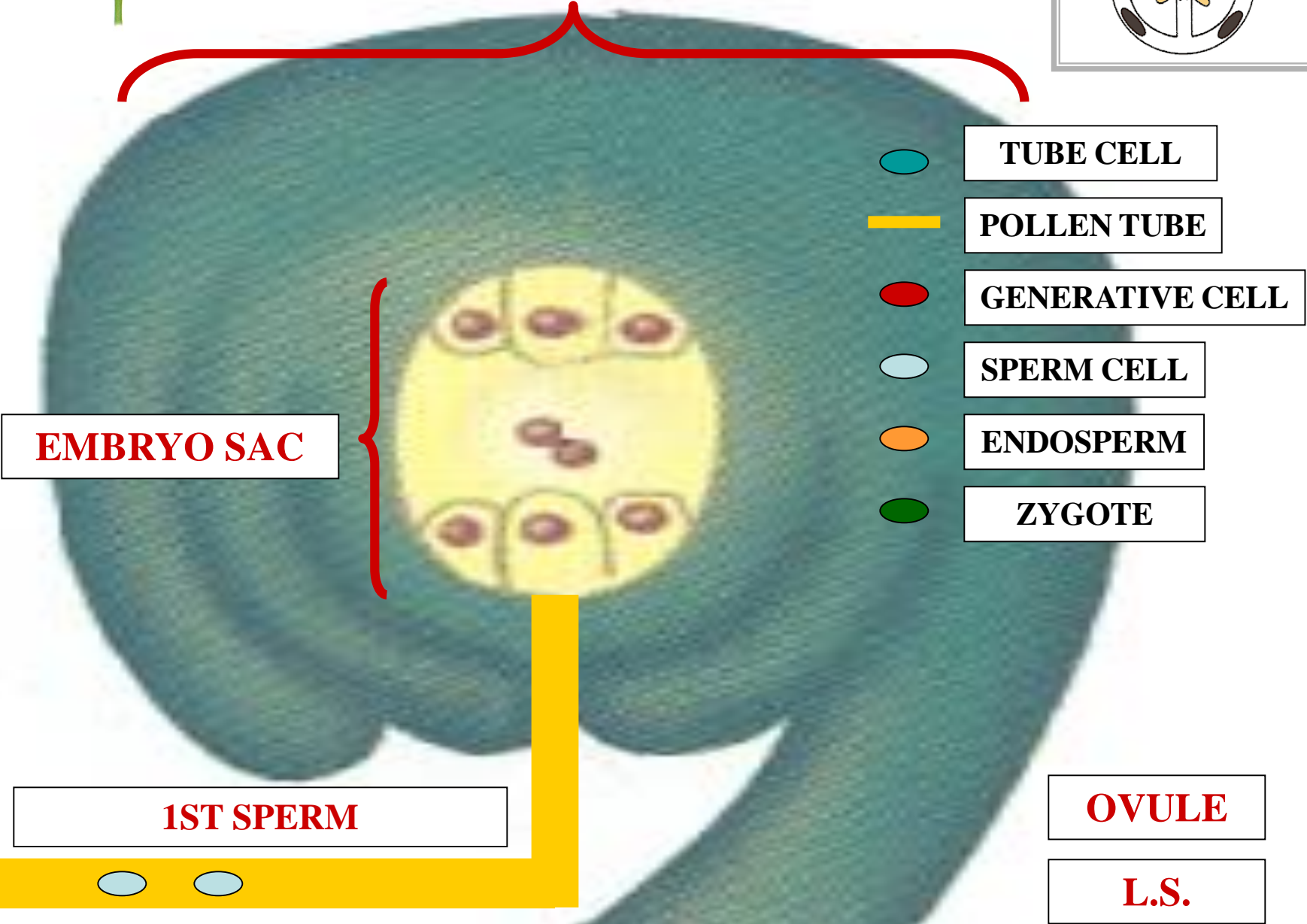
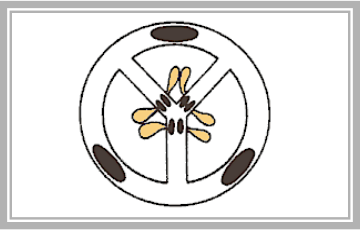
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**L.S.**





**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

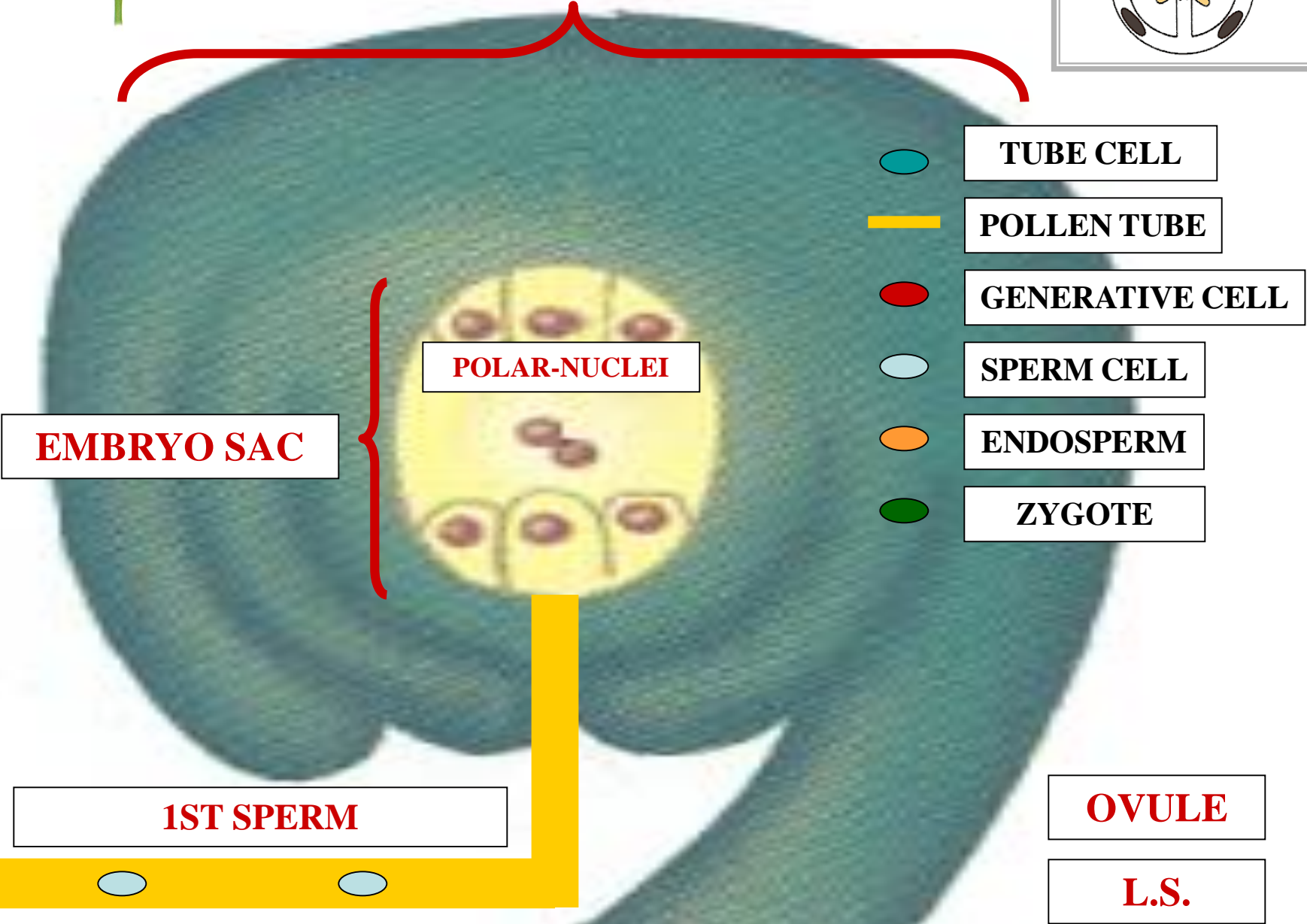
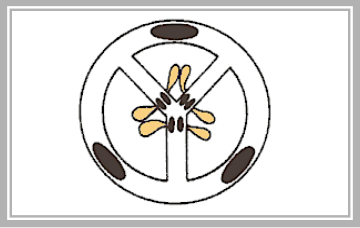
**1ST SPERM**

**OVULE**

**L.S.**



**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**POLAR-NUCLEI**

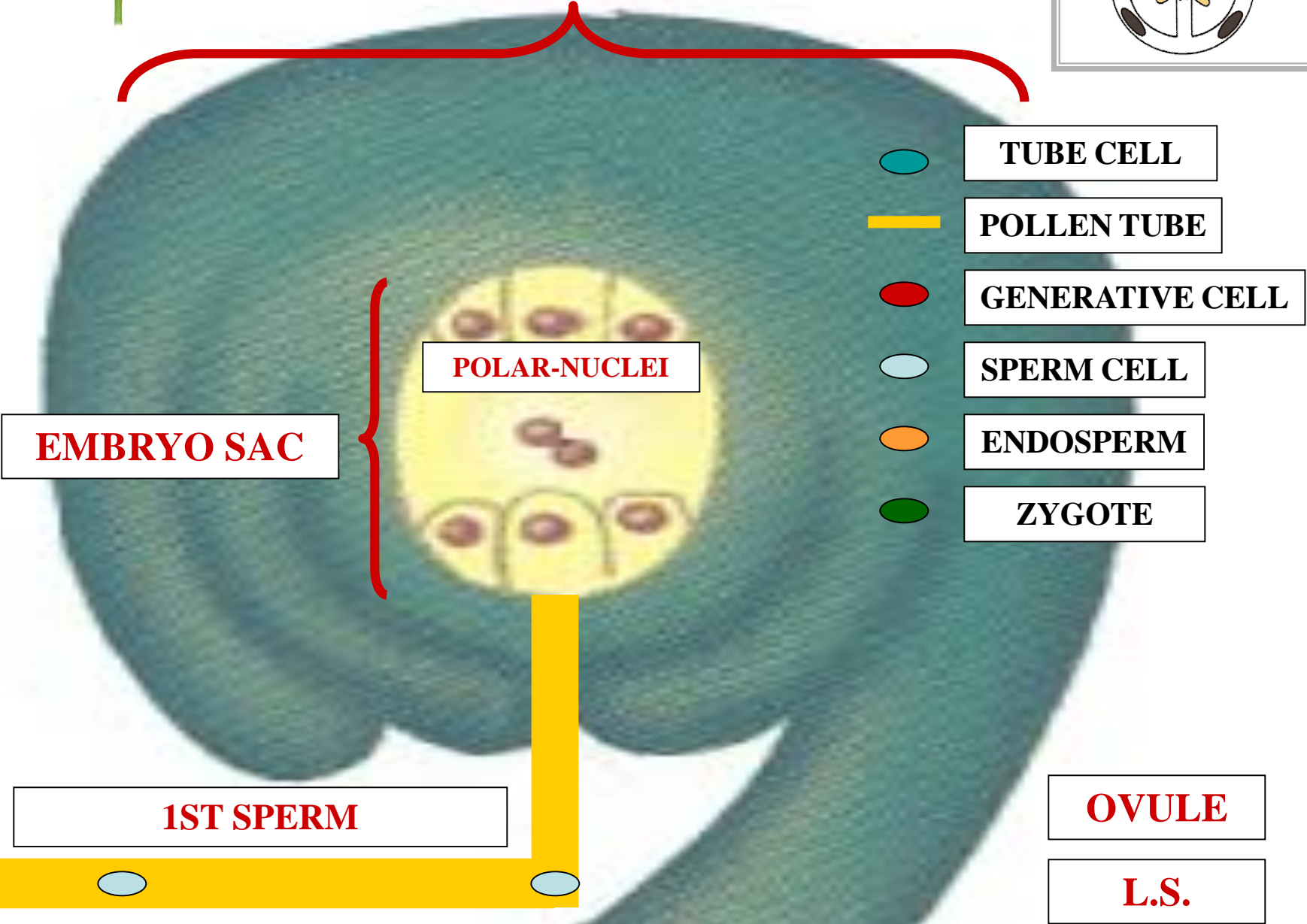
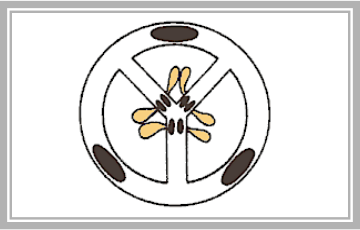
**1ST SPERM**

**OVULE**

**L.S.**



**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**POLAR-NUCLEI**

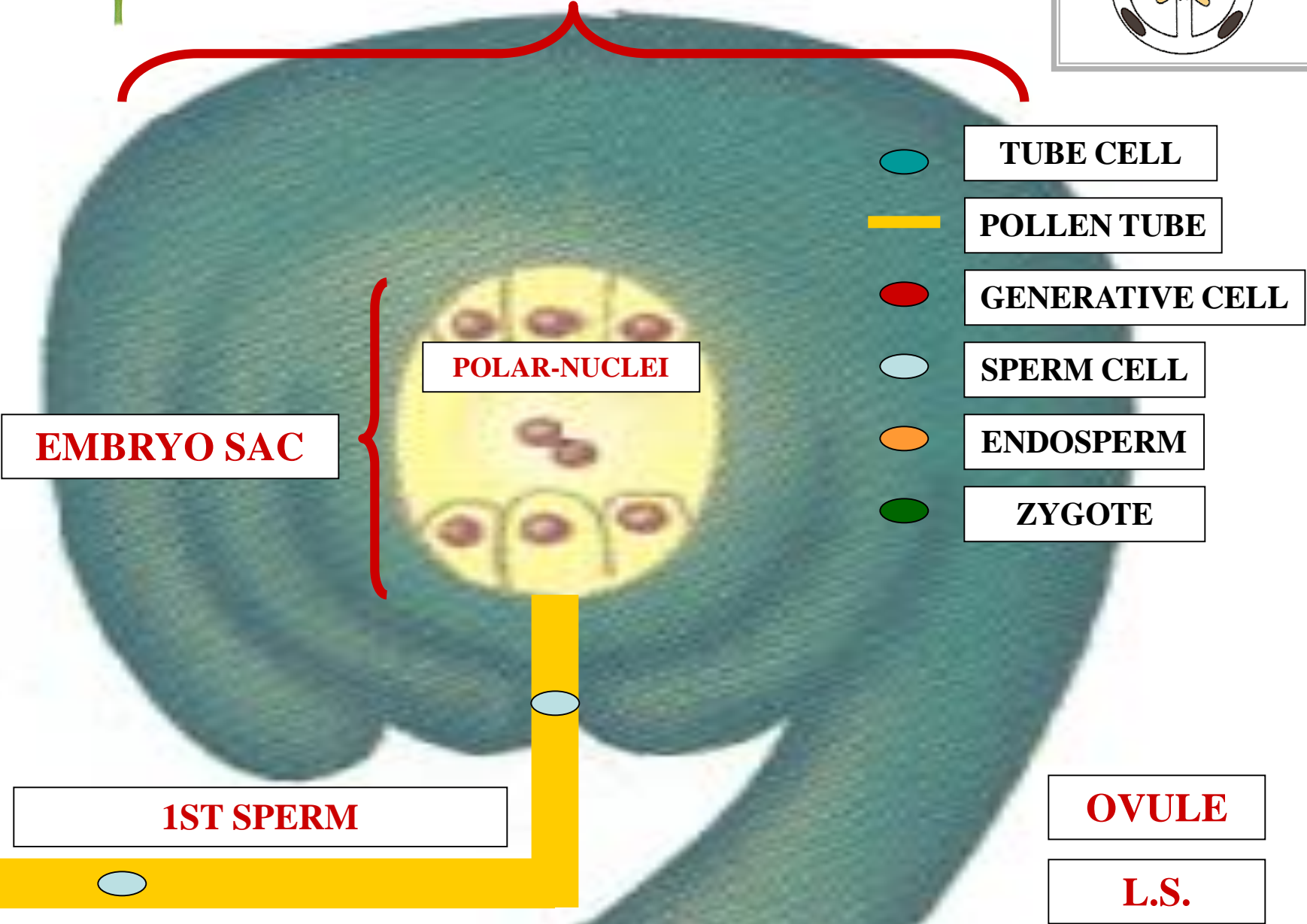
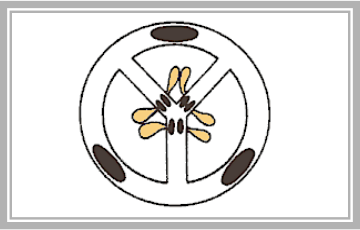
**1ST SPERM**

**OVULE**

**L.S.**



**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**POLAR-NUCLEI**

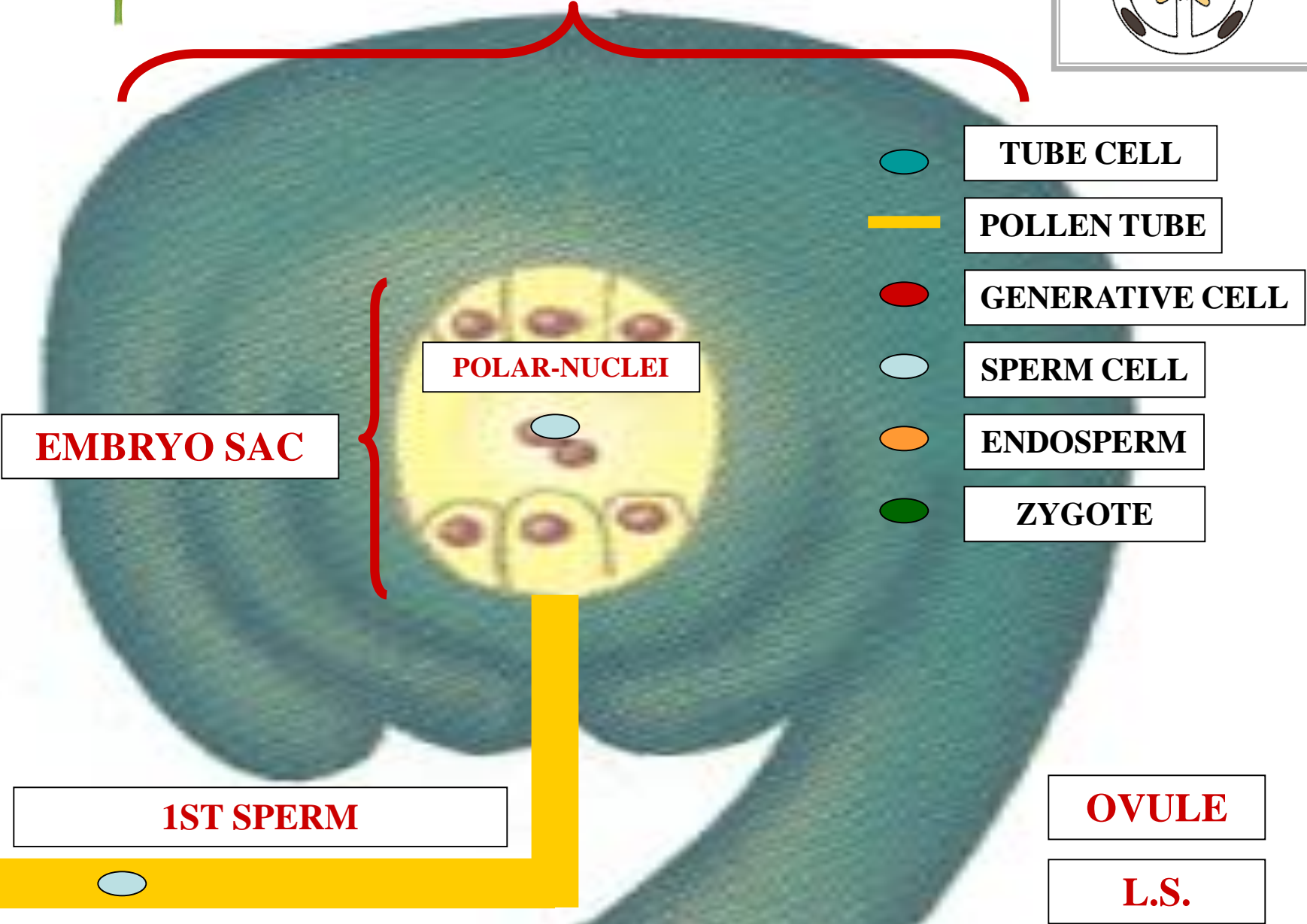
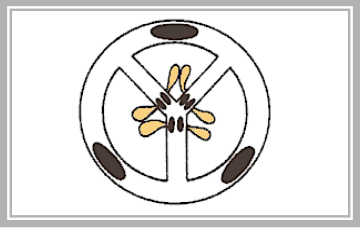
**1ST SPERM**

**OVULE**

**L.S.**



**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**POLAR-NUCLEI**

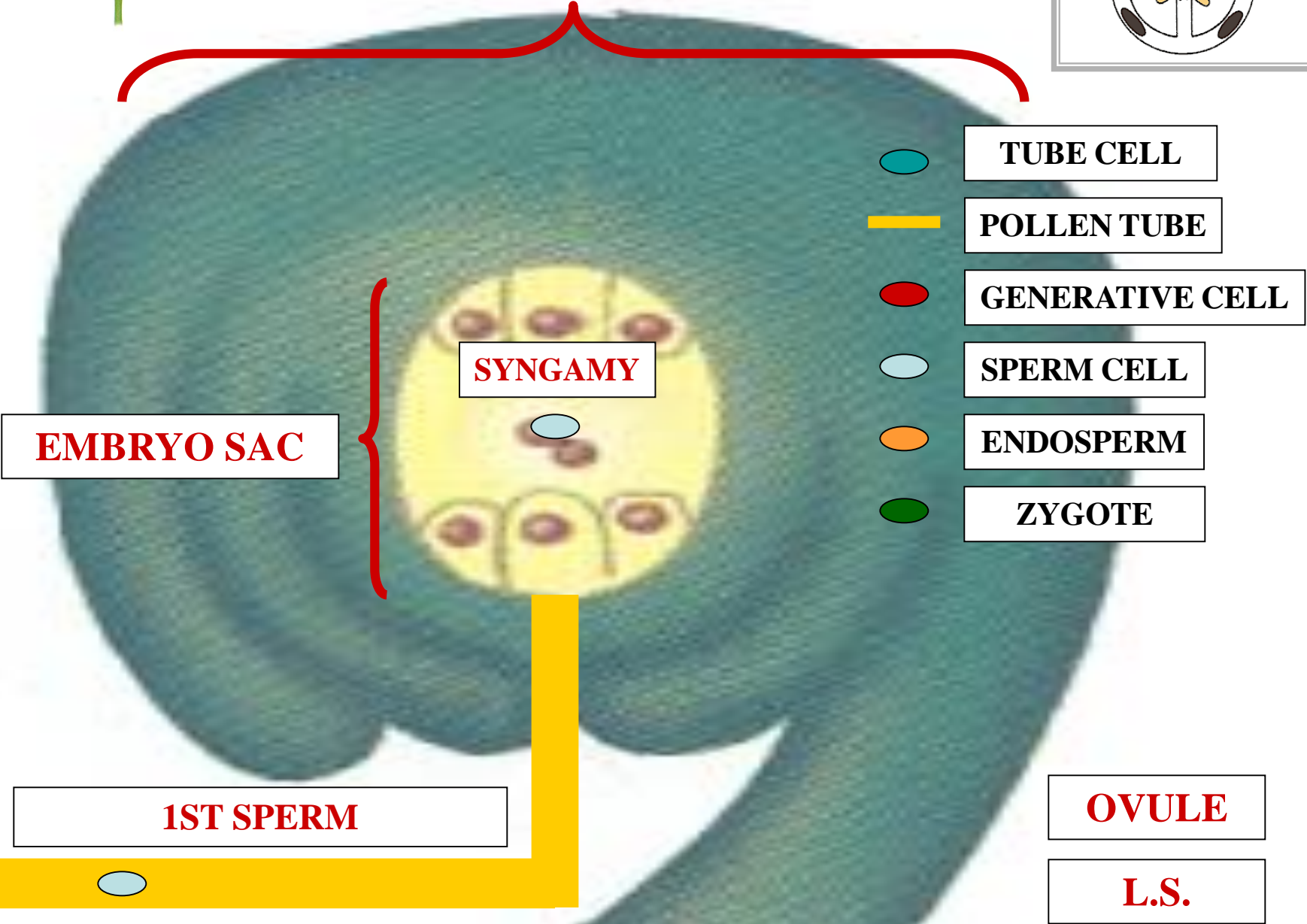
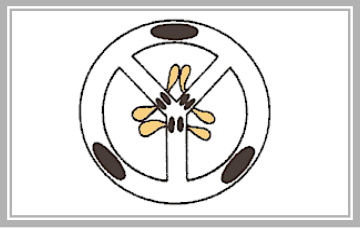
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**OVULE**

**L.S.**

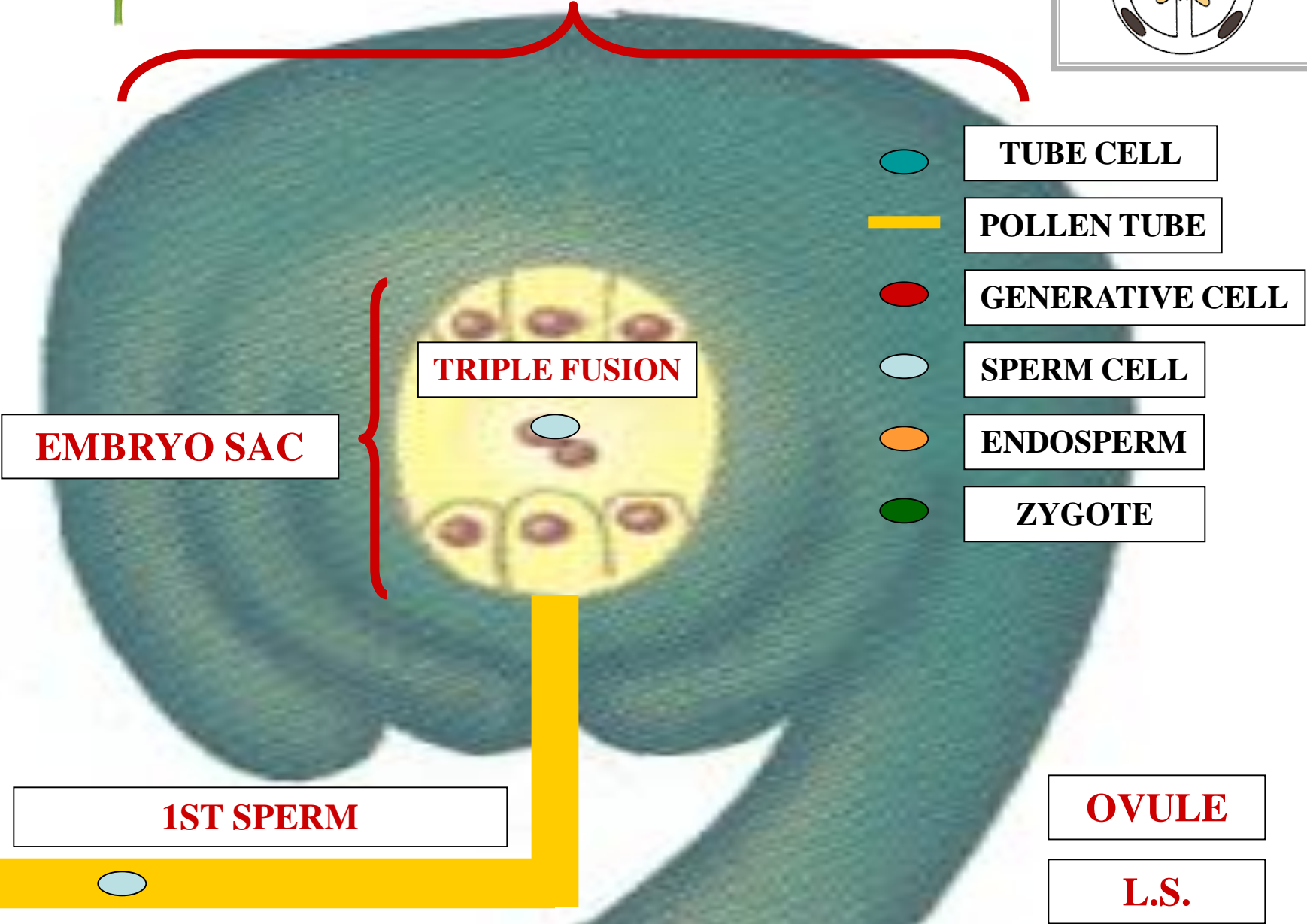
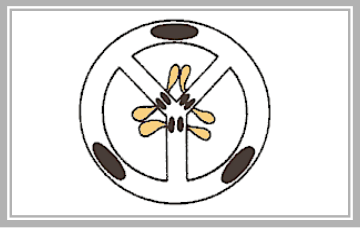


**OVULE**





**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**TRIPLE FUSION**

**1ST SPERM**

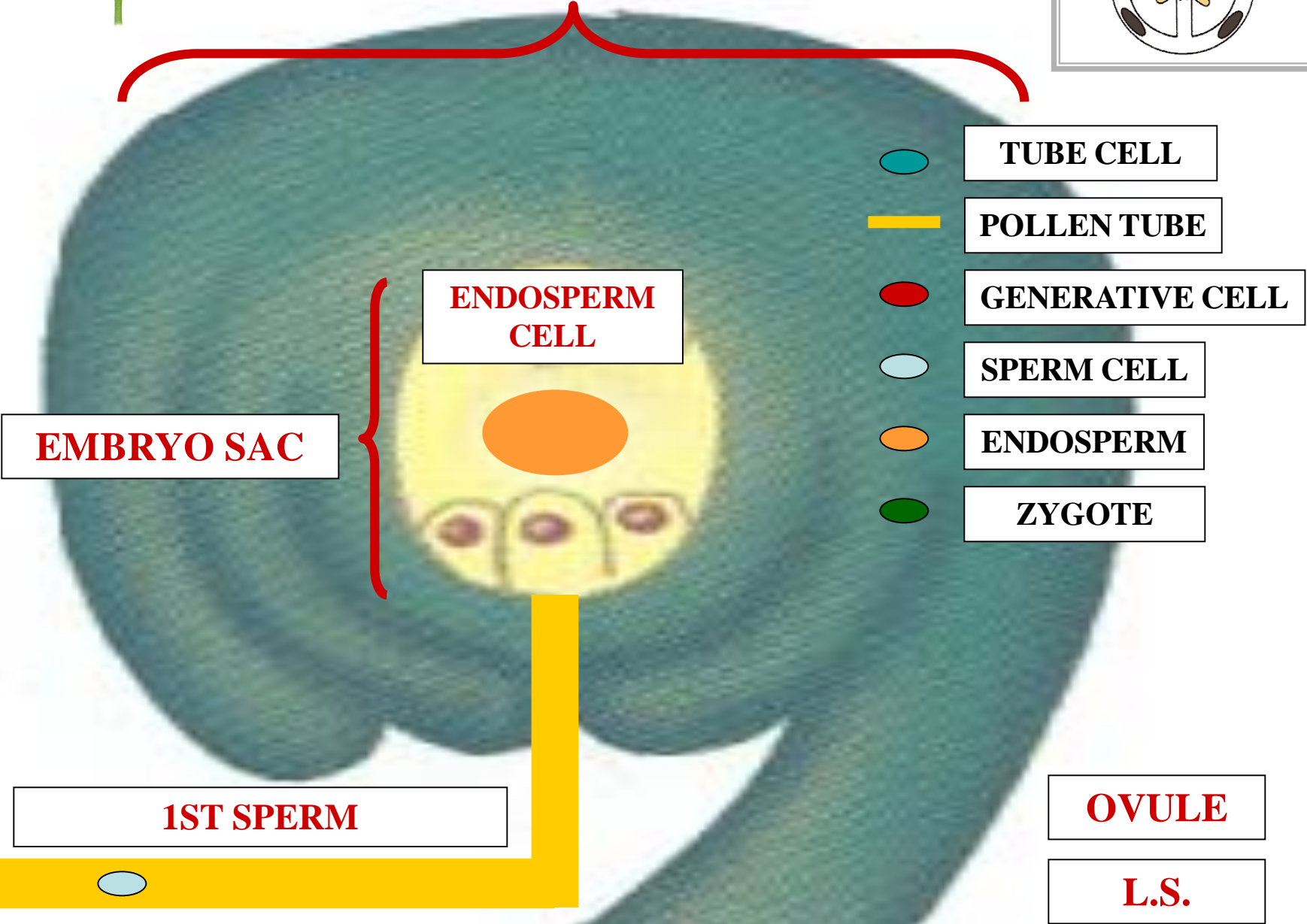
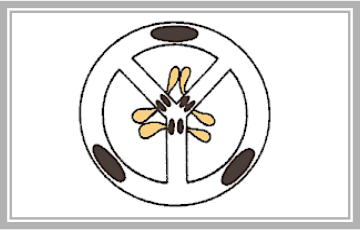
**OVULE**

**L.S.**





**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**ENDOSPERM CELL**

**EMBRYO SAC**

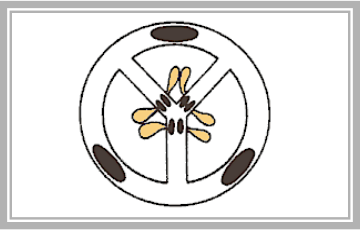
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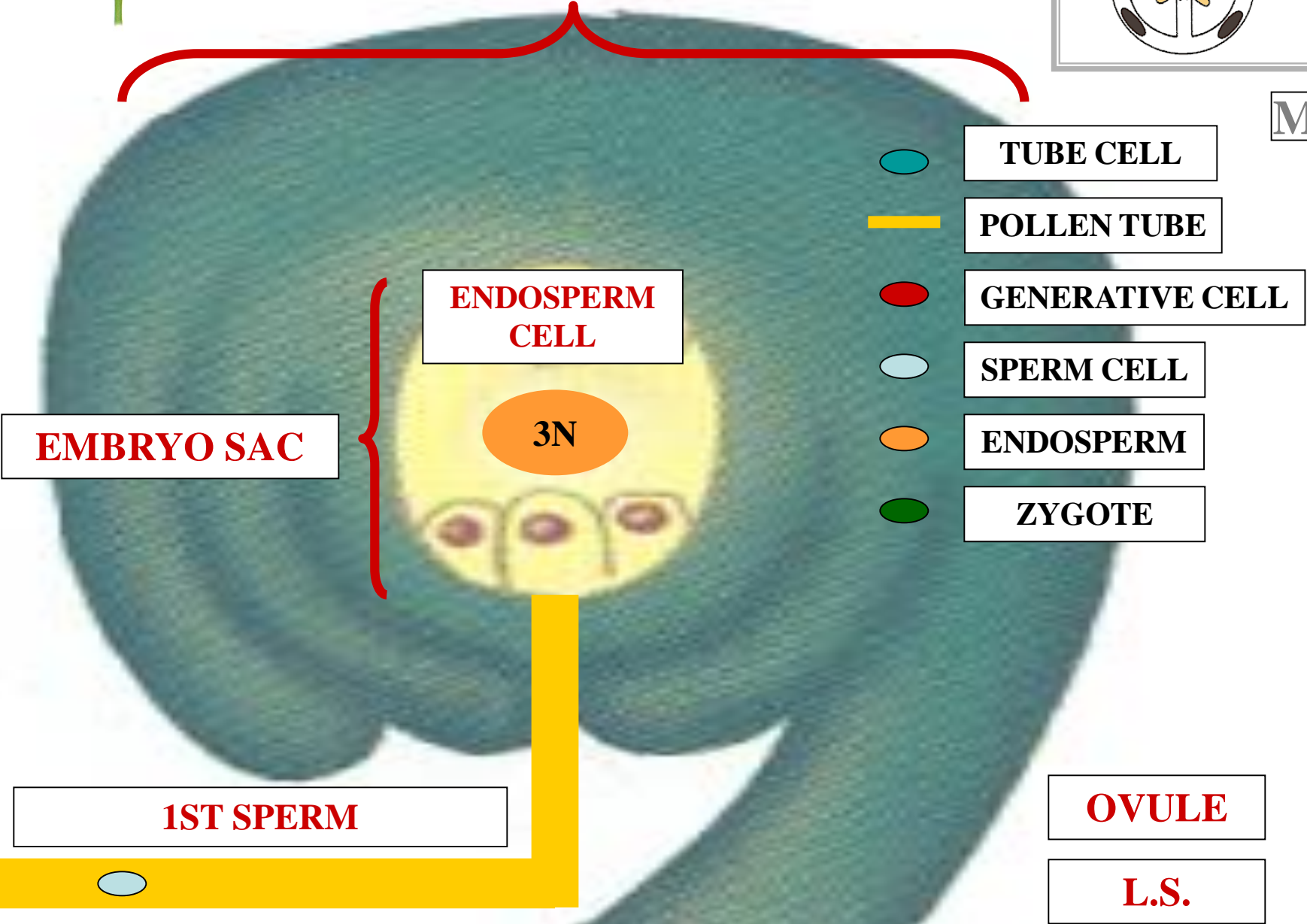
**L.S.**



**OVULE**



**M**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**ENDOSPERM CELL**

**3N**

**EMBRYO SAC**

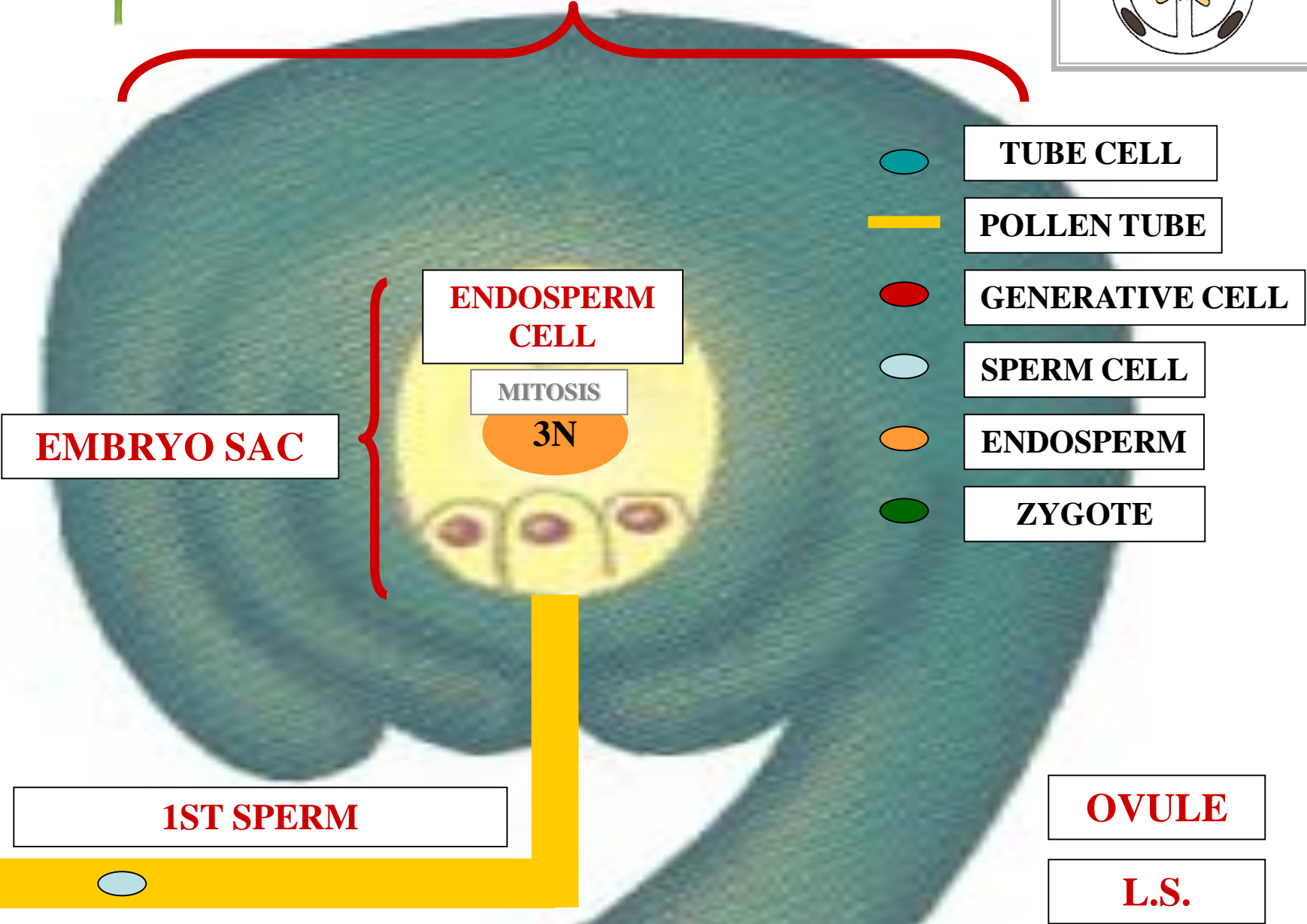
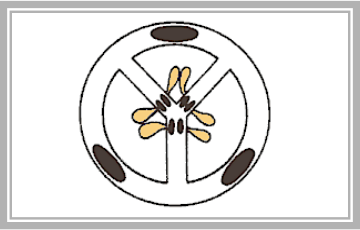
**1ST SPERM**

**OVULE**

**L.S.**



**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**ENDOSPERM CELL**

**MITOSIS**

**3N**

**EMBRYO SAC**

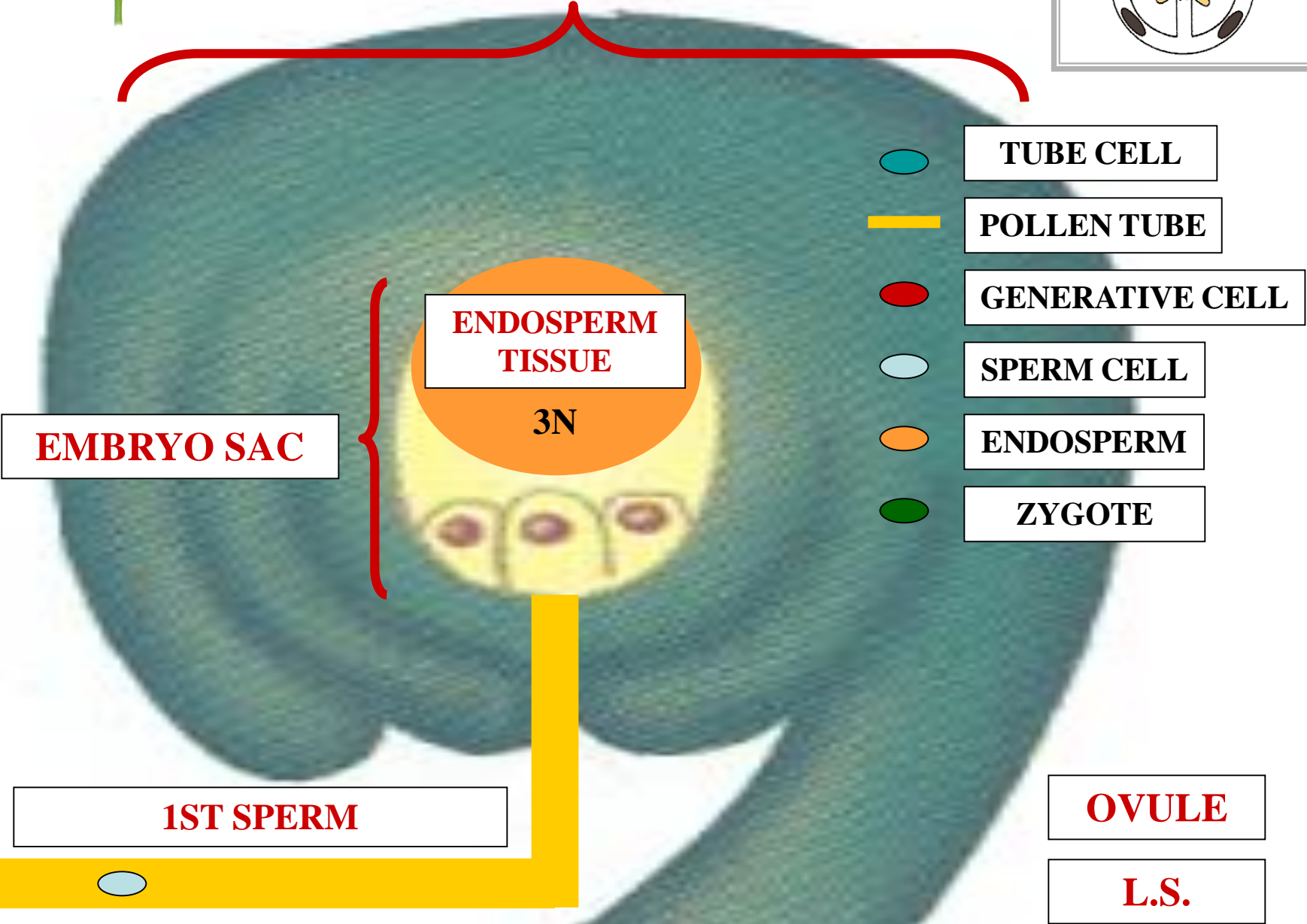
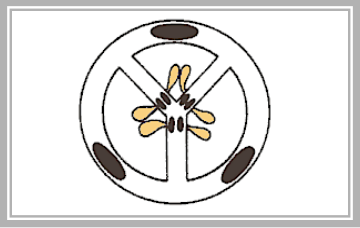
**1ST SPERM**

**OVULE**

**L.S.**



**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**ENDOSPERM TISSUE**

$3N$

**EMBRYO SAC**

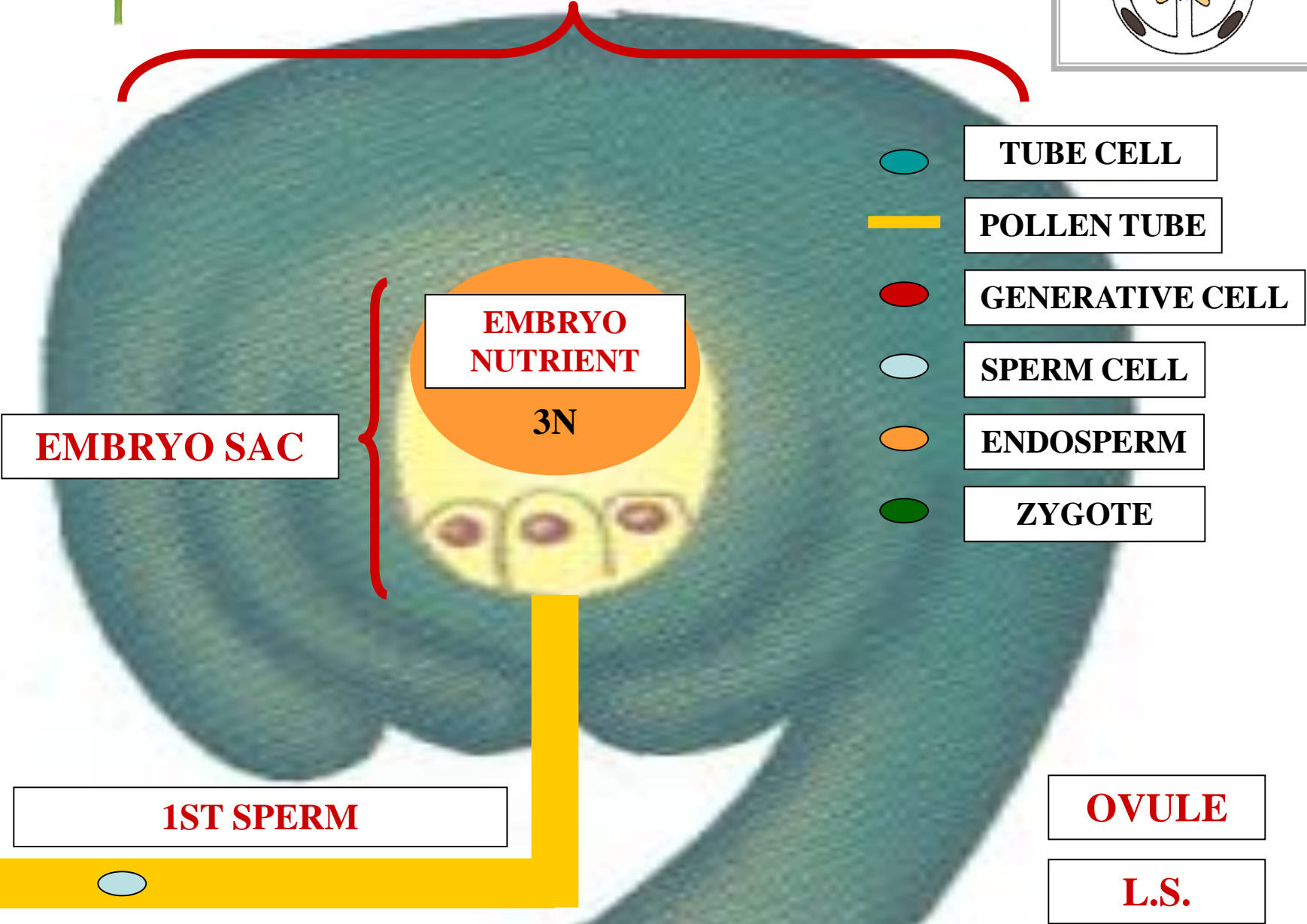
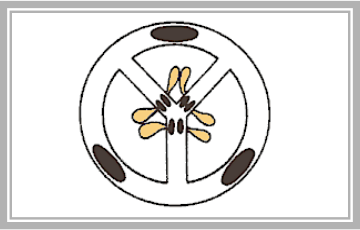
**1ST SPERM**

**OVULE**

**L.S.**



**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**EMBRYO NUTRIENT**

**3N**

**1ST SPERM**

**OVULE**

**L.S.**



**OVULE**



**EMBRYO SAC**

**EMBRYO NUTRIENT**

**3N**

**2ND SPERM**

**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**OVULE**

**L.S.**



**EMBRYO SAC**

**EMBRYO NUTRIENT**

**3N**

**2ND SPERM**

**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

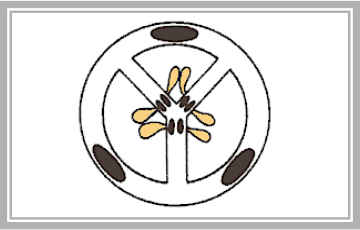
**ZYGOTE**

**OVULE**

**L.S.**



**OVULE**



**EMBRYO SAC**

**EMBRYO NUTRIENT**

**3N**

**EGG**

**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**2ND SPERM**

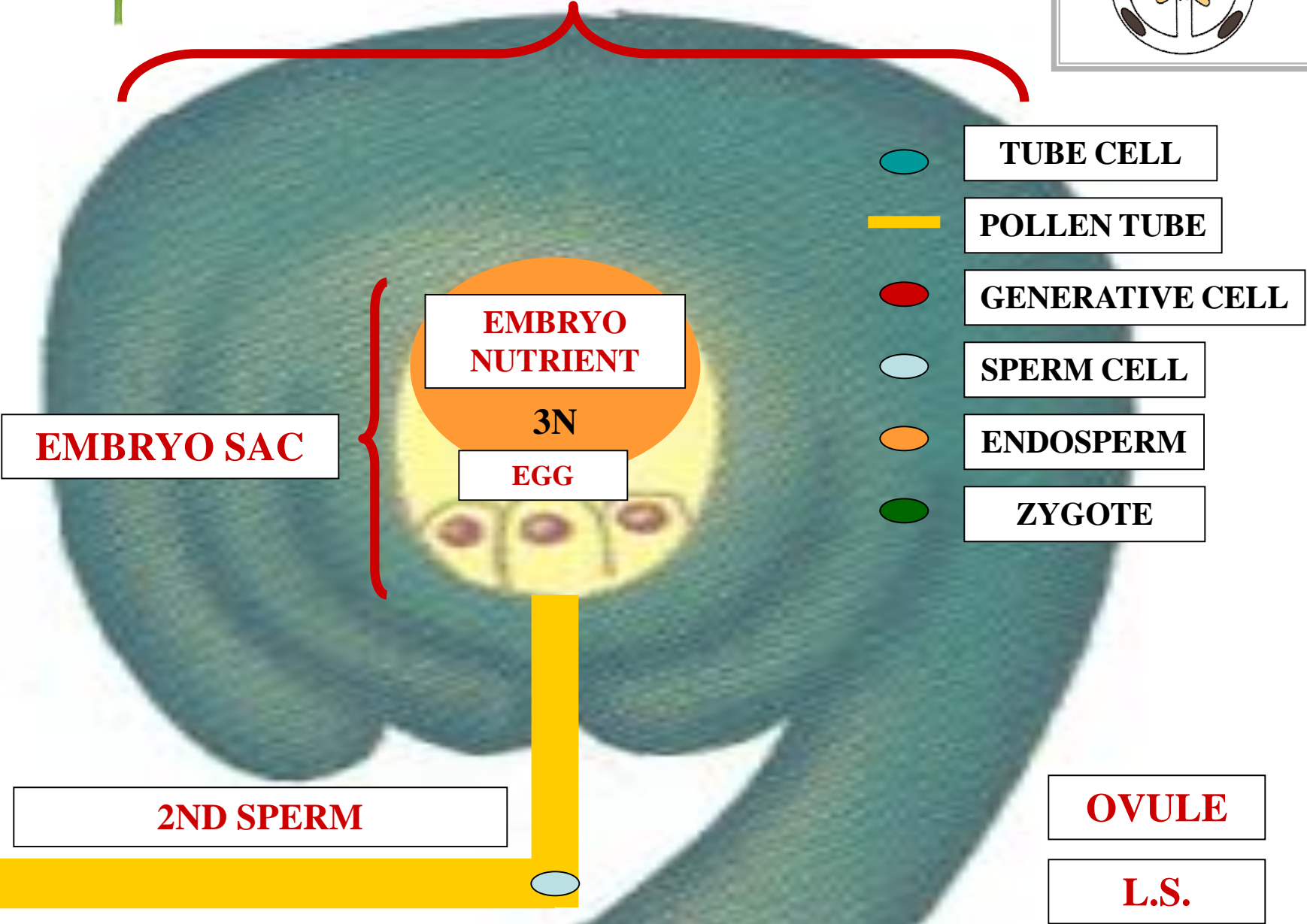
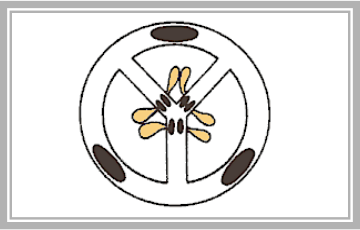
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**L.S.**





**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO NUTRIENT**

**3N**

**EGG**

**EMBRYO SAC**

**2ND SPERM**

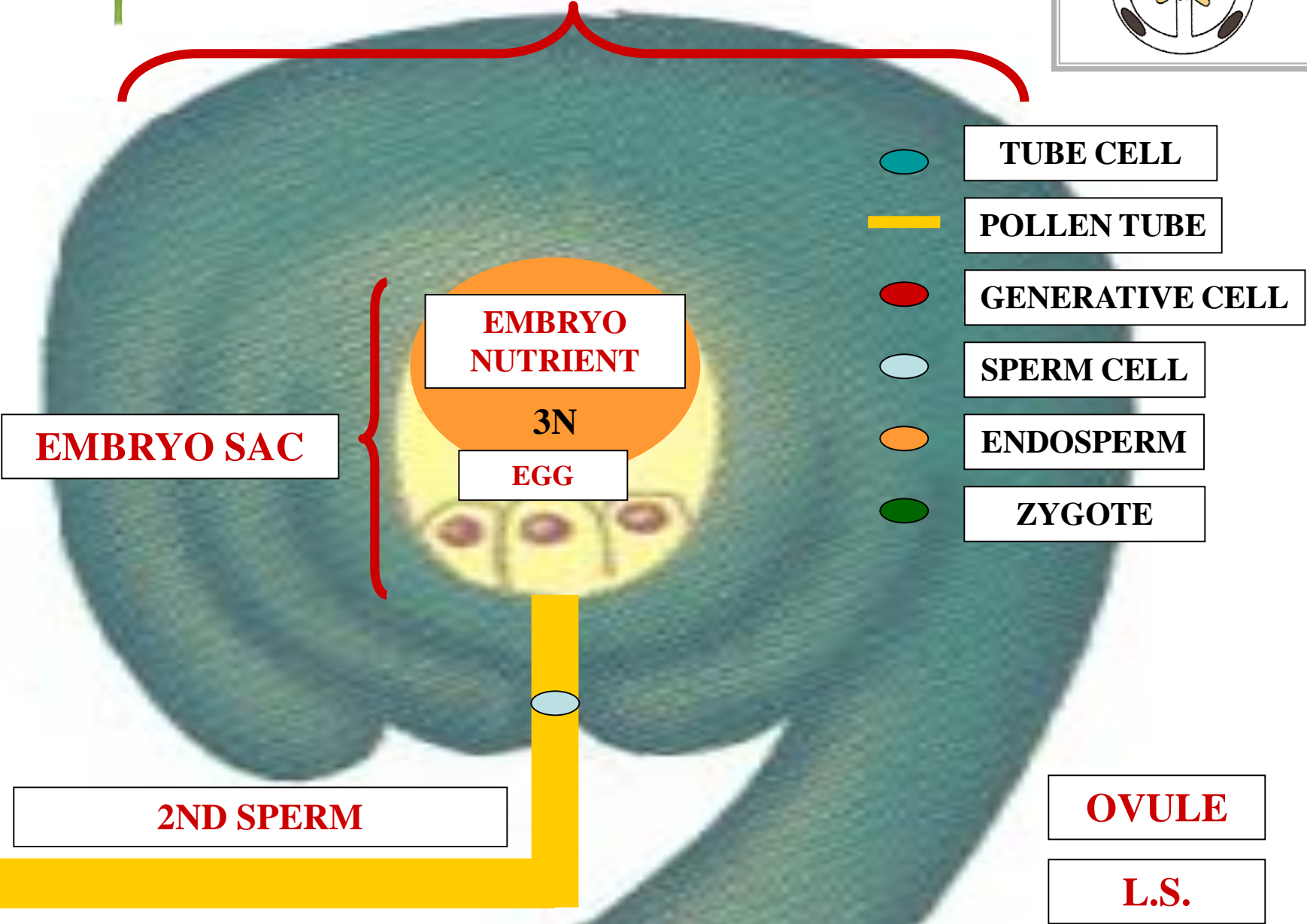
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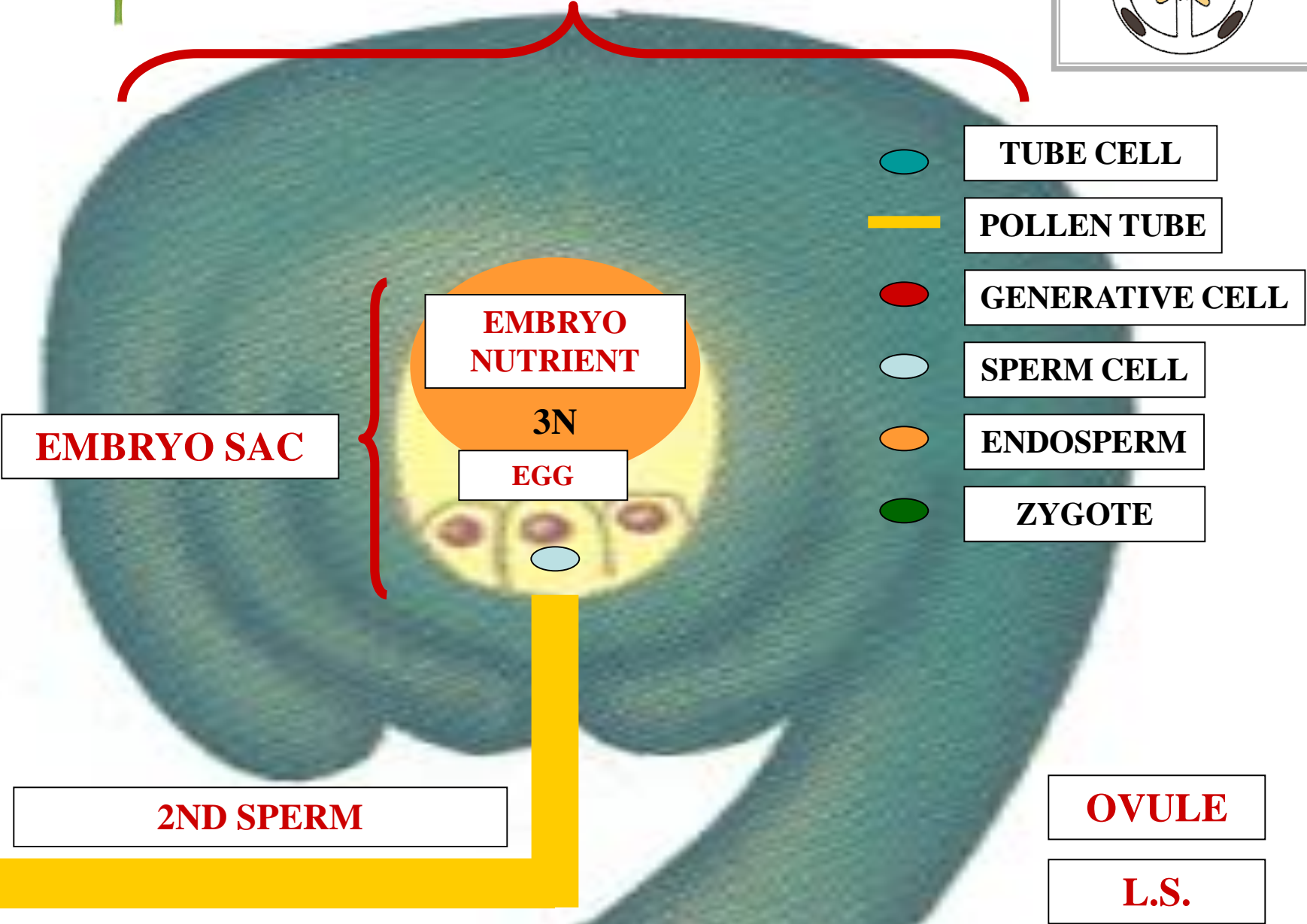
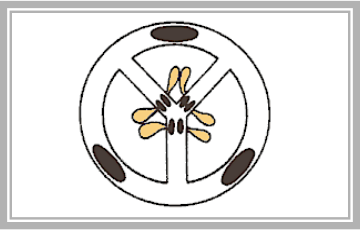


**OVULE**





**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**EMBRYO NUTRIENT**

**EGG**

**3N**

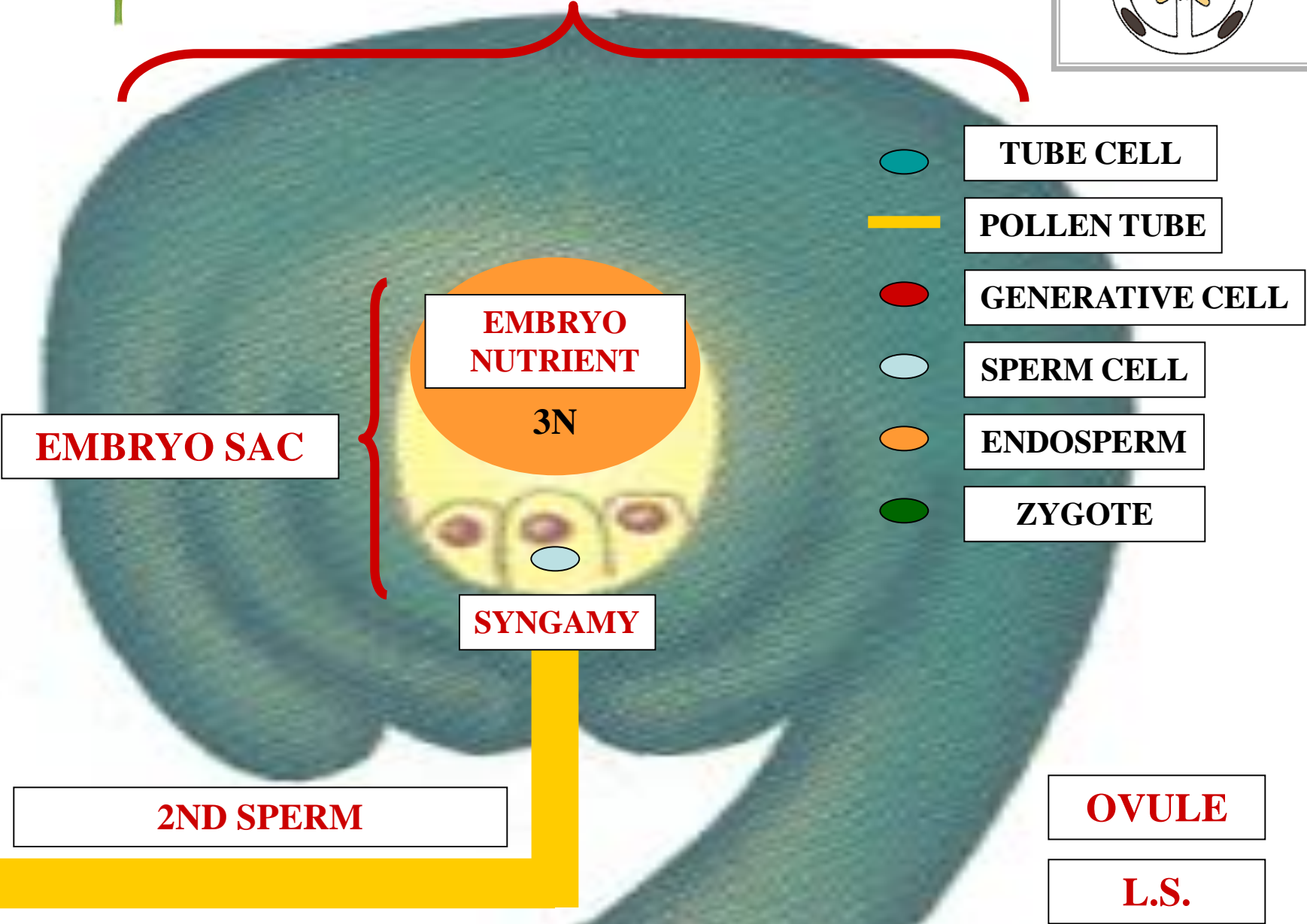
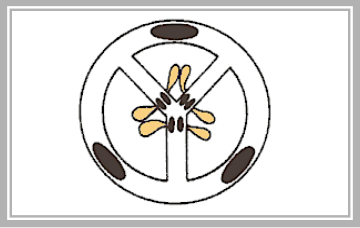
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**OVULE**

**L.S.**



**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**EMBRYO NUTRIENT**

**3N**

**SYNGAMY**

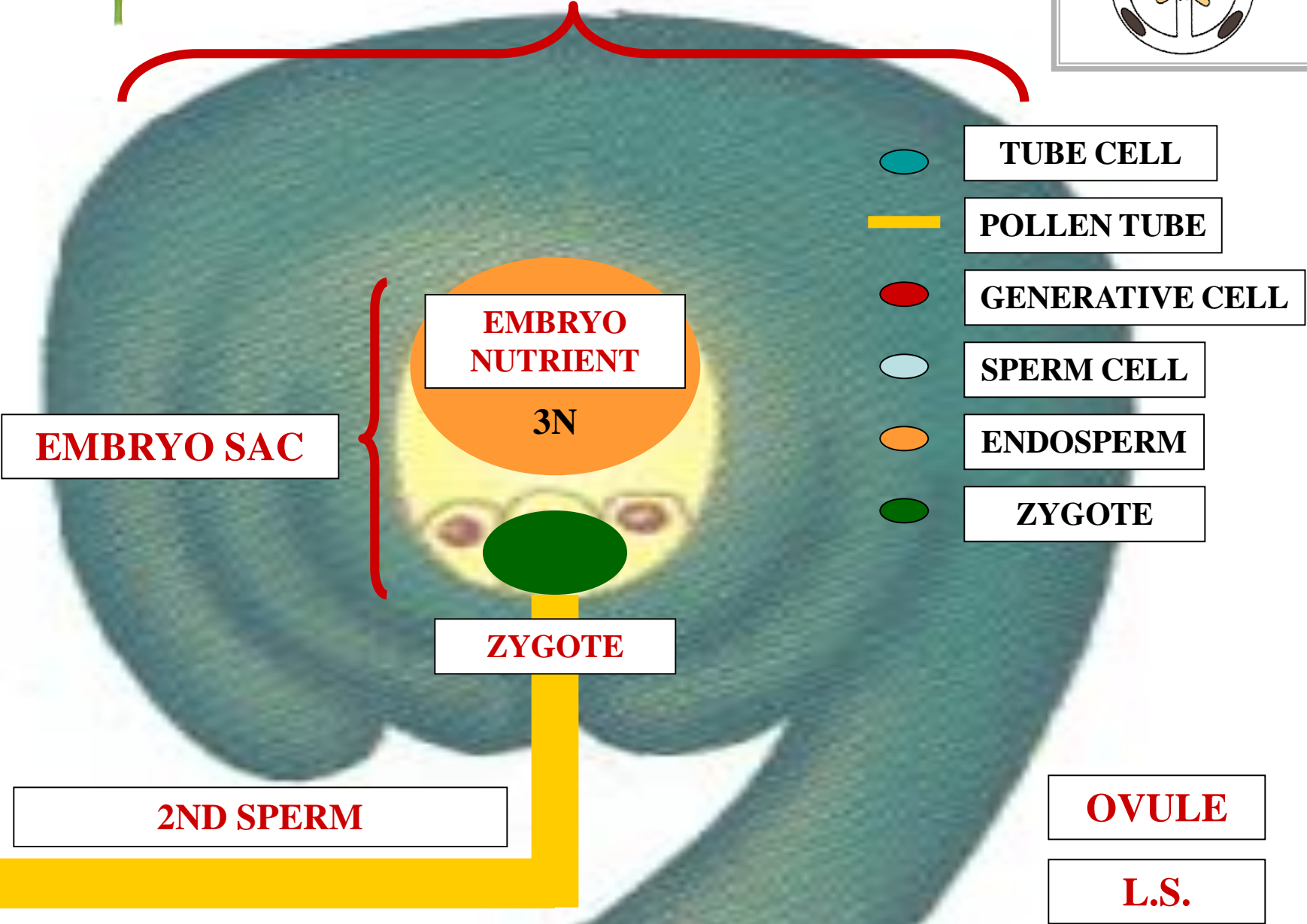
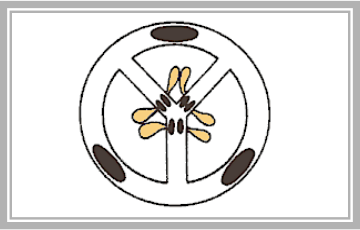
**2ND SPERM**

**OVULE**

**L.S.**



**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**EMBRYO NUTRIENT**

**3N**

**ZYGOTE**

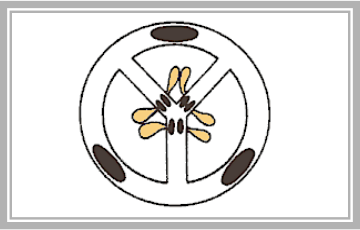
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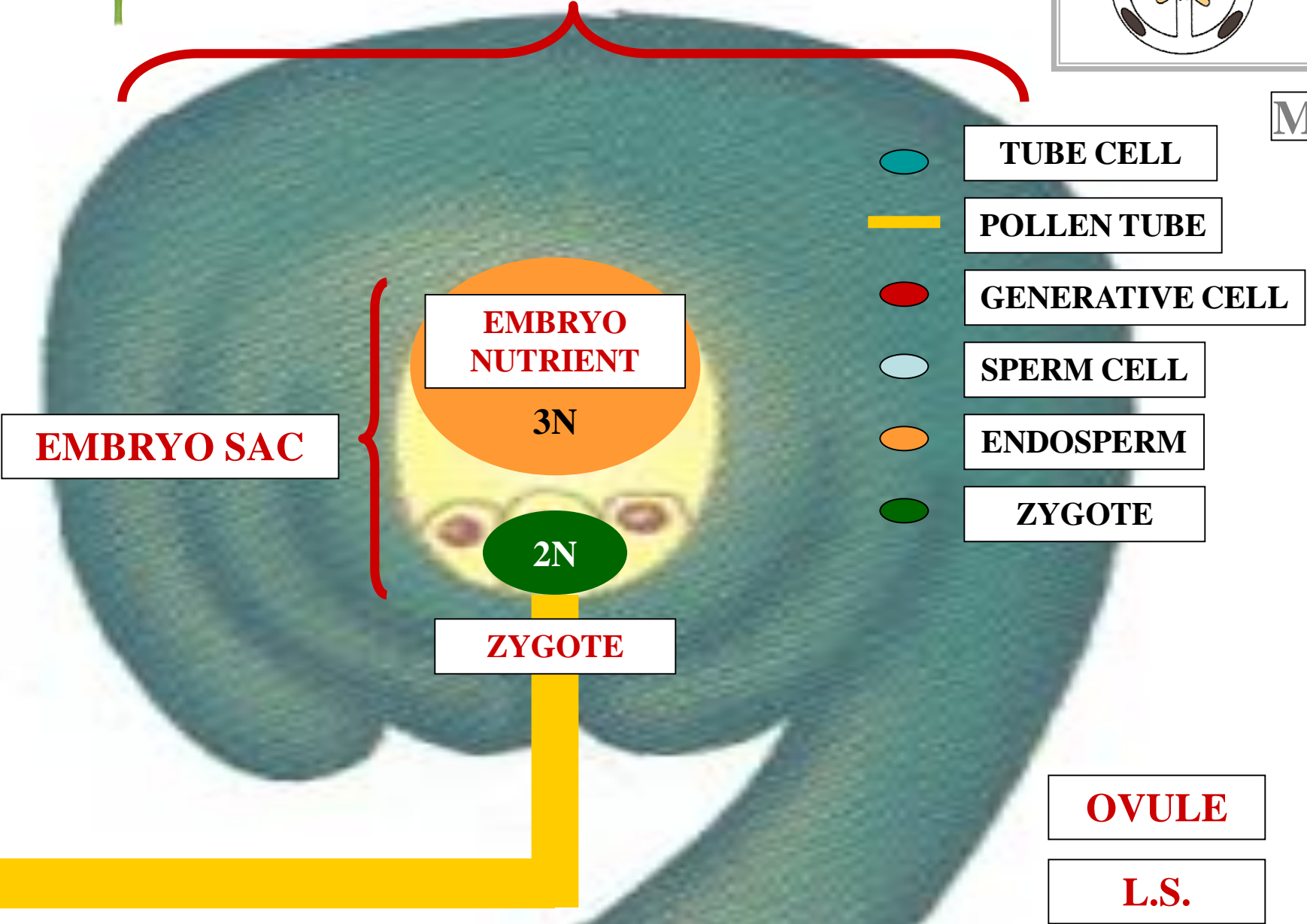
**L.S.**



**OVULE**



**M**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**EMBRYO NUTRIENT**

**3N**

**2N**

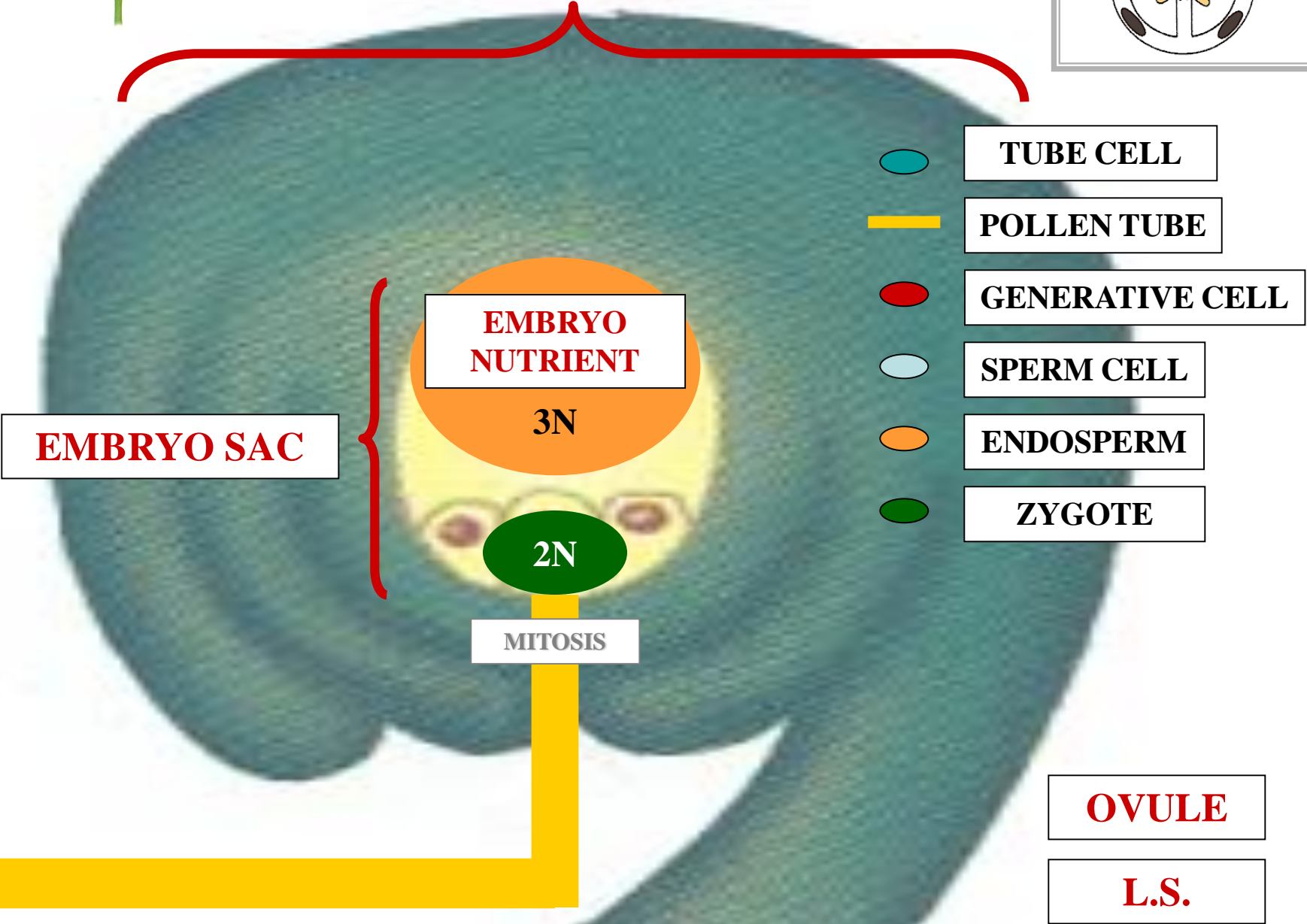
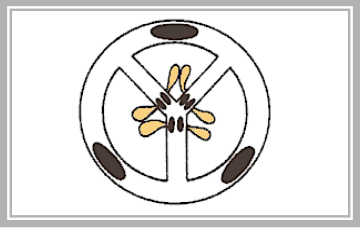
**ZYGOTE**

**OVULE**

**L.S.**



**OVULE**



**TUBE CELL**

**POLLEN TUBE**

**GENERATIVE CELL**

**SPERM CELL**

**ENDOSPERM**

**ZYGOTE**

**EMBRYO SAC**

**EMBRYO NUTRIENT**

**3N**

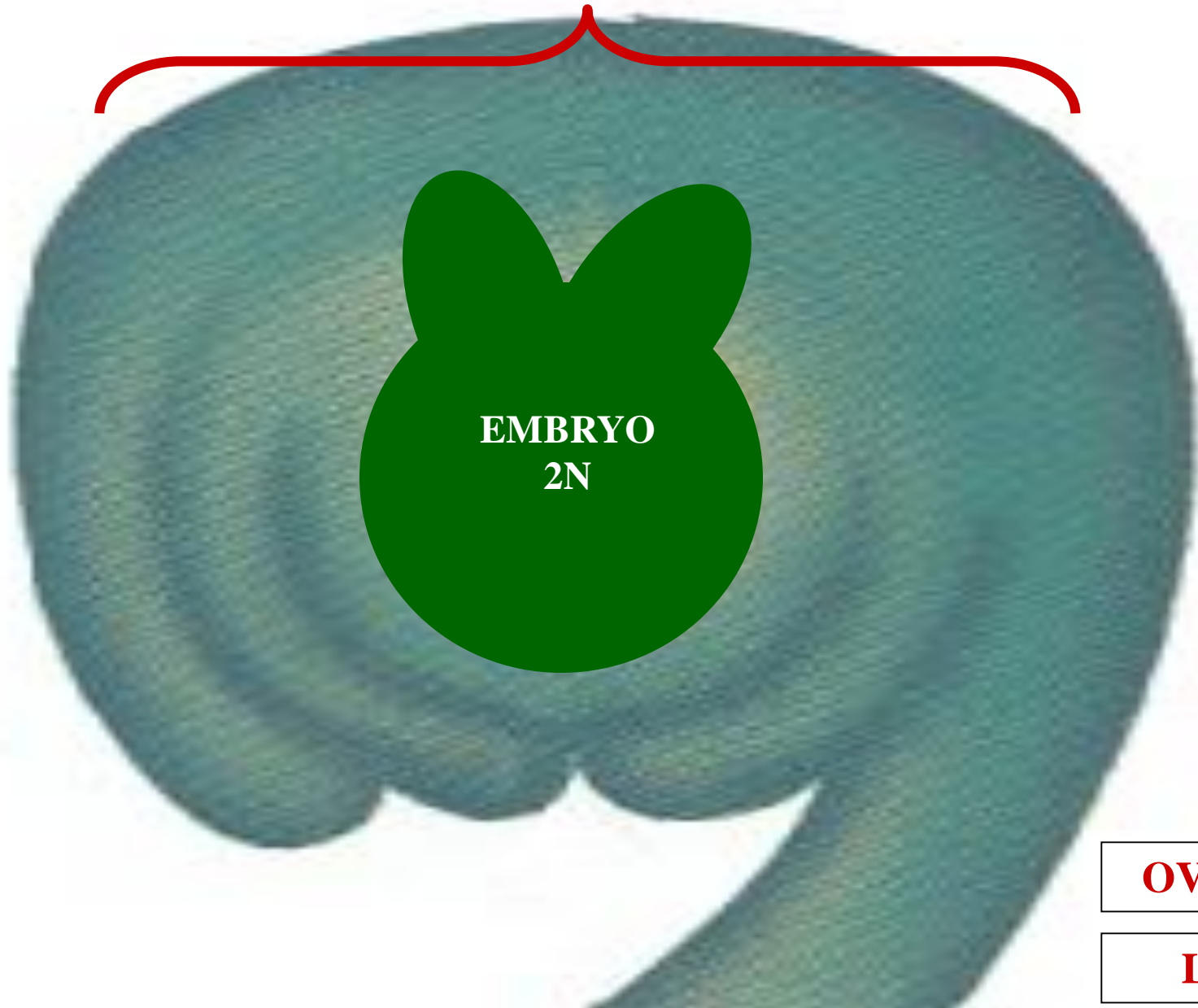
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**MITOSIS**

**OVULE**

**L.S.**

**OVULE**

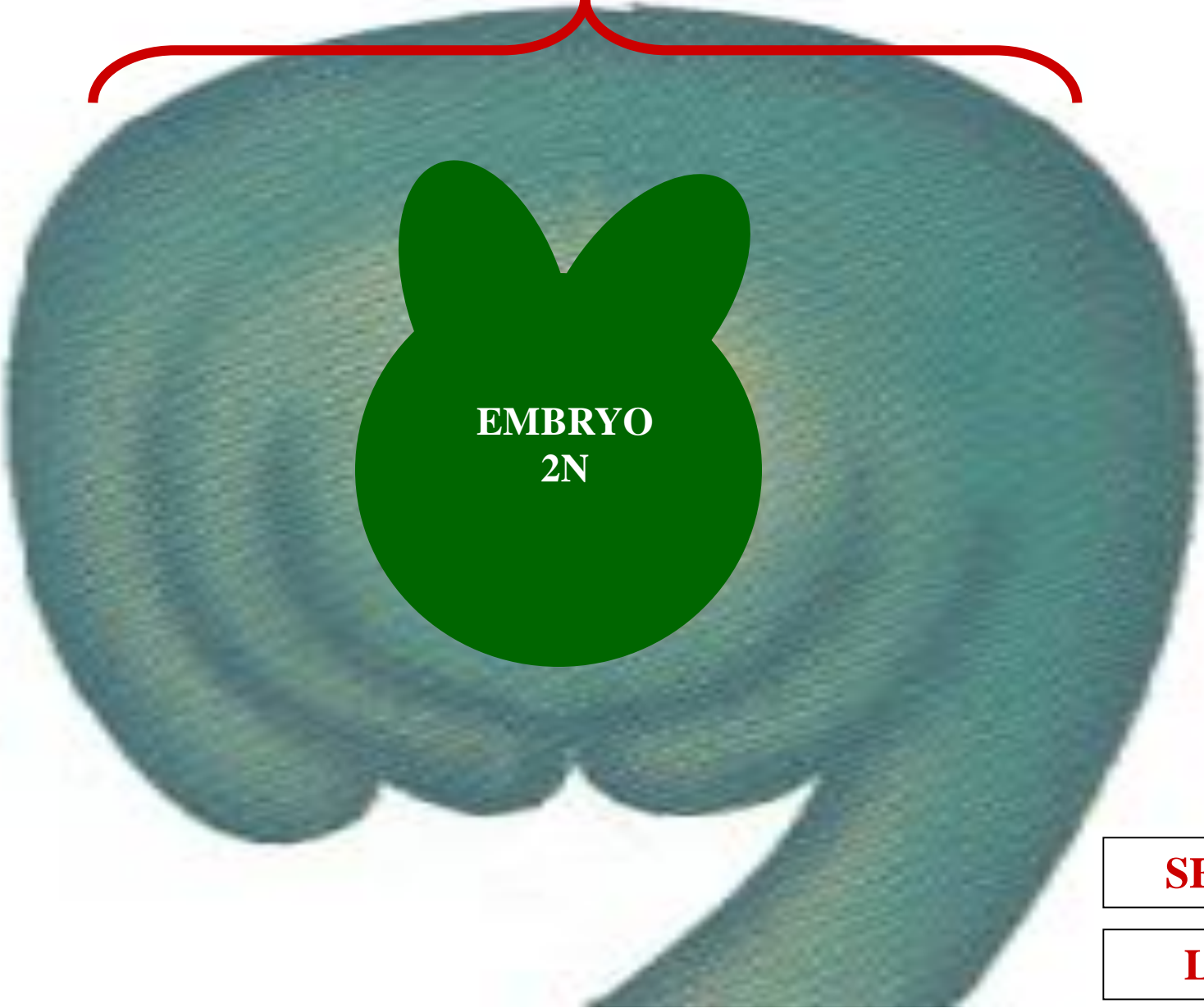


**EMBRYO**  
**2N**

**OVULE**

**L.S.**

**SEED**



**EMBRYO**  
**2N**

**SEED**

**L.S.**





**SEED**



**EMBRYO**  
**2N**

**MITOSIS**

**SEED**

**L.S.**

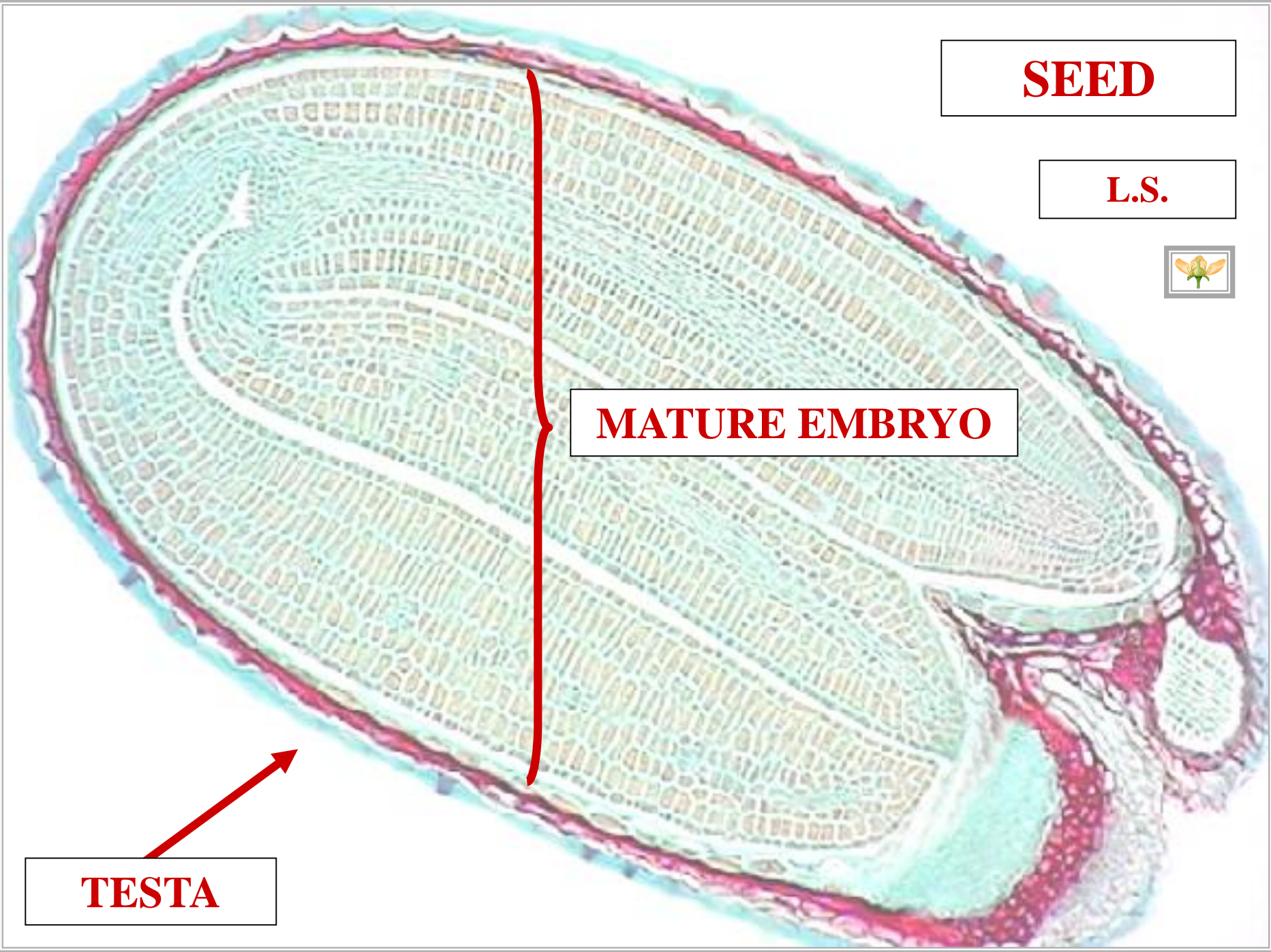
**SEED**

**L.S.**



**MATURE EMBRYO**

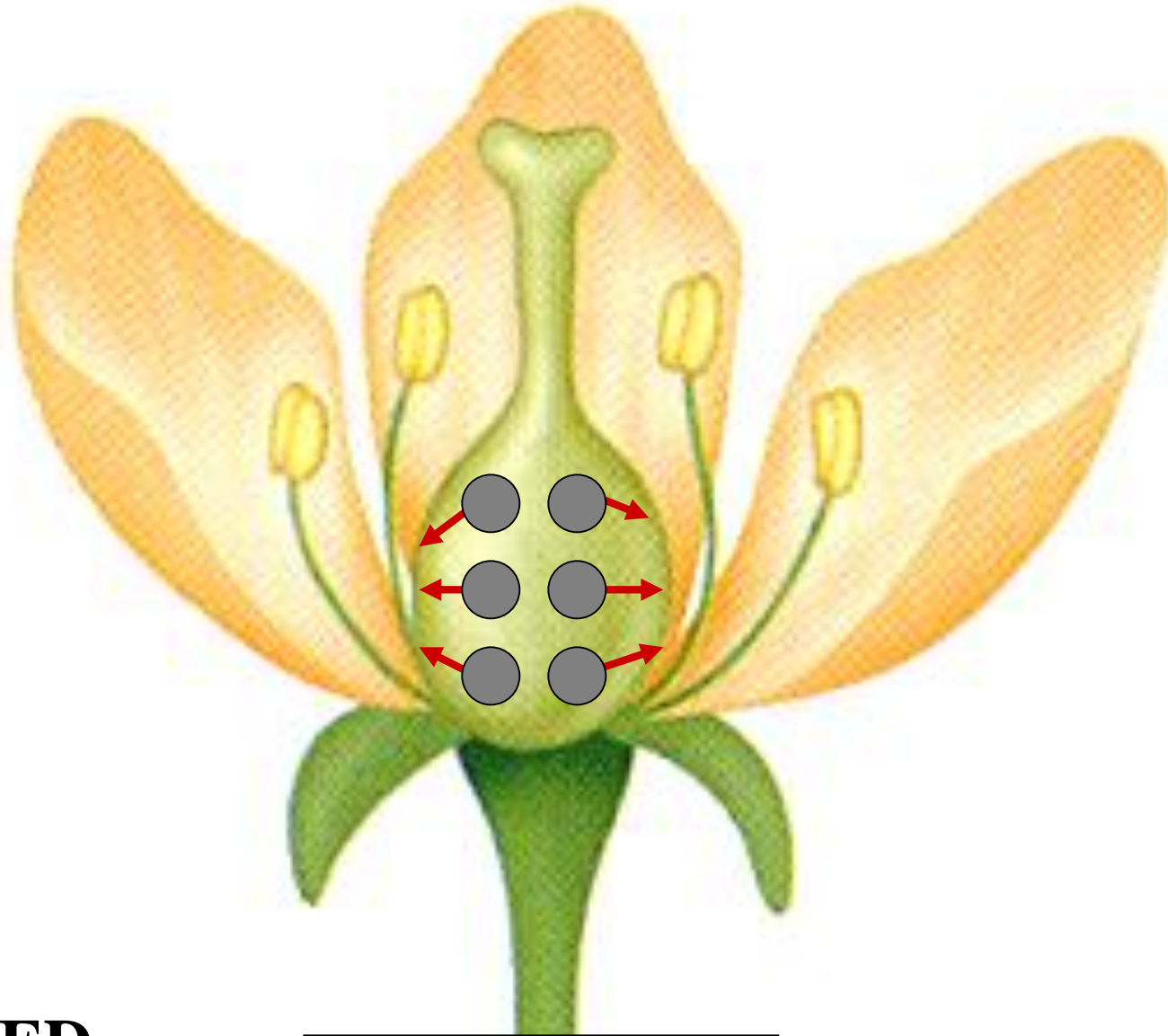
**TESTA**





● = SEED

**FLOWER**



● = SEED

→ = HORMONE

**FLOWER**