



Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



MAGNOLIALES

TULIP POPLAR

AP



MAGNOLIACEAE



LIRIODENDRON



TULIPIFERA

TAXON
ANY TAXONOMIC
ENTITY WITHIN
RANK

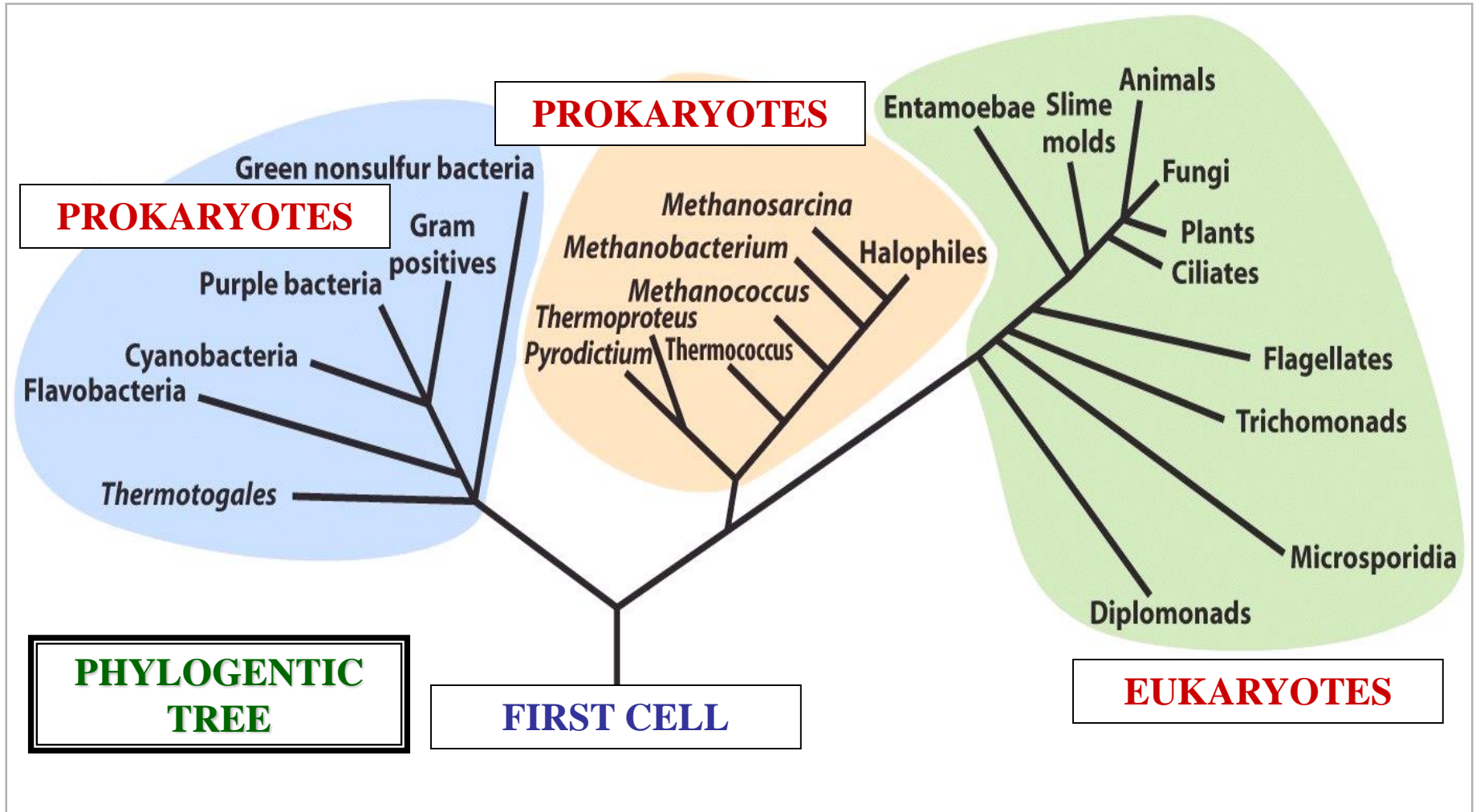




RANK VS TAXON APPLIED

RANK VS TAXON

APPLIED



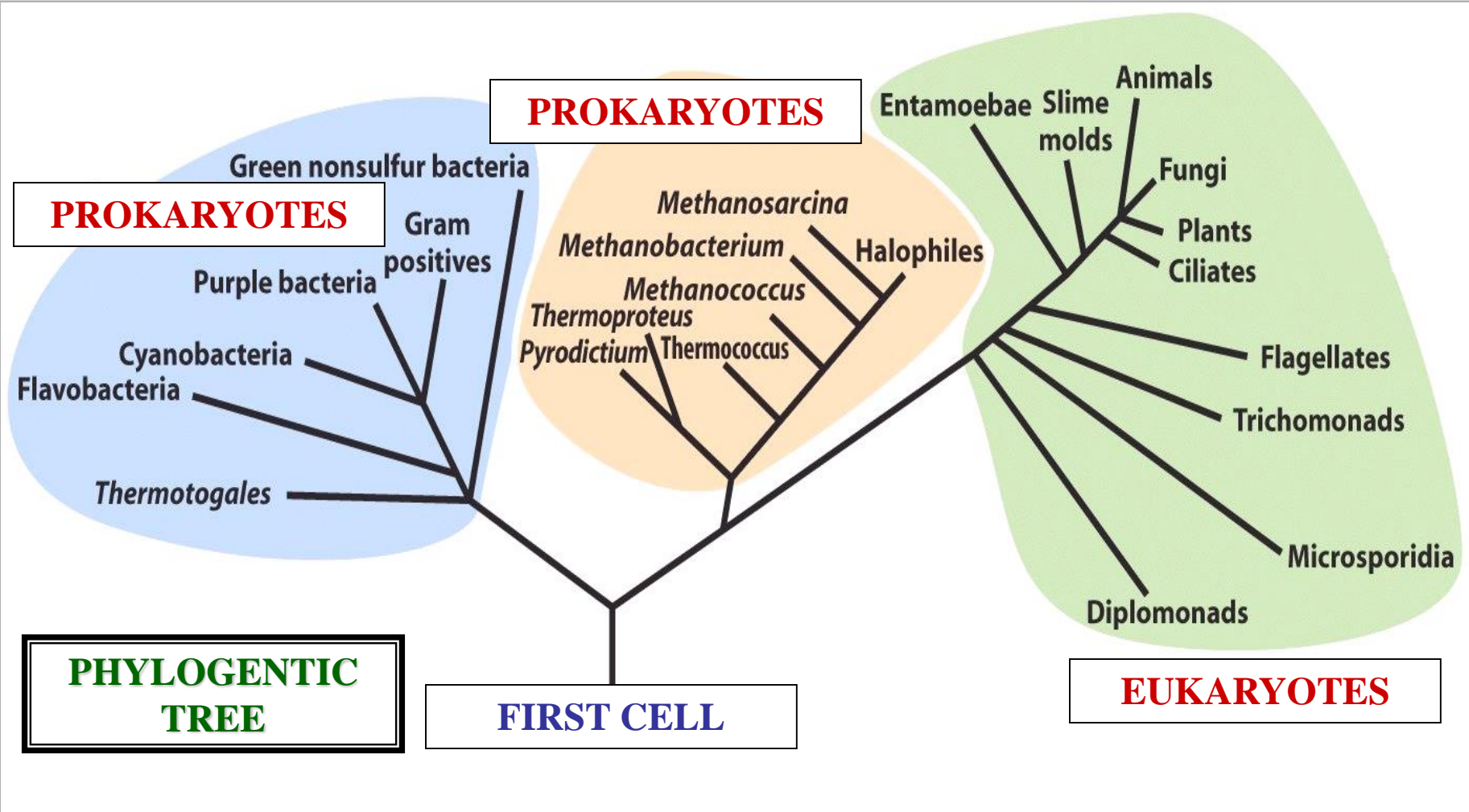
DOMAIN

RANK

DOMAIN

DOMAIN

DOMAIN



DOMAIN

RANK

DOMAIN

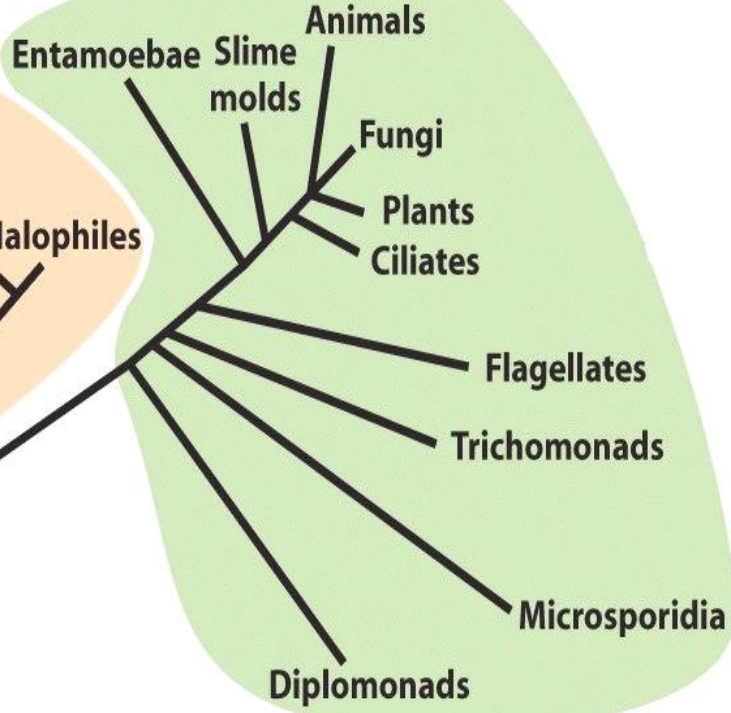
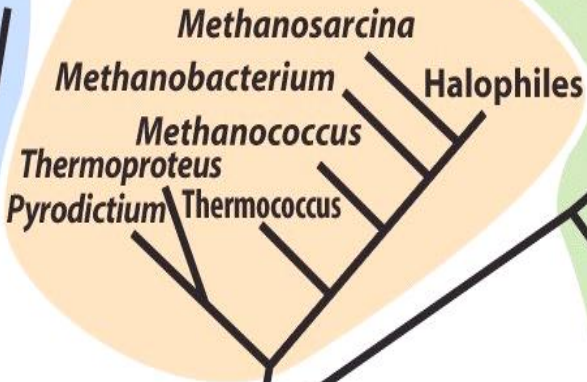
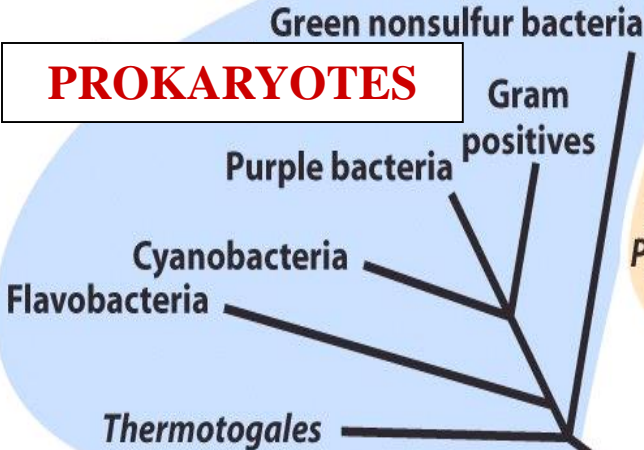
DOMAIN

DOMAIN

EUBACTERIA

PROKARYOTES

PROKARYOTES



PHYLOGENETIC TREE

FIRST CELL

EUKARYOTES

DOMAIN

RANK

DOMAIN

EUBACTERIA

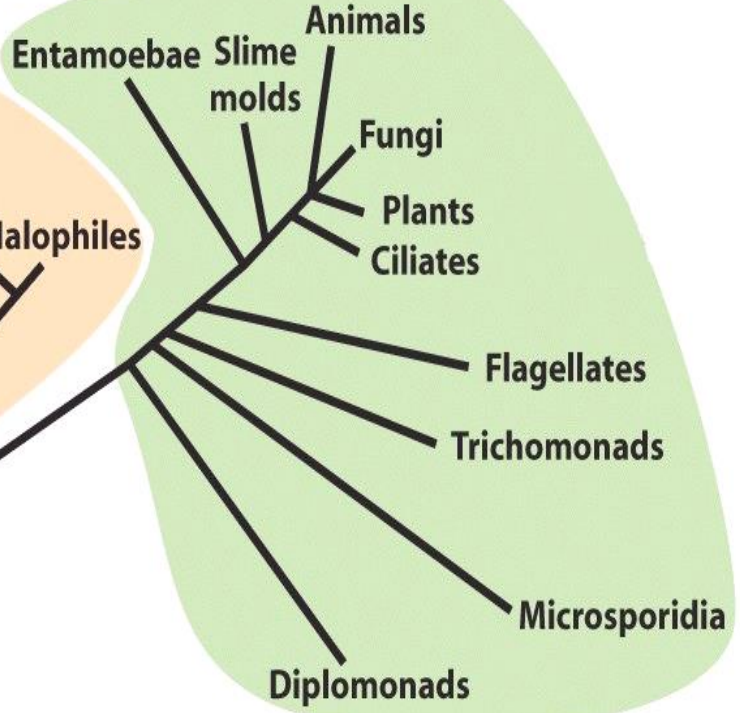
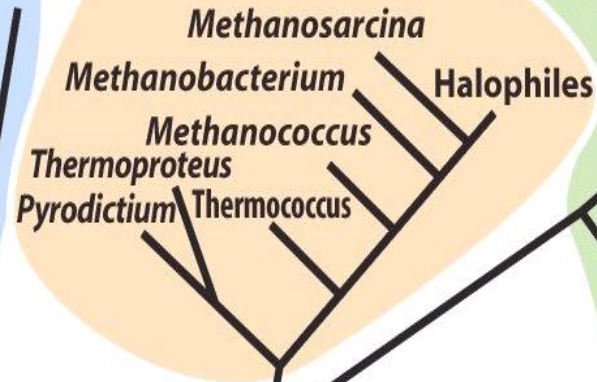
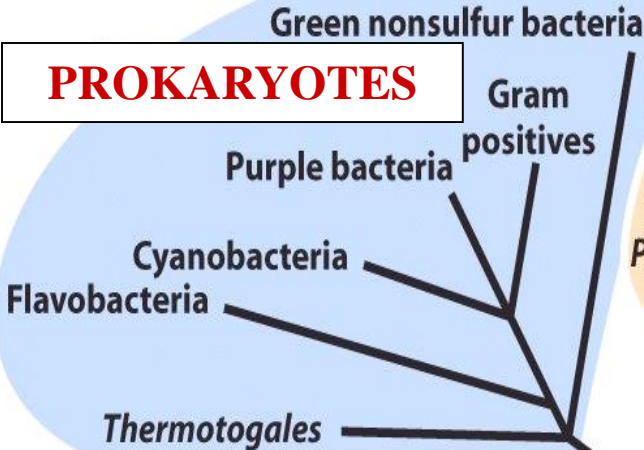
DOMAIN

ARCHAEBACTERIA

DOMAIN

PROKARYOTES

PROKARYOTES



PHYLOGENTIC TREE

FIRST CELL

EUKARYOTES

DOMAIN

RANK

DOMAIN

EUBACTERIA

DOMAIN

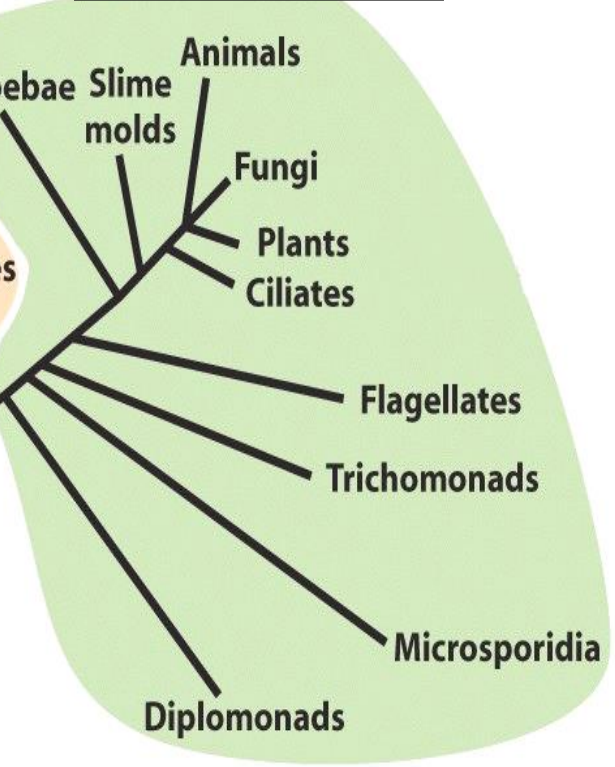
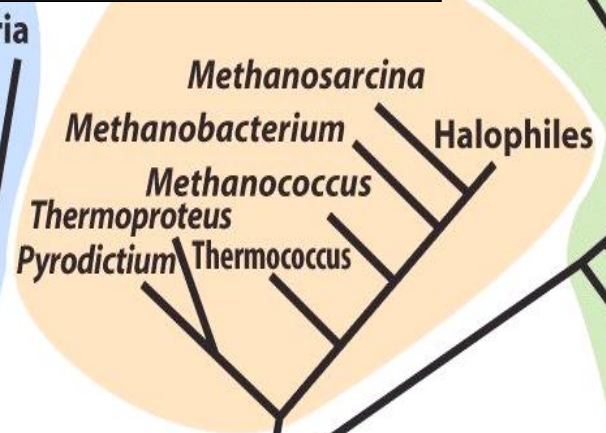
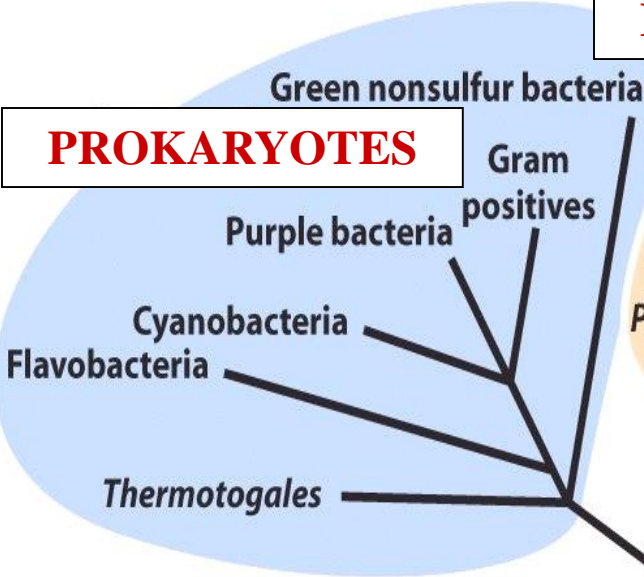
ARCHAEBACTERIA

DOMAIN

EUKARYA

PROKARYOTES

PROKARYOTES



PHYLOGENTIC TREE

FIRST CELL

EUKARYOTES



DOMAIN

RANK

TAXON

EUBACTERIA

TAXON

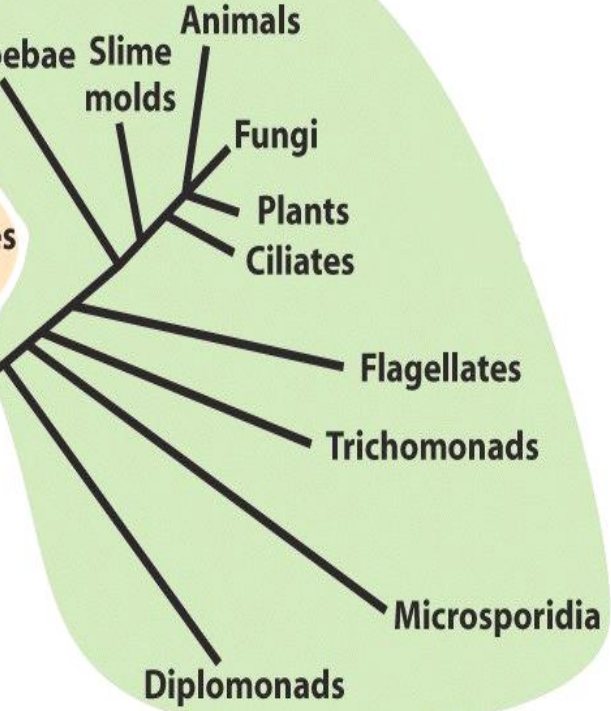
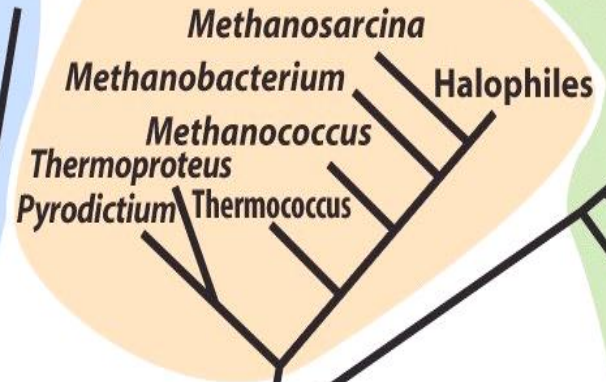
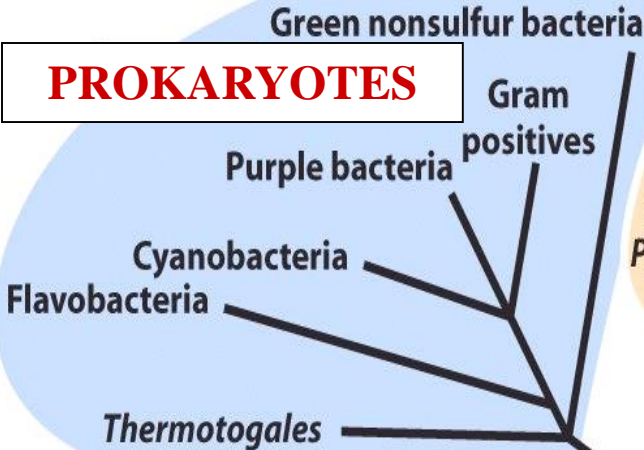
ARCHAEBACTERIA

TAXON

EUKARYA

PROKARYOTES

PROKARYOTES



PHYLOGENETIC TREE

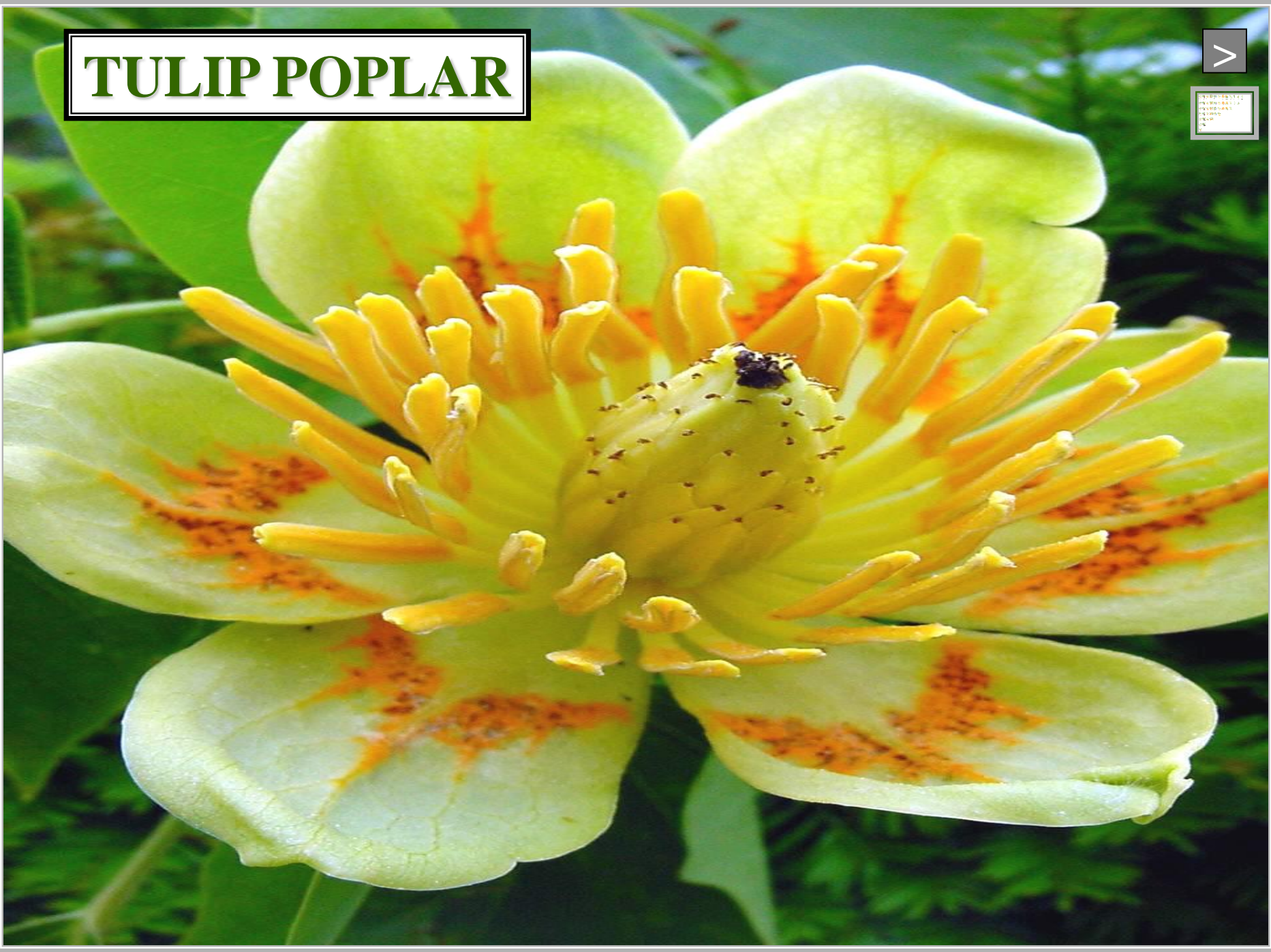
FIRST CELL

EUKARYOTES



TAXONOMIC HIERARCHY APPLIED

TULIP POPLAR





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



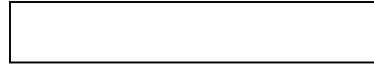
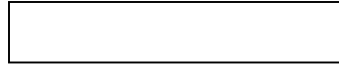
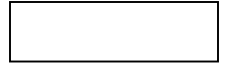
Pea



Corn



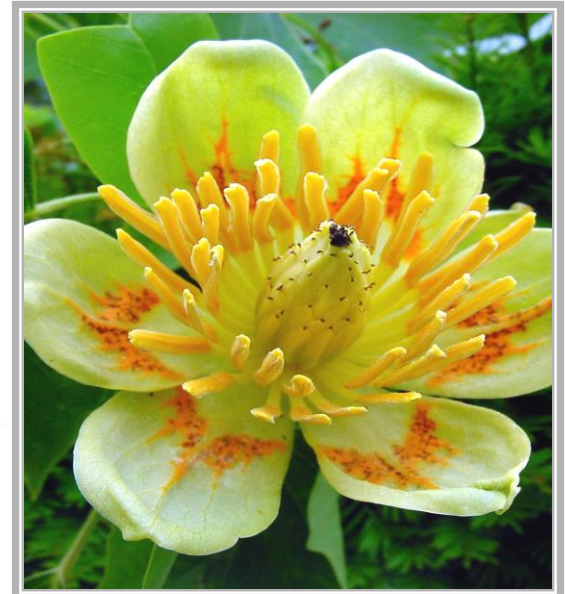
Grass



TULIP POPLAR



RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



DOMAIN



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TULIP POPLAR



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RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



EUKARYA



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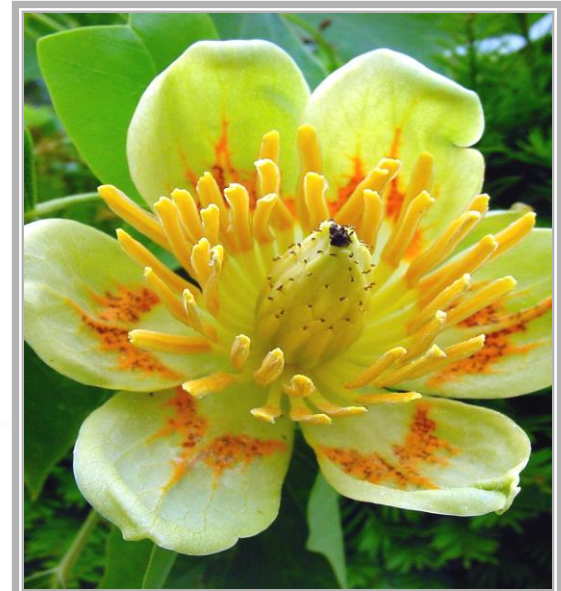
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TULIP POPLAR



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RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



KINGDOM



TULIP POPLAR



RED = STANDARD ENDING



PLANTAE



Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



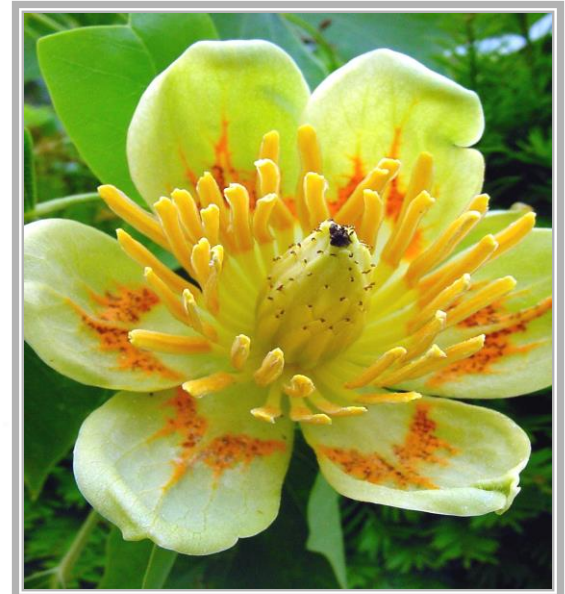
Grass



TULIP POPLAR



RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



PHYLUM



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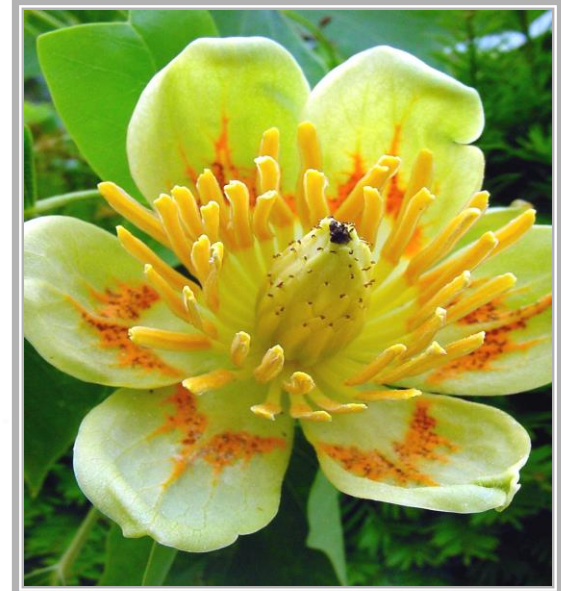
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TULIP POPLAR



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RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



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[Empty box]

TULIP POPLAR



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RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



CLASS



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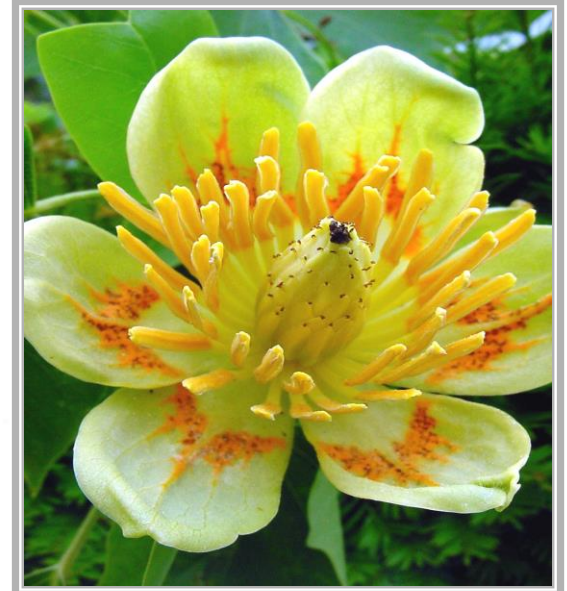
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TULIP POPLAR



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RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



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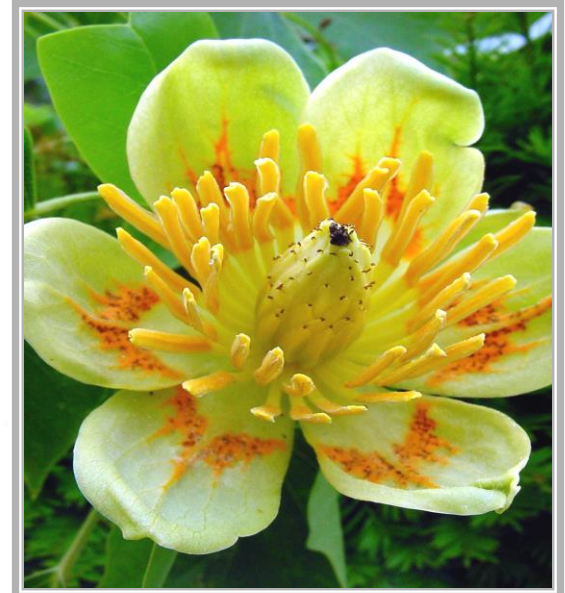
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TULIP POPLAR



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RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



ORDER



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TULIP POPLAR



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RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



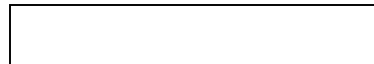
MAGNOLIOPHYTA



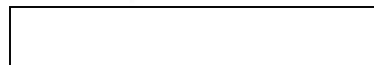
MAGNOLIOPSIDA



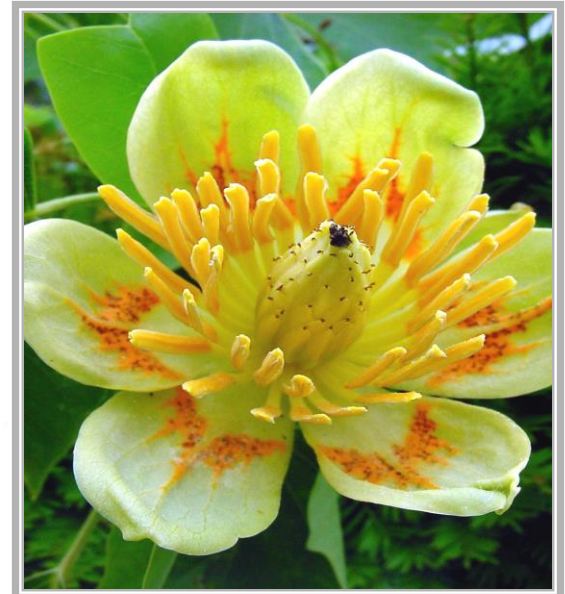
MAGNOLIALES



TULIP POPLAR



RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



MAGNOLIALES



FAMILY



TULIP POPLAR



RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



MAGNOLIALES



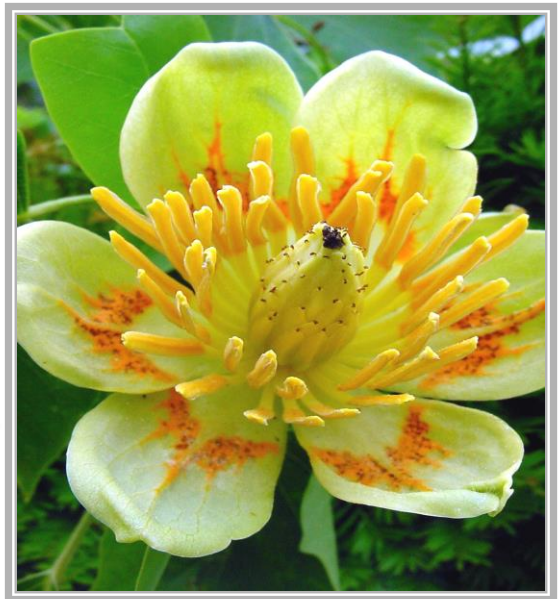
MAGNOLIACEAE



TULIP POPLAR



RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



MAGNOLIALES



MAGNOLIACEAE

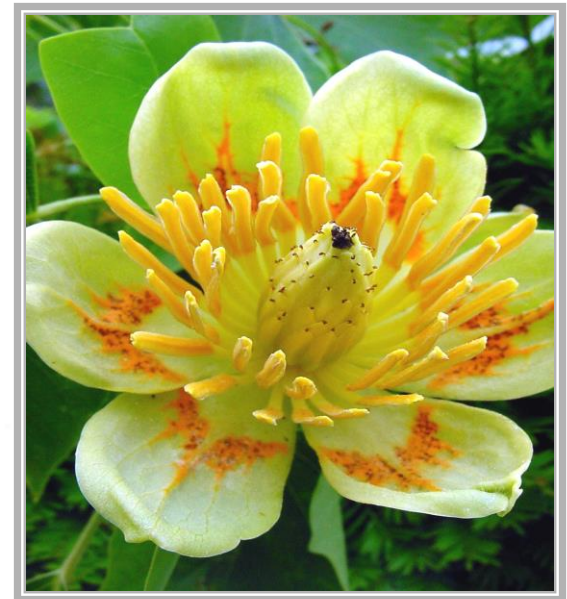


GENUS

TULIP POPLAR



RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



MAGNOLIALES



MAGNOLIACEAE

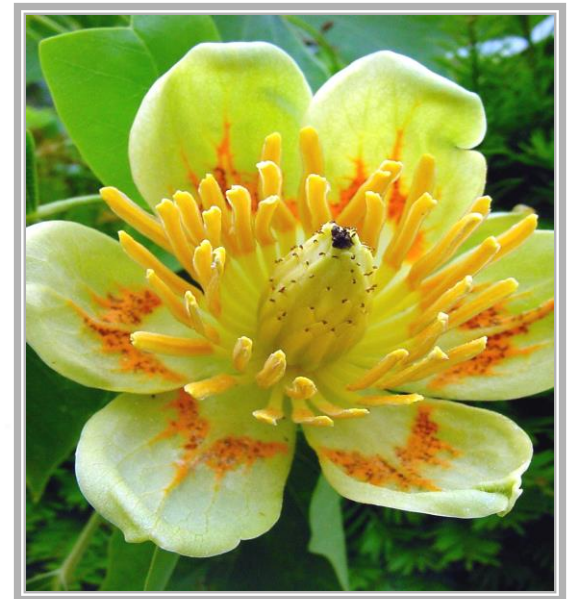


LIRIODENDRON

TULIP POPLAR



RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



MAGNOLIALES



MAGNOLIACEAE



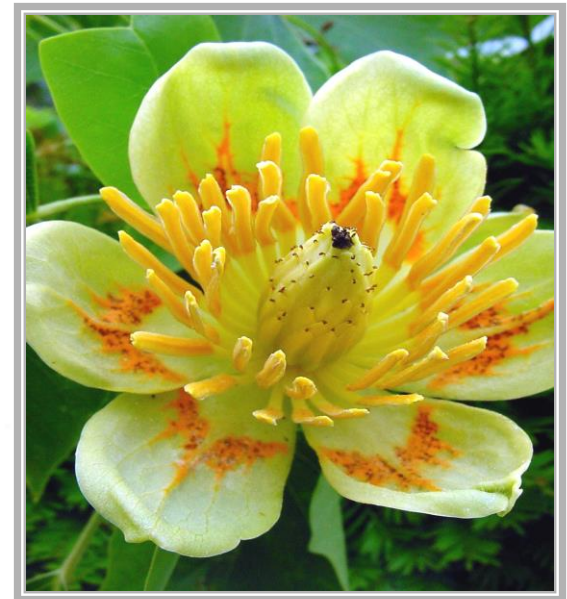
LIRIODENDRON

TULIP POPLAR



EPITHET

RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



MAGNOLIALES



MAGNOLIACEAE



LIRIODENDRON

TULIP POPLAR



TULIPIFERA



RED = STANDARD ENDING



LECTURE QUIZ

**GENERAL TAXONOMIC TERMS
&
TAXONOMIC HIERARCHY
STANDARD ENDINGS**

LECTURE QUIZ

**FORMAT
FILL IN
QUESTIONS**



LECTURE QUIZ

**MUST
SPELL CORRECTLY
FOR FULL CREDIT**



SEXUAL LIFE CYCLES

PLOIDY LEVEL

PLOIDY LEVEL



PLOIDY LEVEL

**NUMBER HOMOLOGOUS
CHROMOSOME SETS/CELL**

PLOIDY LEVEL

HOMOLOGOUS CHROMOSOME SETS



CELL

NUCLEUS

CYTOSOL

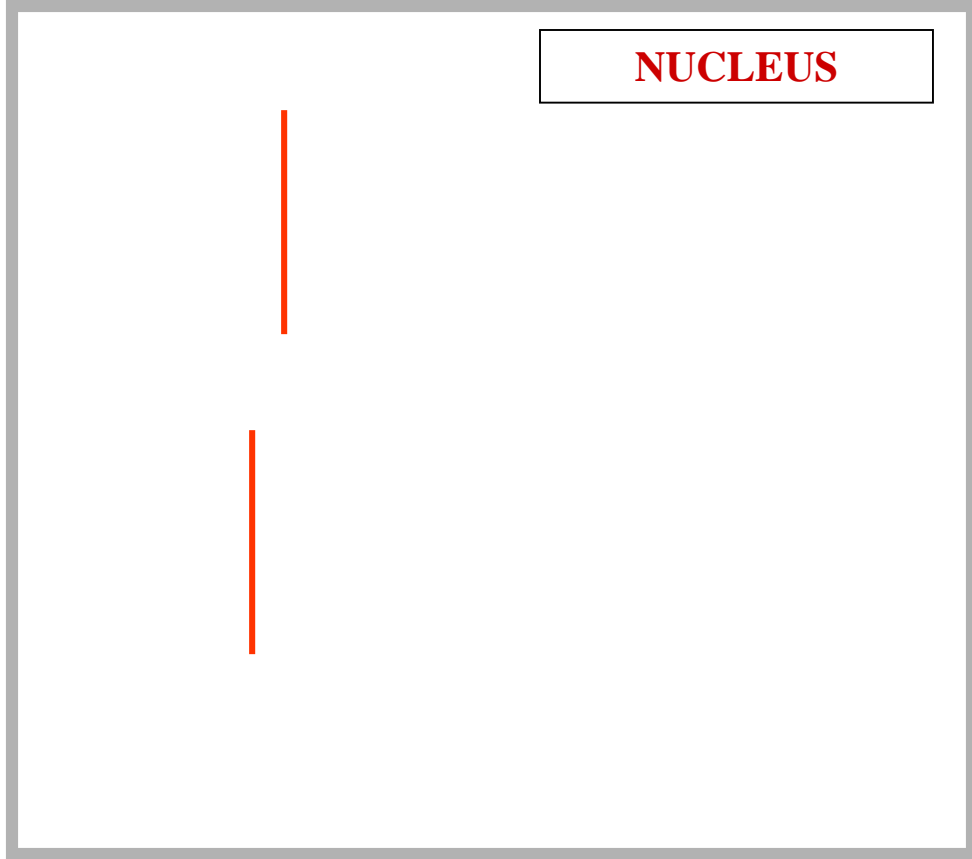
CYTOSOL

HOMOLOGOUS CHROMOSOMES SETS

HOMOLOGOUS CHROMOSOME SETS



CELL



NUCLEUS

CYTOSOL

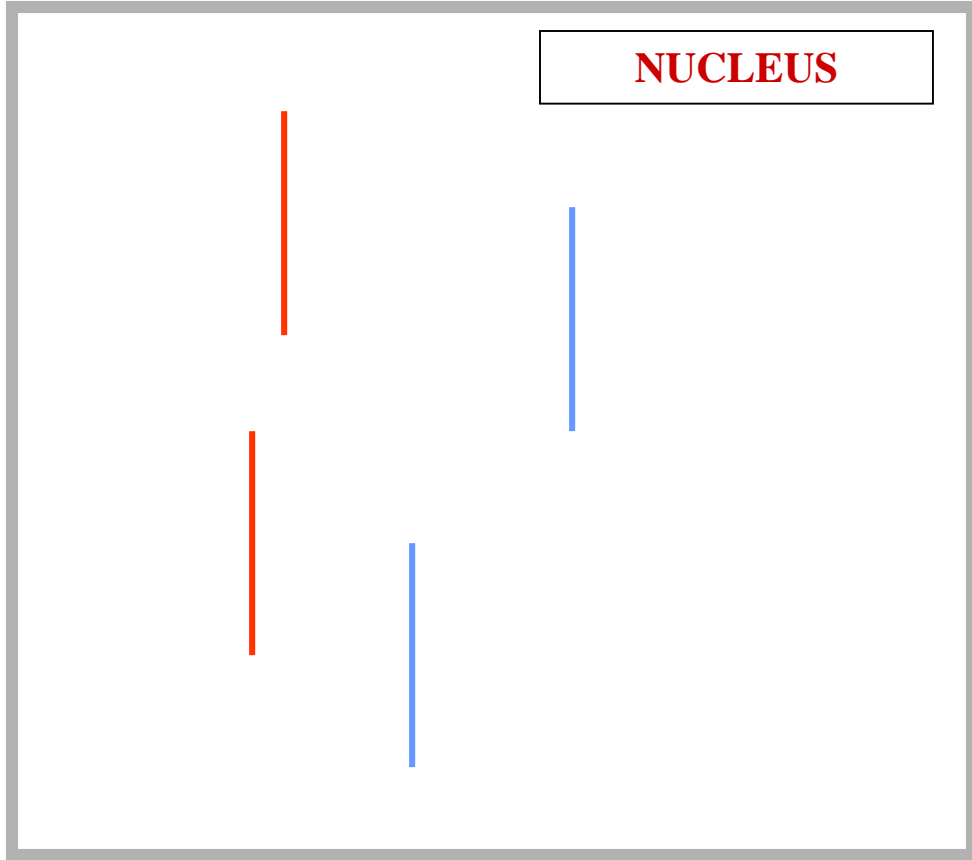
CYTOSOL

HOMOLOGOUS CHROMOSOMES SETS

HOMOLOGOUS CHROMOSOME SETS



CELL



CYTOSOL

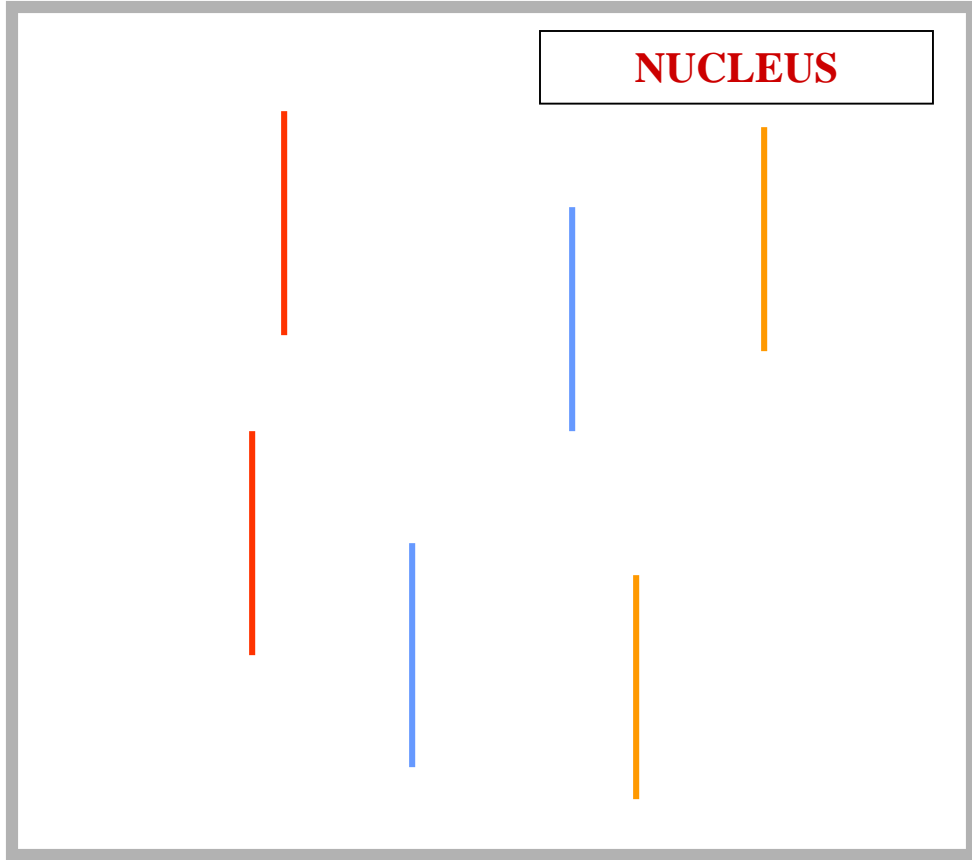
CYTOSOL

HOMOLOGOUS CHROMOSOMES SETS

HOMOLOGOUS CHROMOSOME SETS



CELL



HOMOLOGOUS CHROMOSOMES SETS

HOMOLOGOUS CHROMOSOME SETS P

CELL

NUCLEUS

M

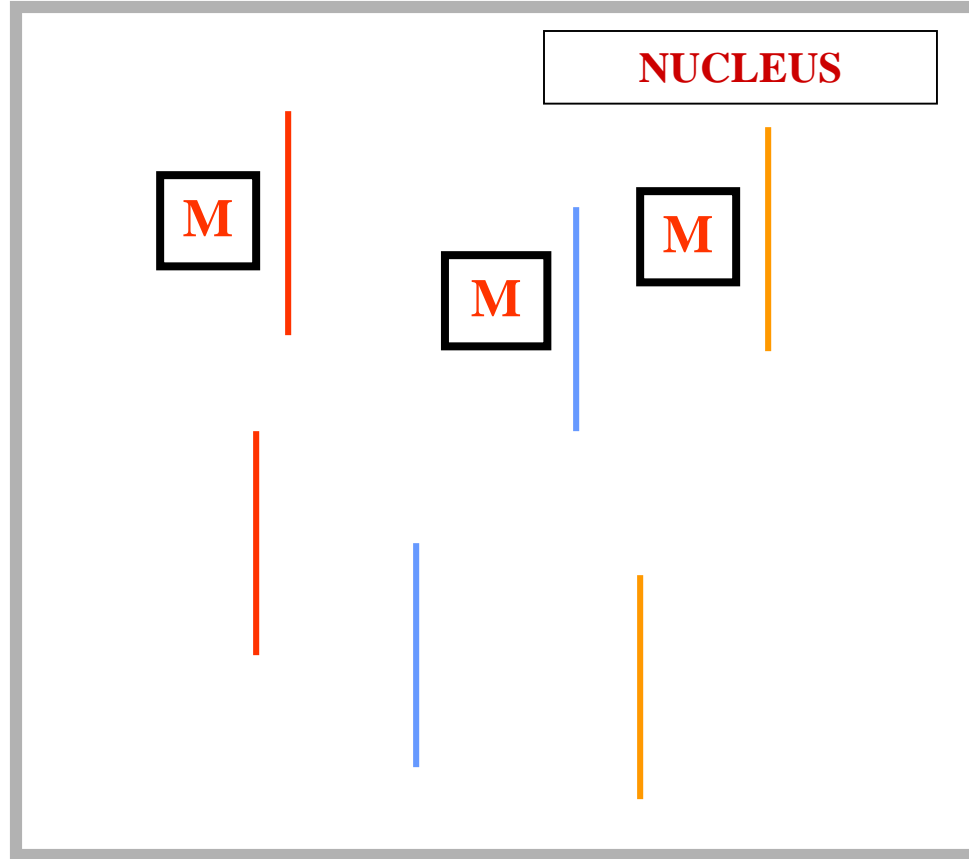
M

M

CYTOSOL

CYTOSOL

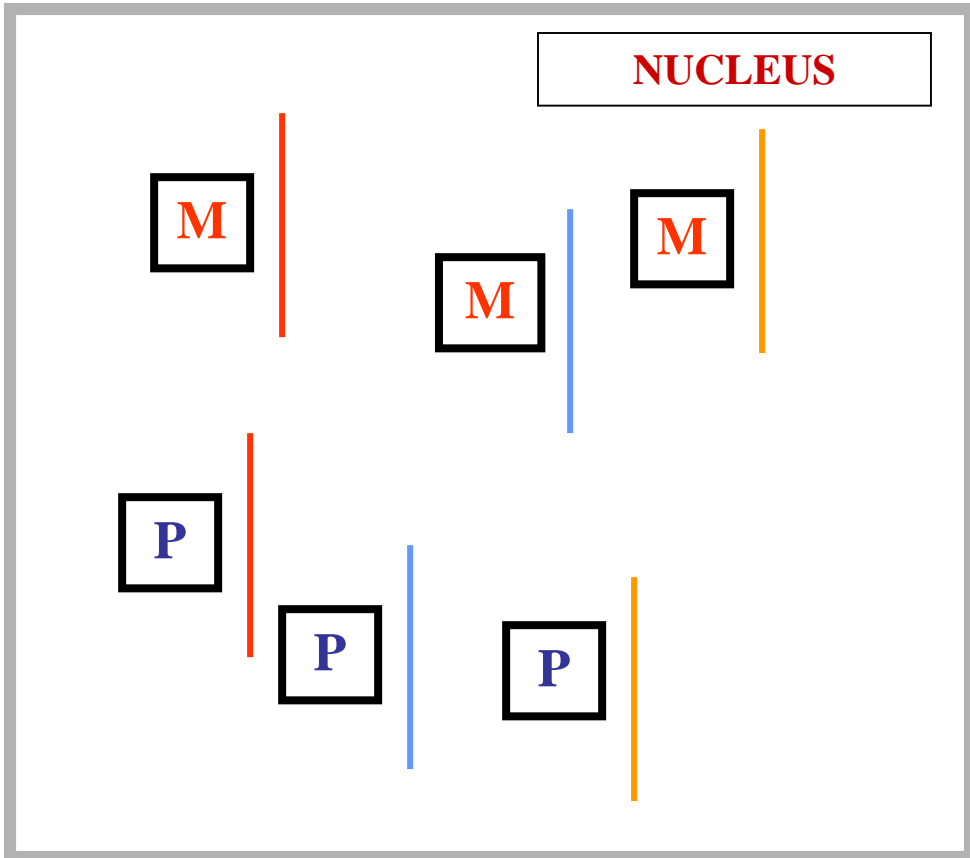
M = MATERNAL CHROMOSOME



HOMOLOGOUS CHROMOSOME SETS



CELL



CYTOSOL

CYTOSOL

NUCLEUS

M

M

M

P

P

P

M = **MATERNAL CHROMOSOME**

P = **PATERNAL CHROMOSOME**

} **HOMOLOGOUS CHROMOSOMES**

DIPLOID CELL
VS
HAPLOID CELL

DIPLOID CELL



DIPLOID CELL

**2 HOMOLOGOUS
CHROMOSOME SETS/CELL**

DIPLOID CELL

PLOIDY LEVEL

CELL

NUCLEUS

CYTOSOL

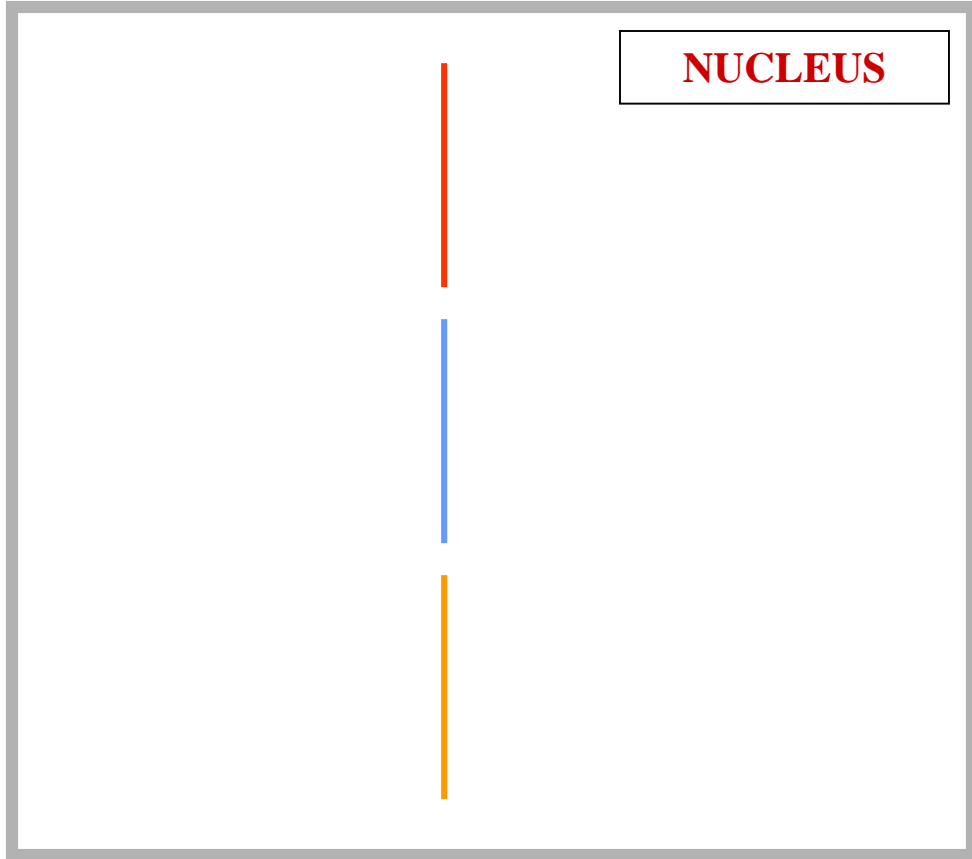
CYTOSOL



PLOIDY LEVEL

PLOIDY LEVEL

CELL



NUCLEUS

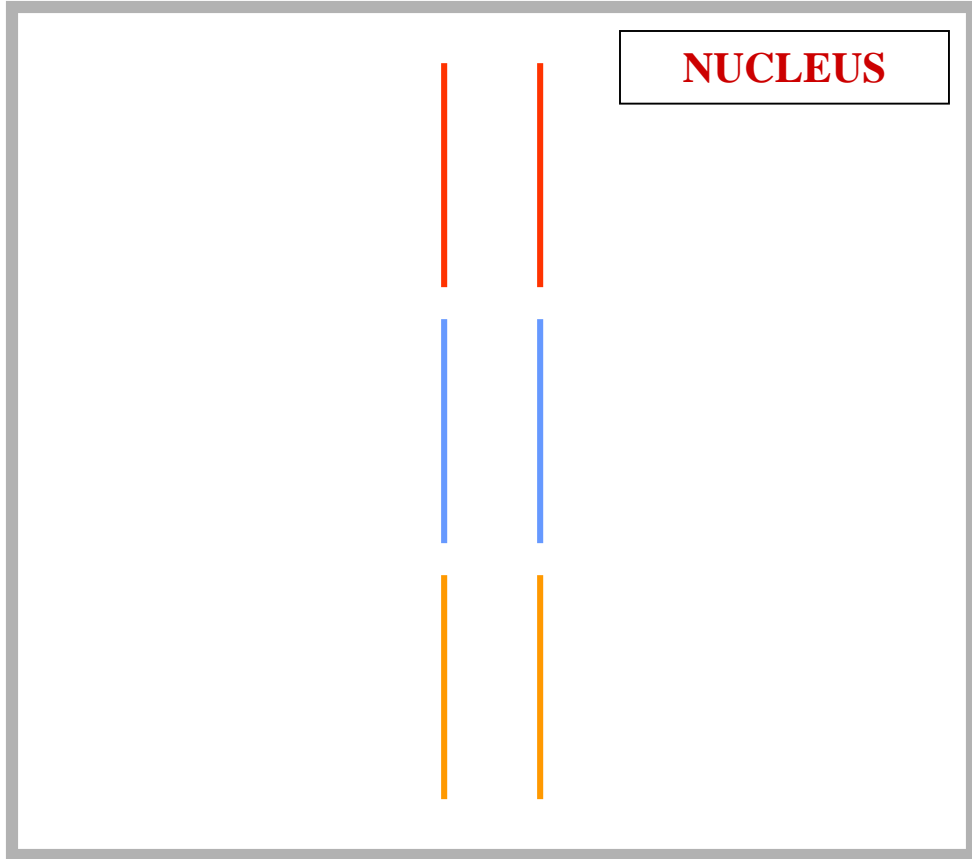
CYTOSOL

CYTOSOL

PLOIDY LEVEL

PLOIDY LEVEL

CELL



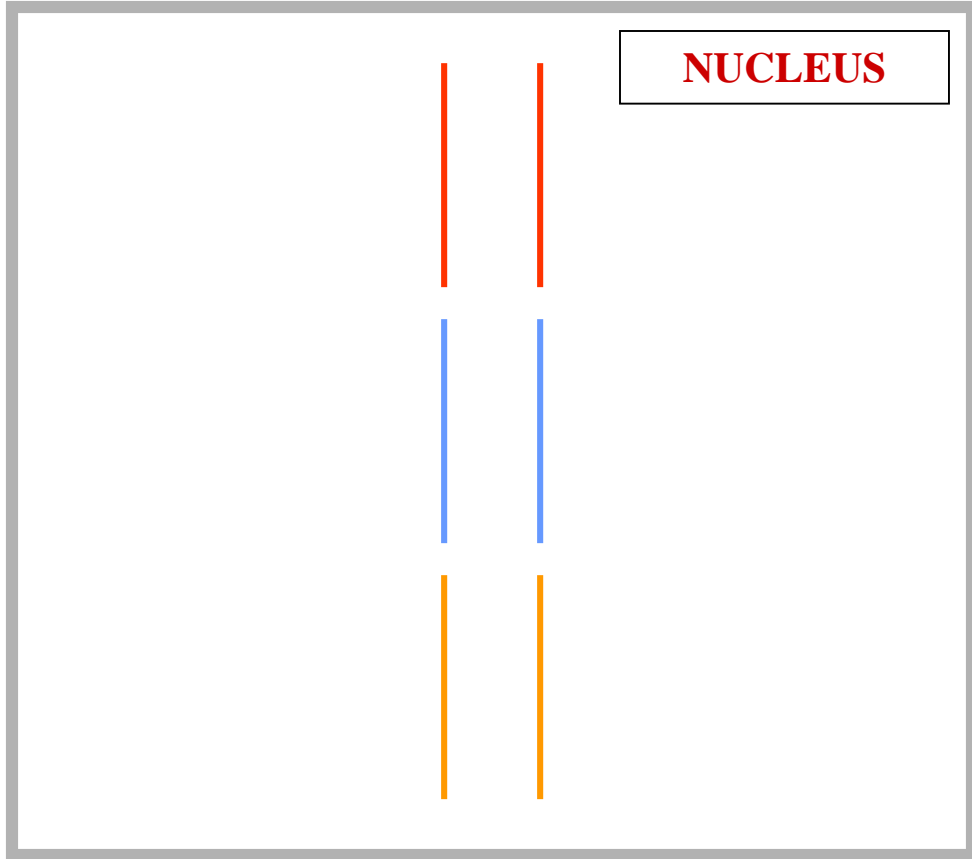
CYTOSOL

CYTOSOL

PLOIDY LEVEL

PLOIDY LEVEL

CELL



CYTOSOL

CYTOSOL

DIPLOID CELL

$$2N = 6$$

HAPLOID CELL



HAPLOID CELL

**1 HOMOLOGOUS
CHROMOSOME SET/CELL**

HAPLOID CELL

PLOIDY LEVEL

CELL

NUCLEUS

CYTOSOL

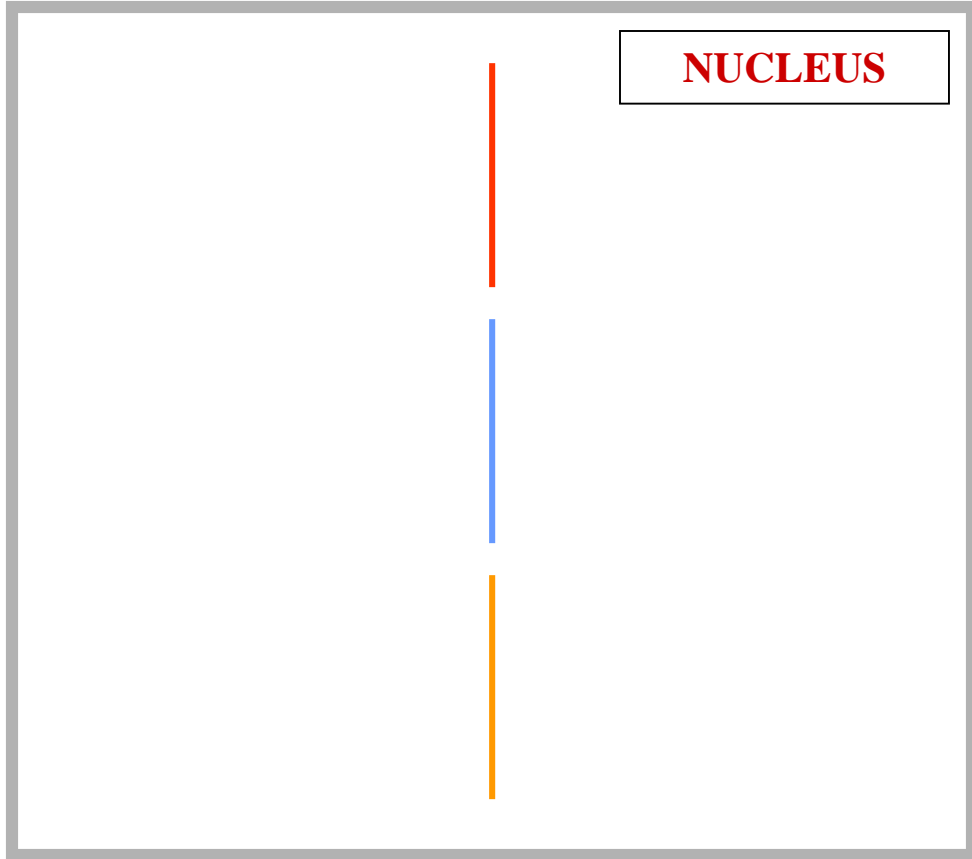
CYTOSOL



PLOIDY LEVEL

PLOIDY LEVEL

CELL



CYTOSOL

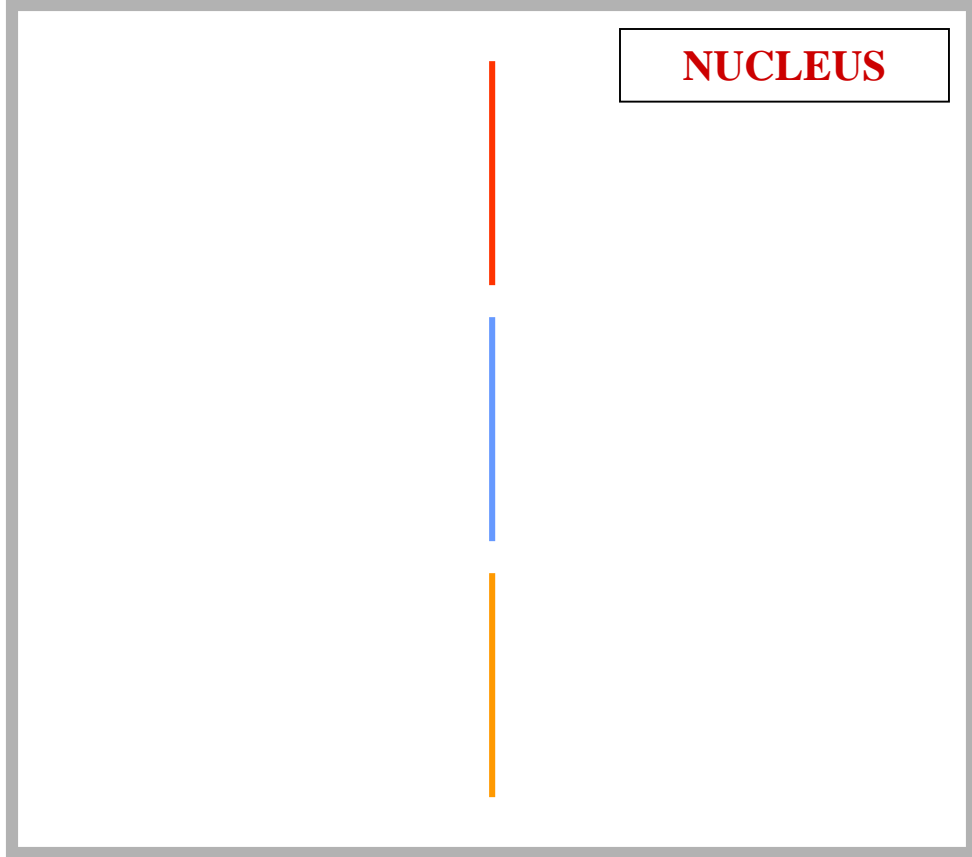
CYTOSOL

PLOIDY LEVEL



PLOIDY LEVEL

CELL



NUCLEUS

CYTOSOL

CYTOSOL

HAPLOID CELL

$$1N = 3$$

MITOSIS
VS
MEIOSIS



MITOSIS

QUESTION

DURING MITOSIS DOES
CHROMOSOME
NUMBER
REDUCTION OCCUR?

QUESTION

ANSWER



NO

ANSWER

HUMAN GENOME

#



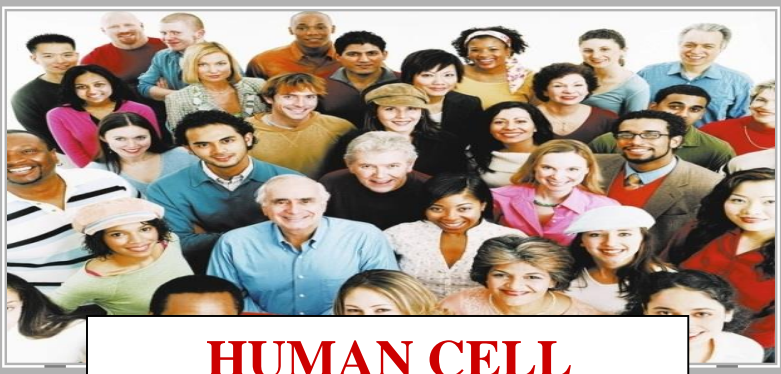
HOMO SAPIENS

HUMAN GENOME

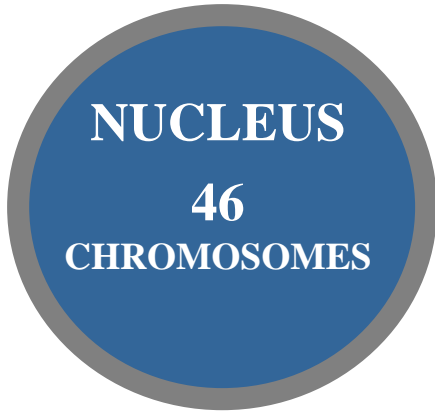


HOMO SAPIENS

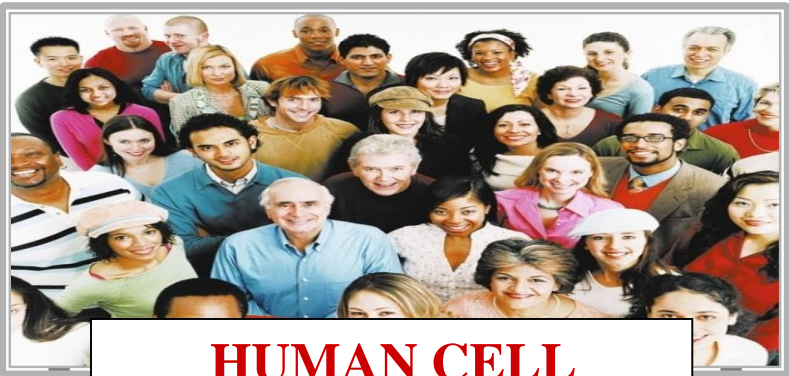




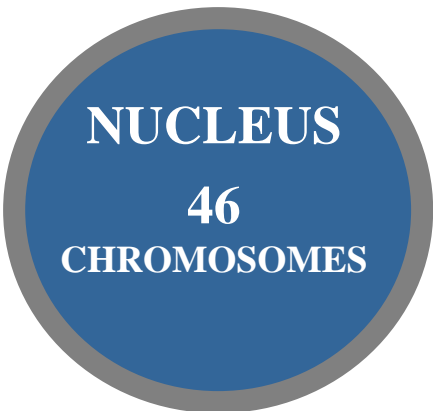
HUMAN CELL



HUMAN CELL

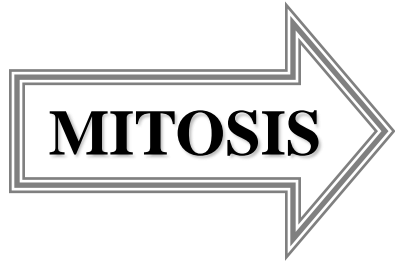


HUMAN CELL



**NO CHROMOSOME
REDUCTION**

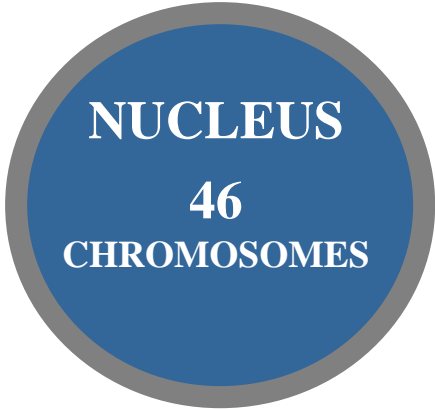
HUMAN CELL



MITOSIS

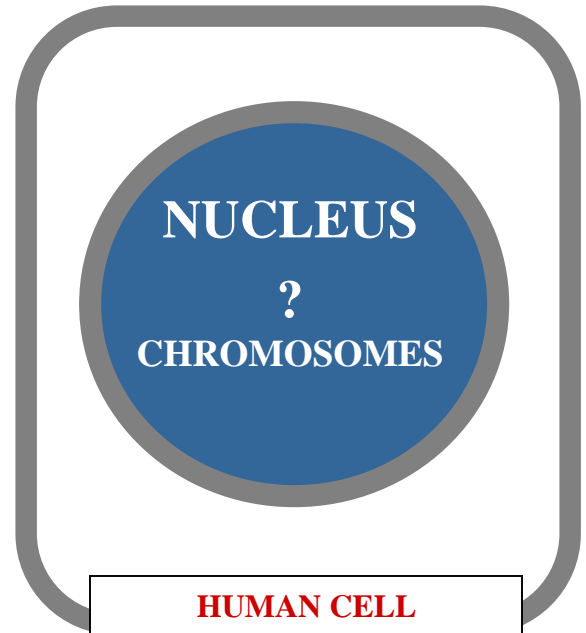
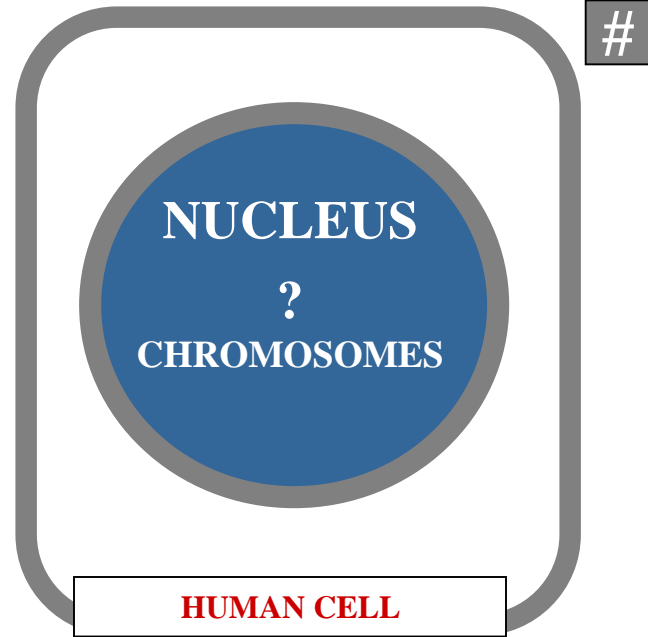
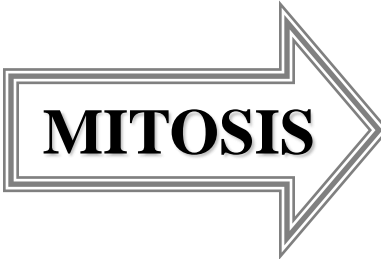


HUMAN CELL



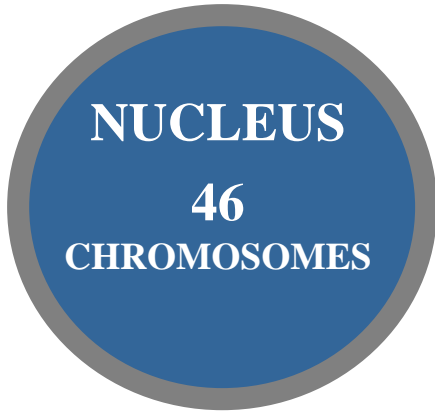
**NO CHROMOSOME
REDUCTION**

HUMAN CELL



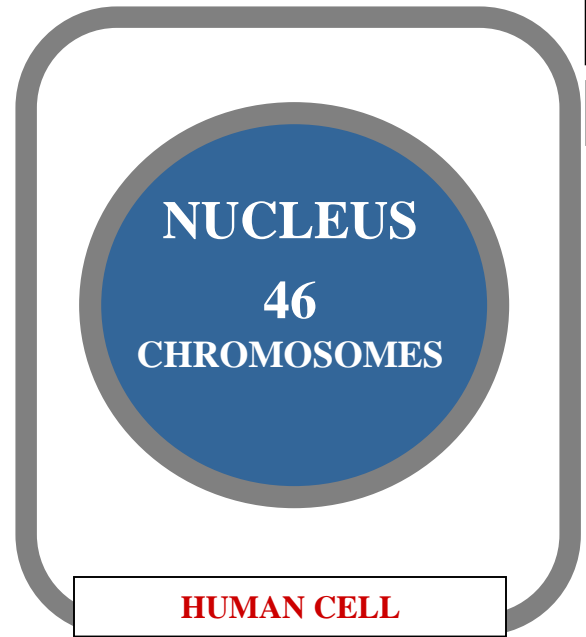
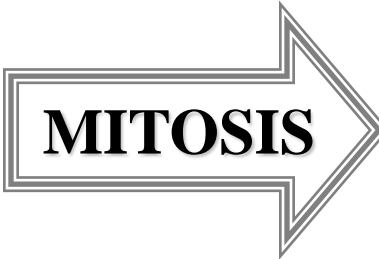


HUMAN CELL

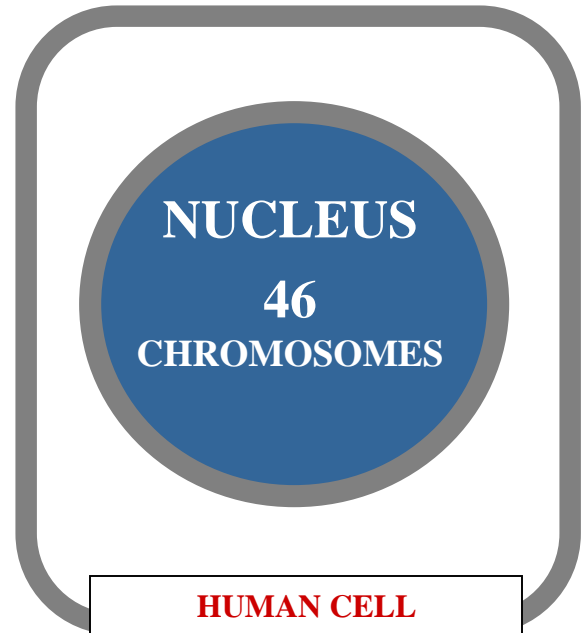


**NO CHROMOSOME
REDUCTION**

HUMAN CELL



^
M





MEIOSIS

QUESTION

DURING MEIOSIS DOES
CHROMOSOME
NUMBER
REDUCTION OCCUR?

QUESTION

ANSWER

YES

ANSWER

ANSWER

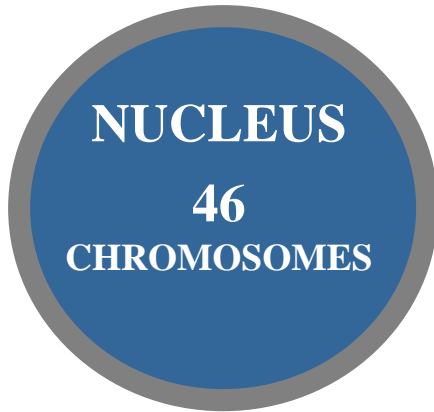


**DURING MEIOSIS
CHROMOSOME
NUMBER REDUCED
BY 1/2**

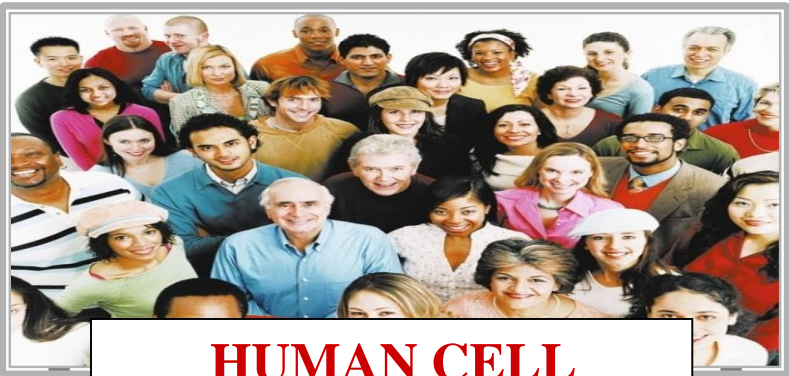
ANSWER



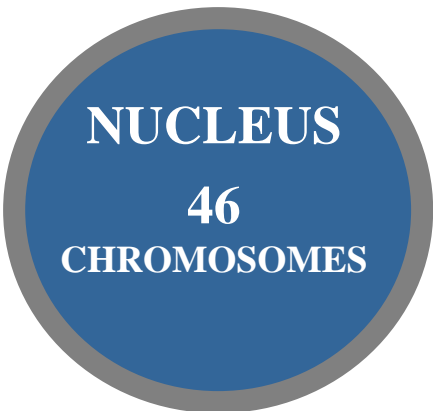
HUMAN CELL



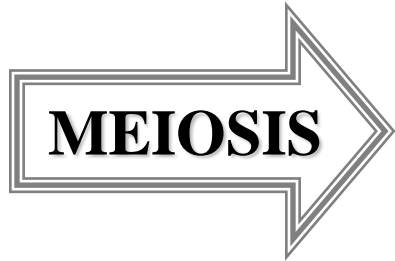
HUMAN CELL



HUMAN CELL



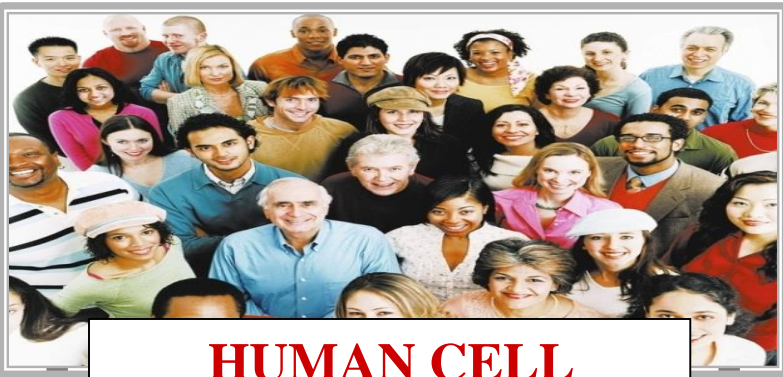
NUCLEUS
46
CHROMOSOMES



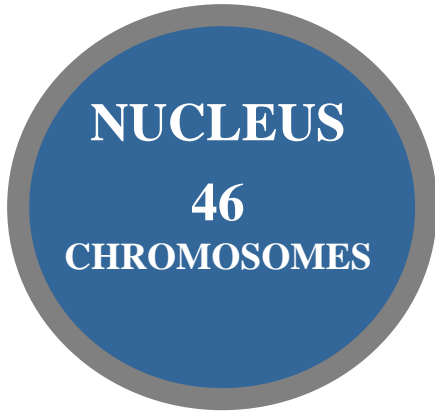
MEIOSIS

**YES CHROMOSOME
REDUCTION**

HUMAN CELL

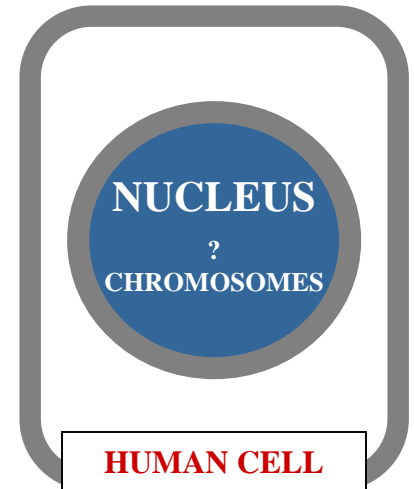
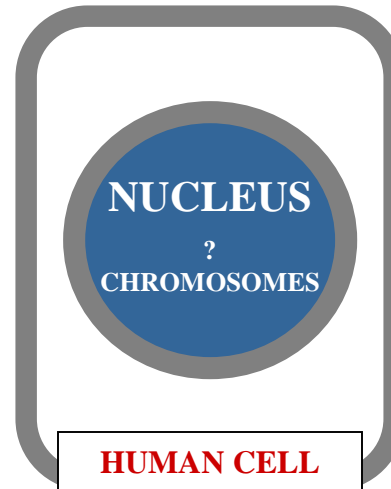
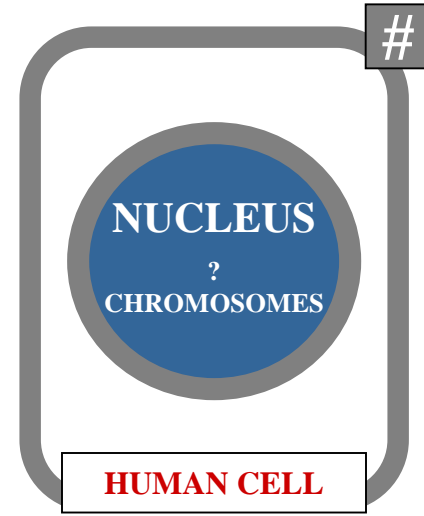
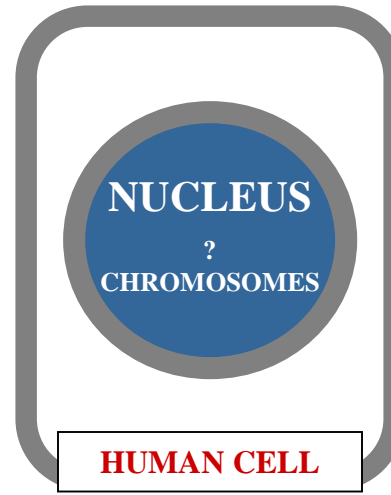
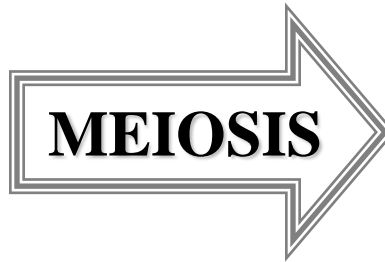


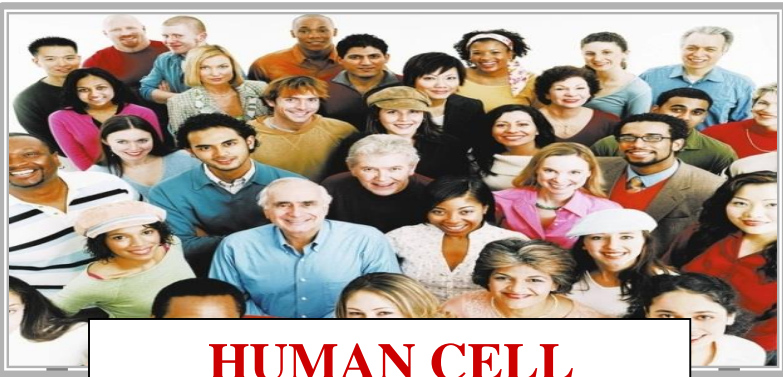
HUMAN CELL



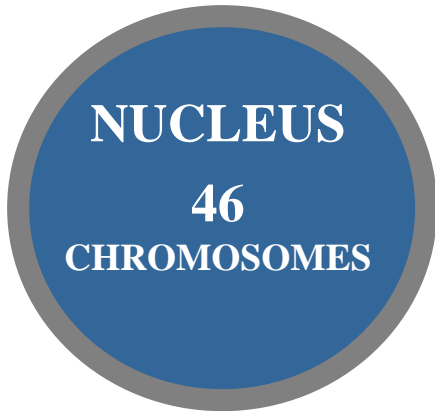
1/2 REDUCTION

HUMAN CELL



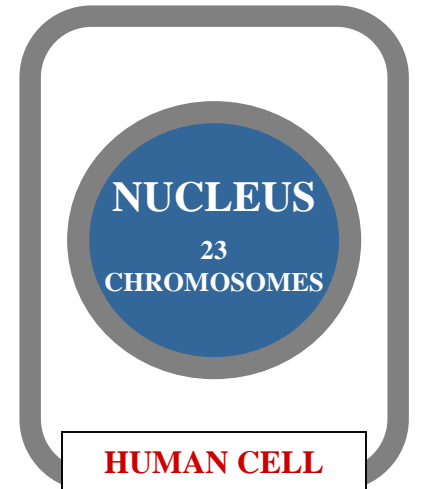
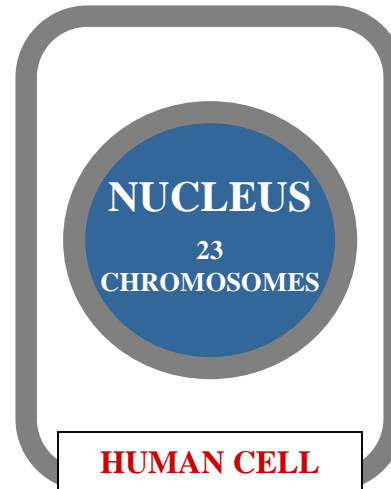
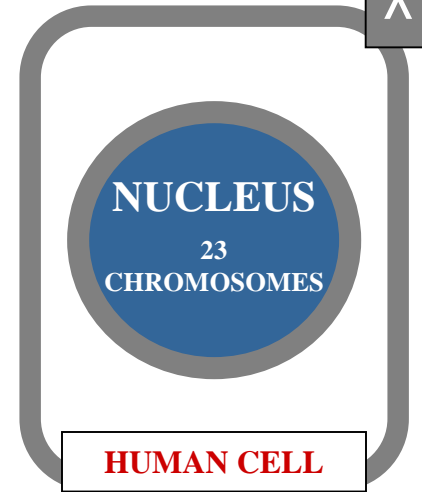
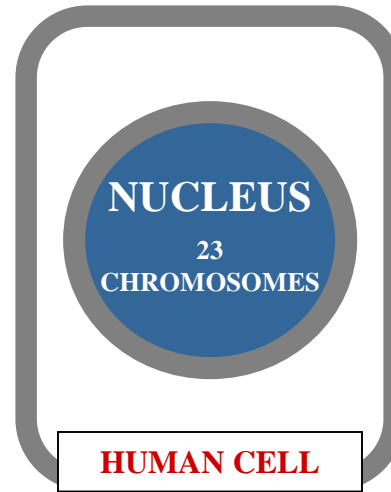
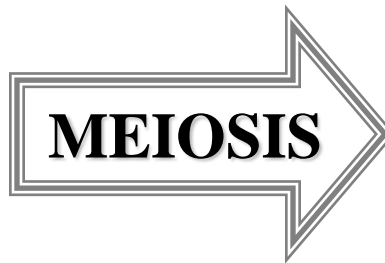


HUMAN CELL



1/2 REDUCTION

HUMAN CELL





MEIOSIS: APPLIED



ANIMAL LIFE CYCLE



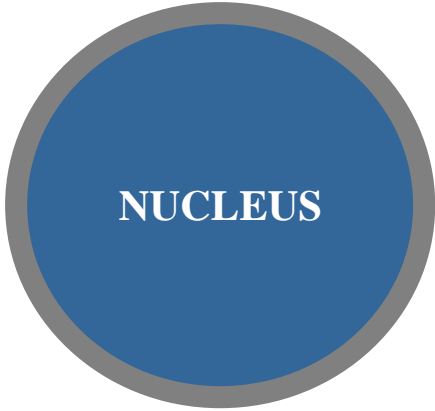
ANIMAL LIFE CYCLE





NUCLEUS

ANIMAL CELL



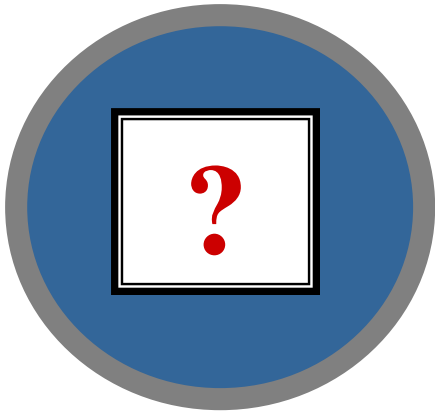
GERM CELL



NUCLEUS

GAMETOCYTE

GERM CELL



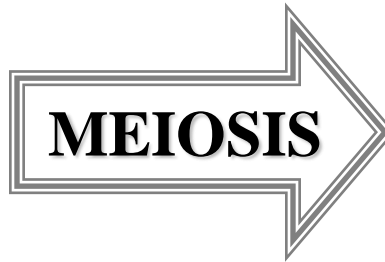
GAMETOCYTE

GERM CELL



GAMETOCYTE

GERM CELL



GAMETOCYTE

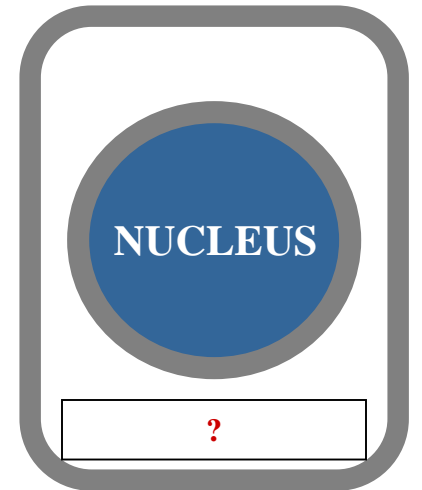
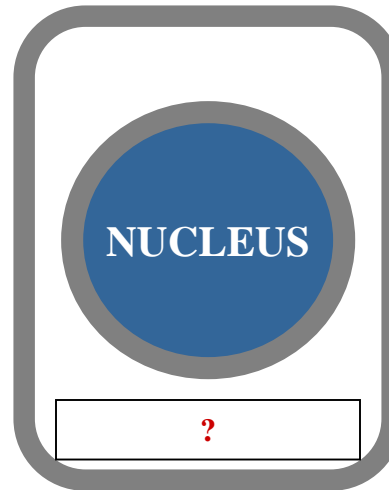
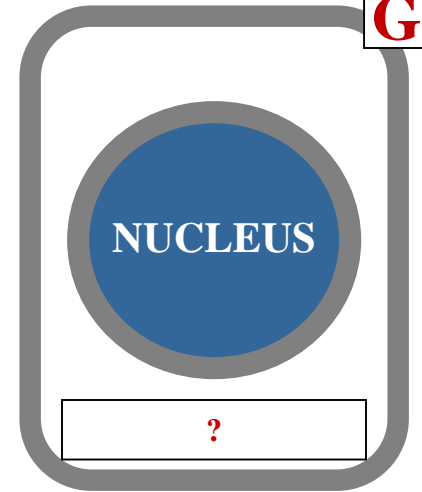
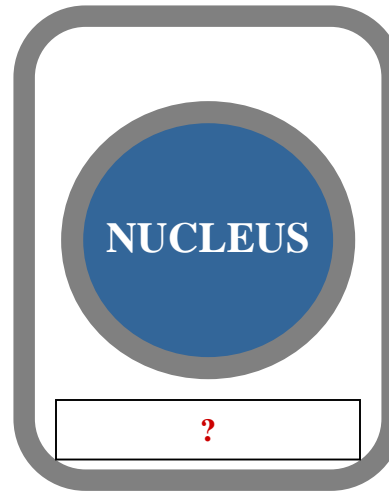
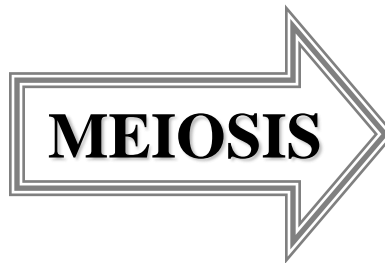
GERM CELL





GAMETOCYTE

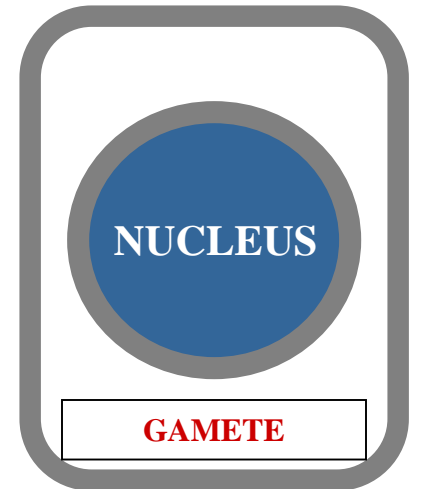
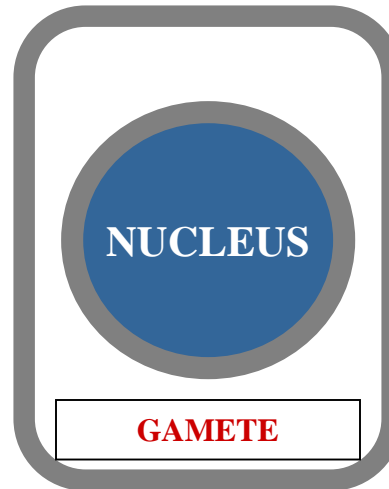
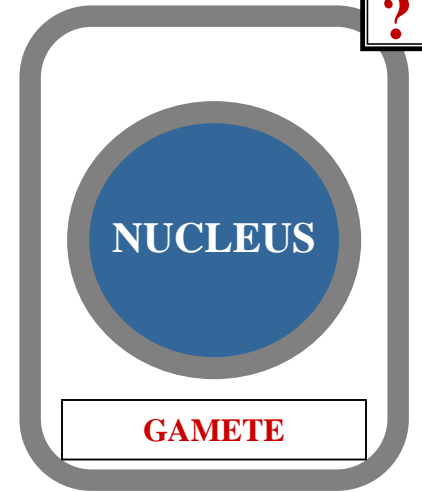
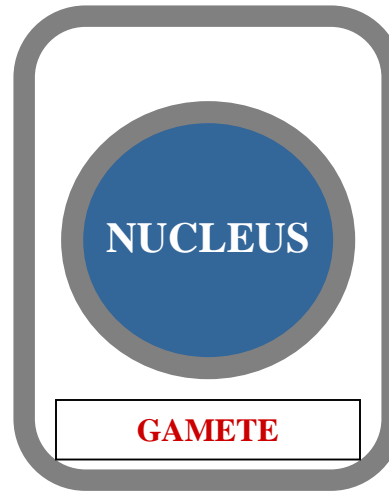
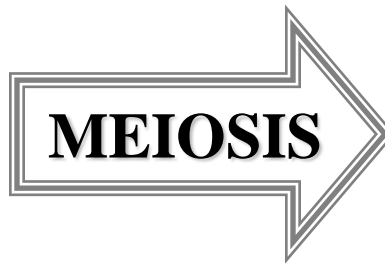
GERM CELL





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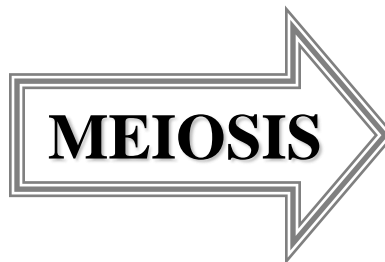
GERM CELL





GAMETOCYTE

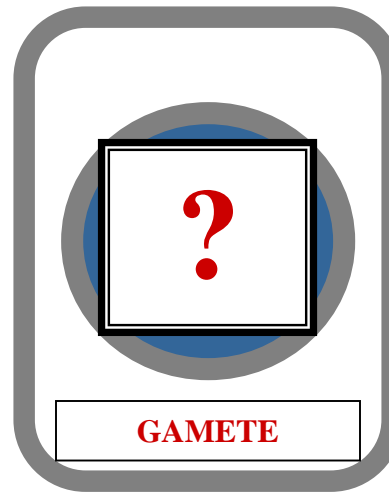
GERM CELL



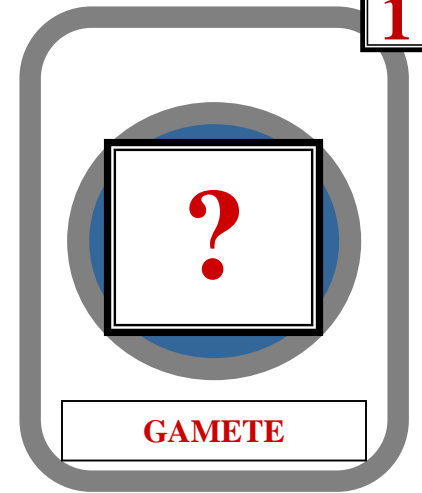
MEIOSIS



1/2 REDUCTION

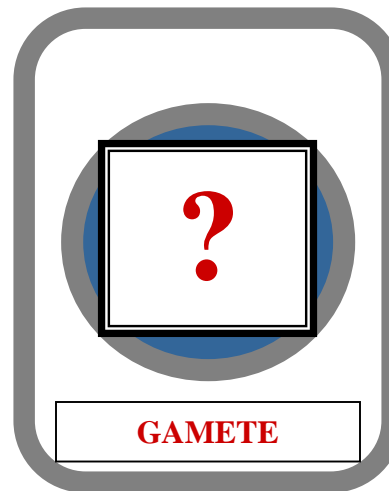


GAMETE

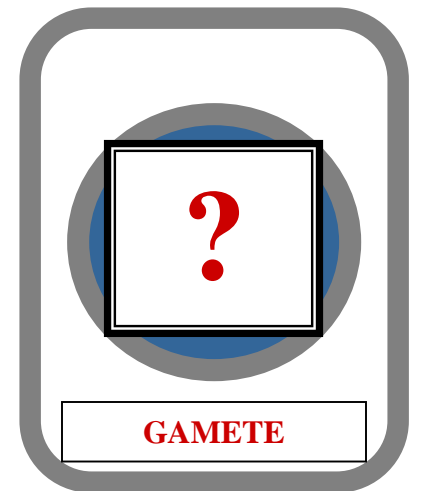


1

GAMETE



GAMETE

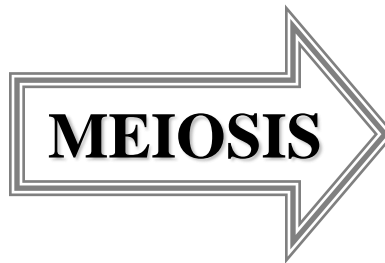


GAMETE



GAMETOCYTE

GERM CELL



1/2 REDUCTION



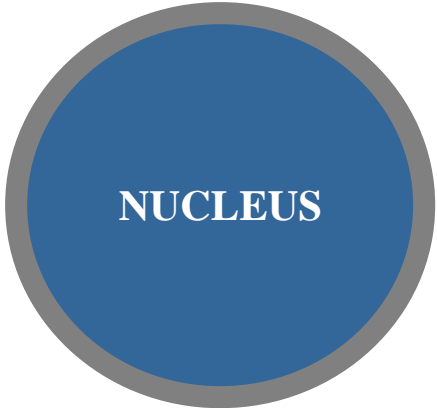


PLANT LIFE CYCLE

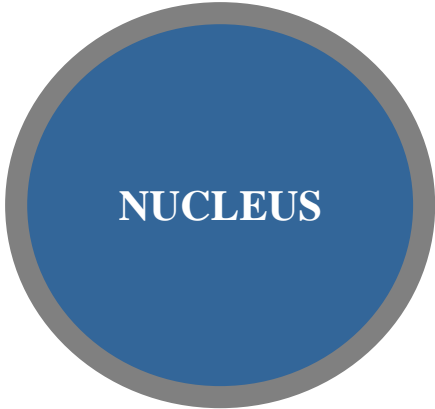


PLANT LIFE CYCLE

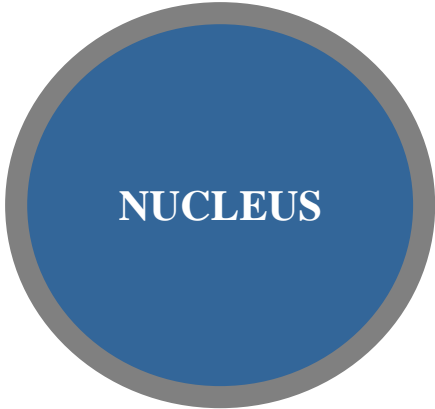




PLANT CELL

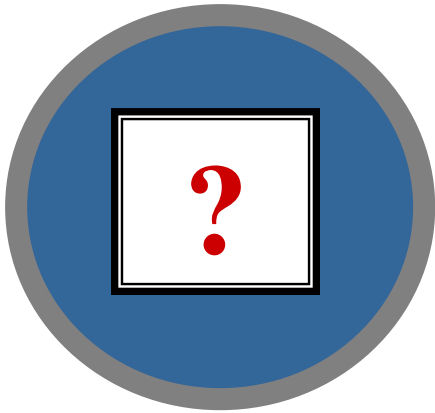


GERM CELL



SPOROCYTE

GERM CELL



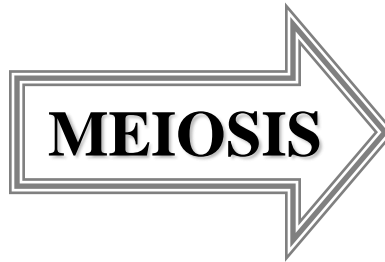
SPOROCYTE

GERM CELL



SPOROCYTE

GERM CELL



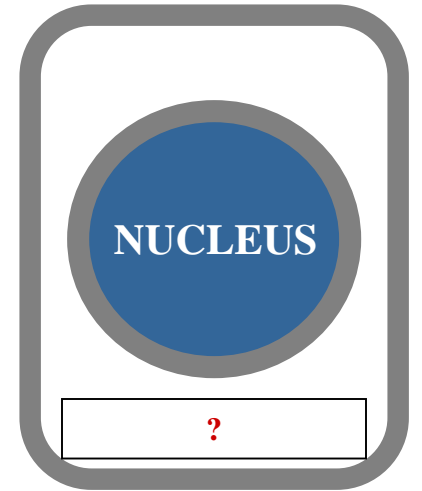
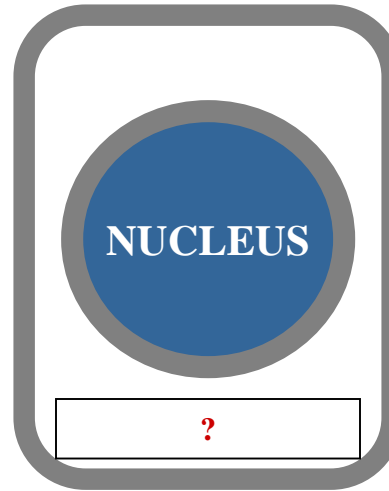
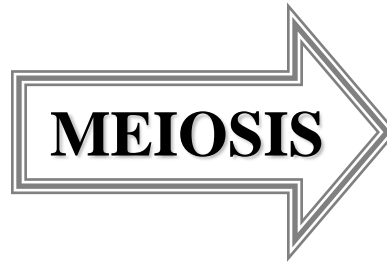
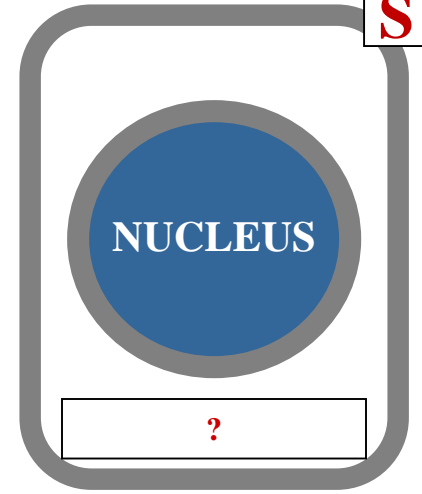
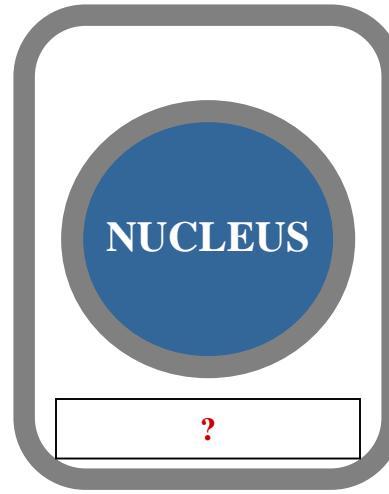
SPOROCYTE

GERM CELL



SPOROCTE

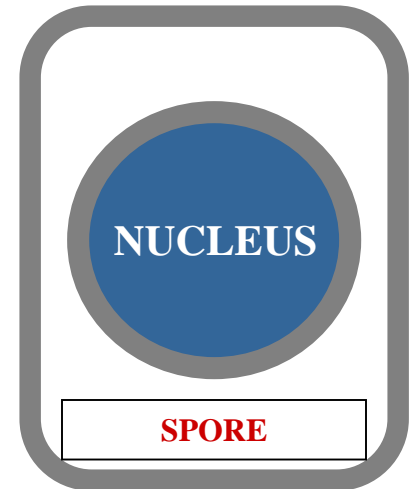
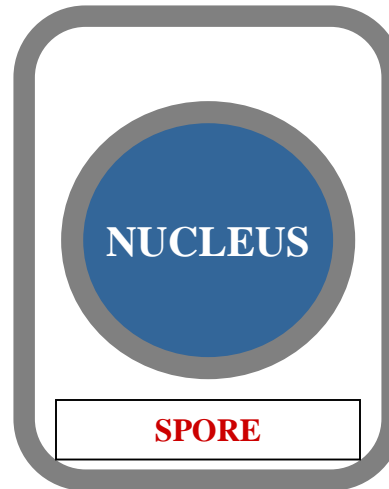
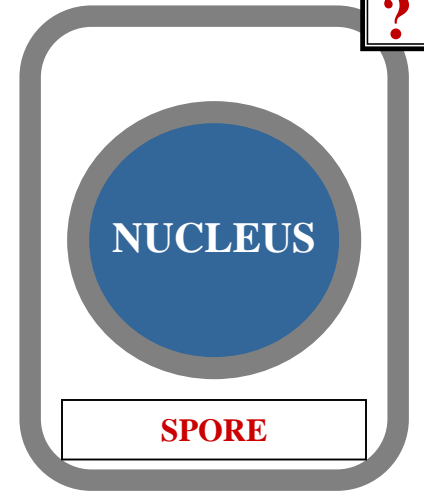
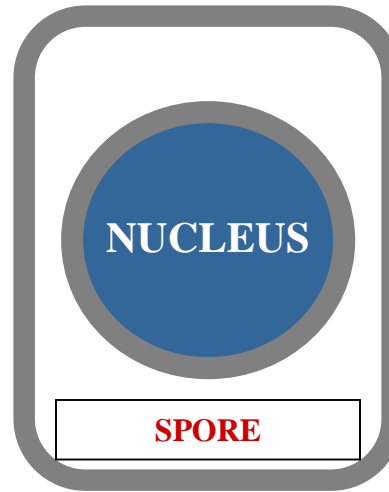
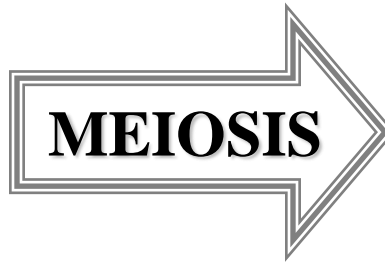
GERM CELL





SPOROCYTE

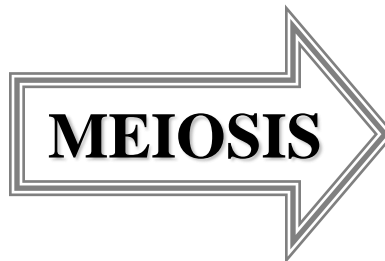
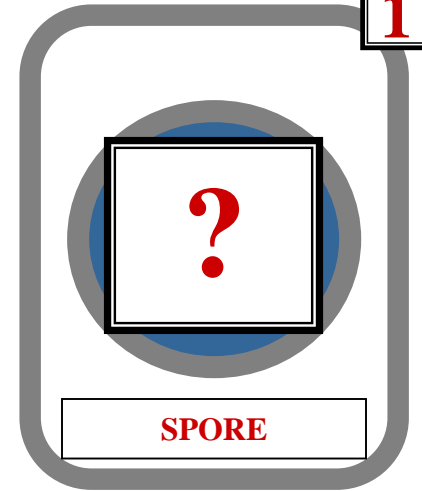
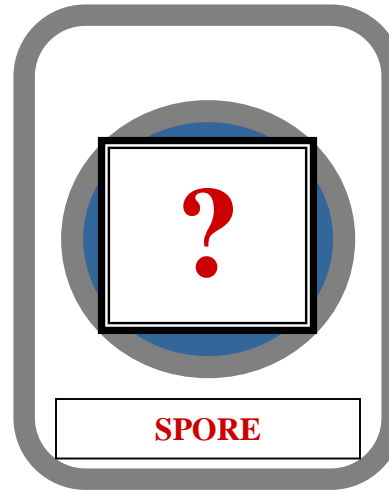
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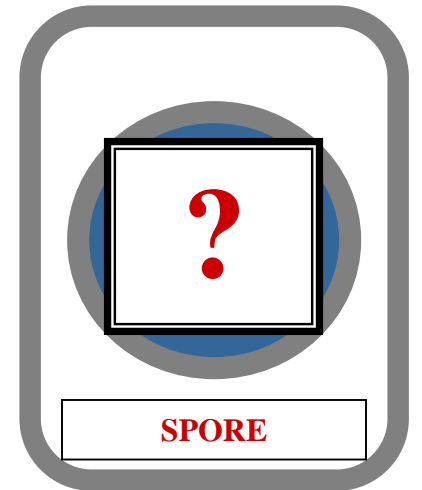
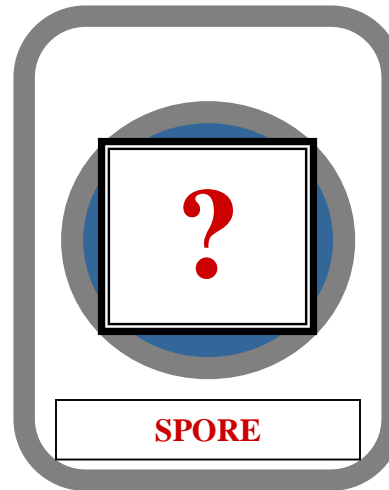


SPOROCYTE

GERM CELL



1/2 REDUCTION

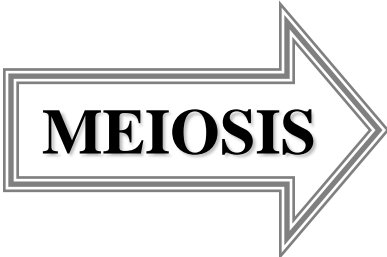




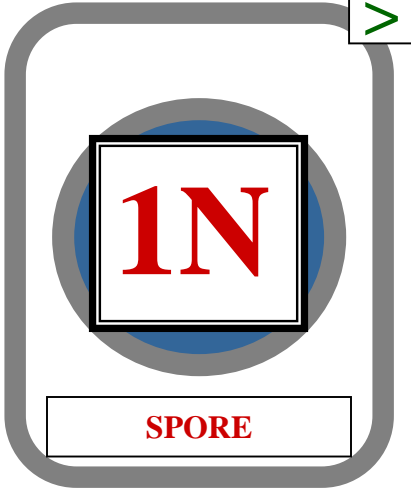
1/2 REDUCTION

SPOROCYTE

GERM CELL

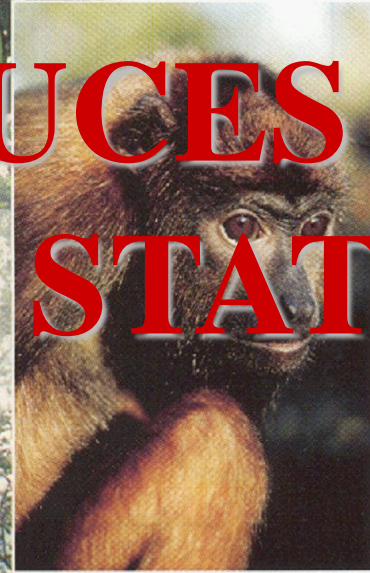


1/2 REDUCTION





SEXUAL LIFE CYCLES



MEIOSIS REDUCES
 $2N$ STATE TO $1N$ STATE



QUESTION

HOW IS THE HAPLOID
STATE RESTORED TO
THE DIPLOID STATE?

QUESTION



ANSWER

SYNGAMY

ANSWER

SYNGAMY