



DOMAIN

RANK

TAXON

EUBACTERIA

TAXON

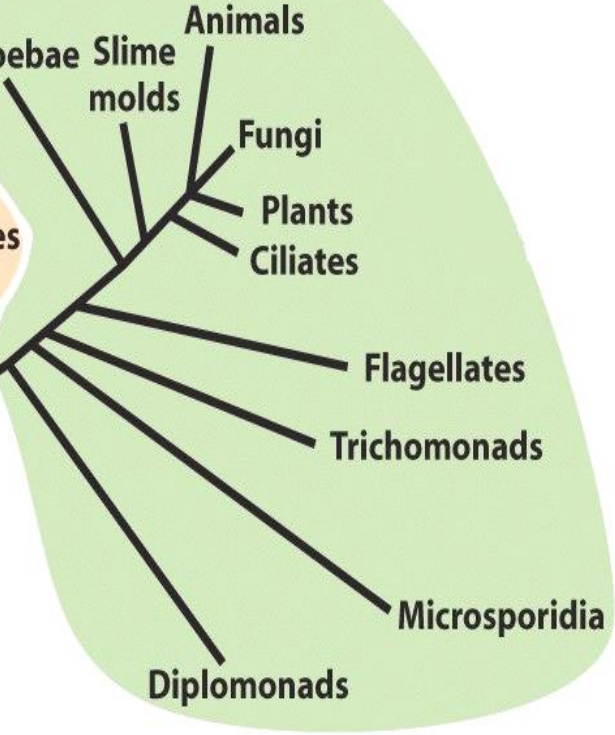
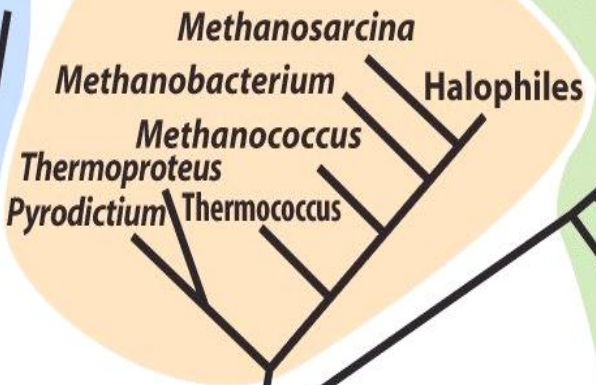
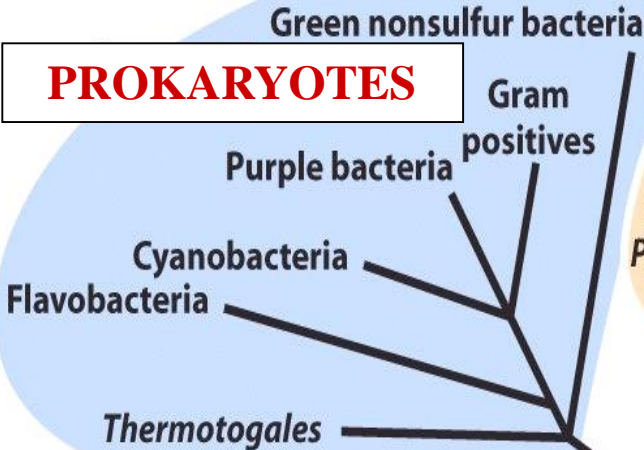
ARCHAEBACTERIA

TAXON

EUKARYA

PROKARYOTES

PROKARYOTES



PHYLOGENETIC TREE

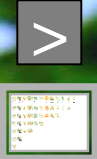
FIRST CELL

EUKARYOTES



TAXONOMIC HIERARCHY APPLIED

TULIP POPLAR





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



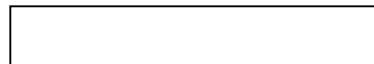
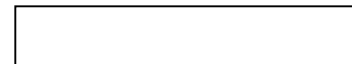
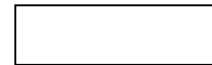
Pea



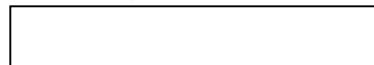
Corn



Grass



TULIP POPLAR



RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



DOMAIN



[Empty box]



[Empty box]



[Empty box]



[Empty box]



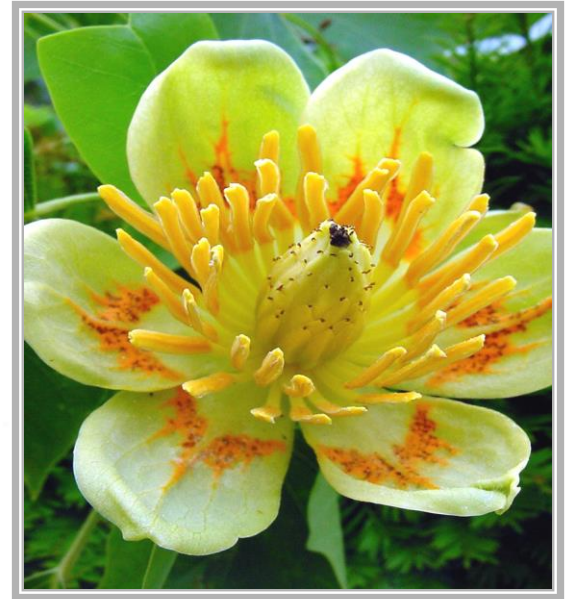
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TULIP POPLAR



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RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



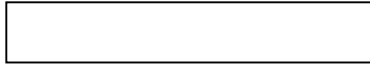
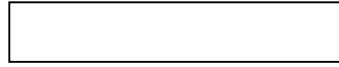
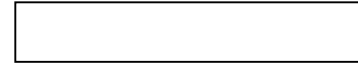
Corn



Grass



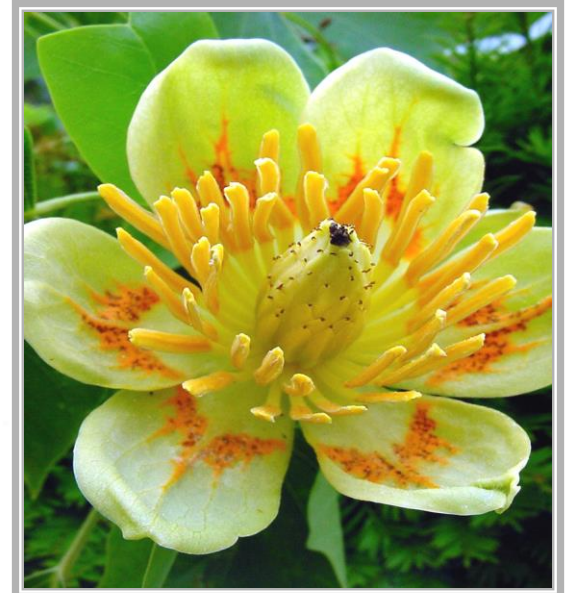
EUKARYA



TULIP POPLAR



RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



KINGDOM



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[Empty box]



[Empty box]



[Empty box]



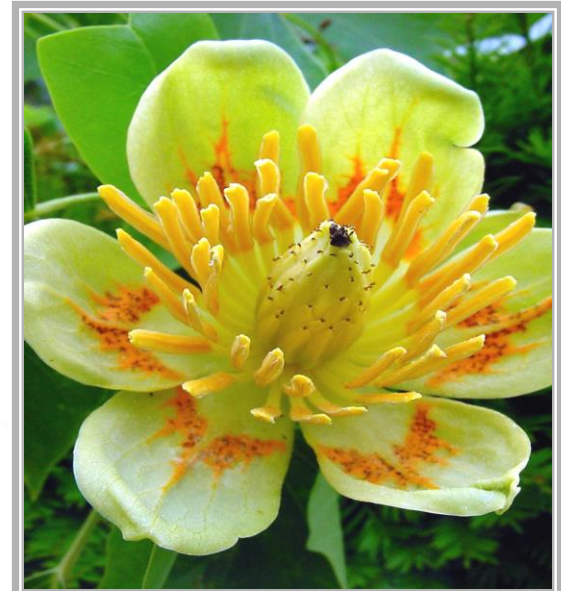
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TULIP POPLAR



[Empty box]

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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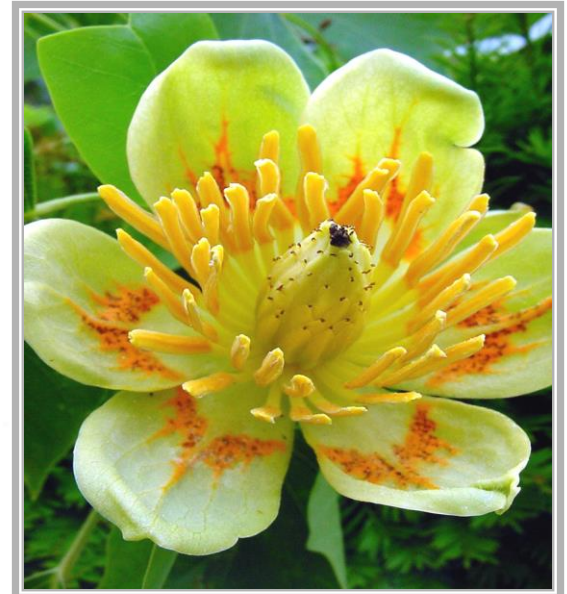
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TULIP POPLAR



[Empty box]

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]



[Empty box]



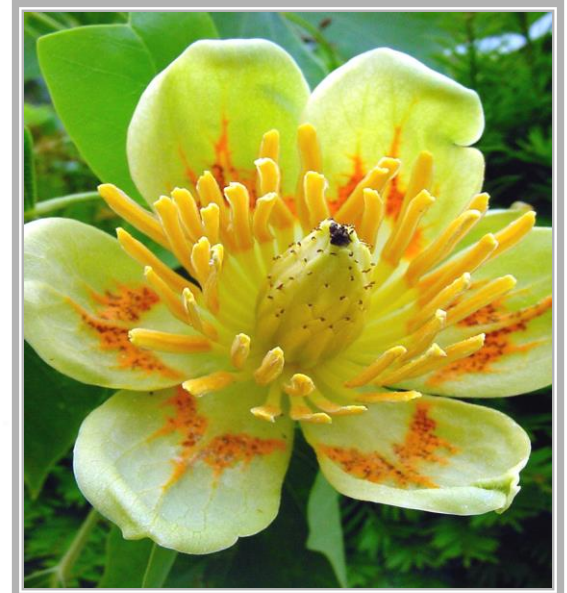
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TULIP POPLAR



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RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



CLASS



[]



[]



[]

TULIP POPLAR



[]

RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



[Empty box]



[Empty box]



[Empty box]

TULIP POPLAR



[Empty box]

RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



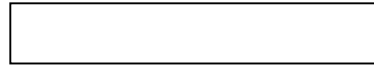
MAGNOLIOPHYTA



MAGNOLIOPSIDA



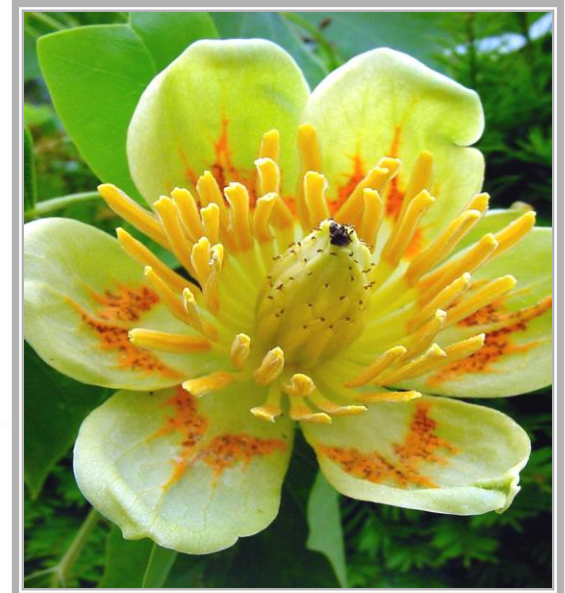
ORDER



TULIP POPLAR



RED = STANDARD ENDING





Common potato



Eggplant



Habanero pepper



Tomato



Morning glory



Sweet potato



Maple



Sunflower



Pea



Corn



Grass



PLANTAE



MAGNOLIOPHYTA



MAGNOLIOPSIDA



MAGNOLIALES



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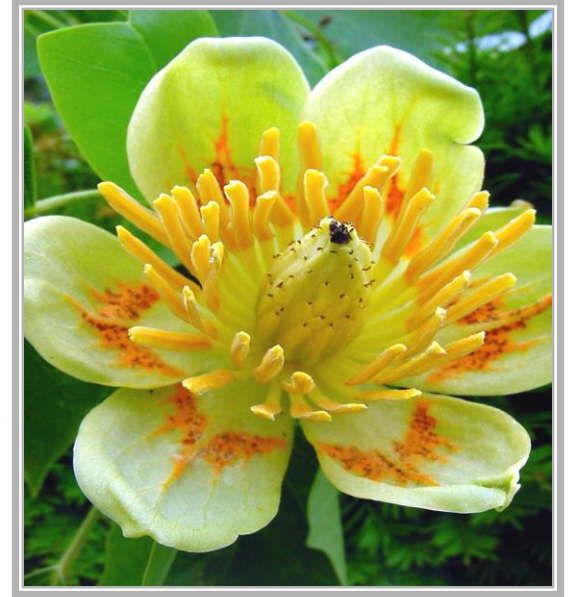
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TULIP POPLAR



[Empty box]

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



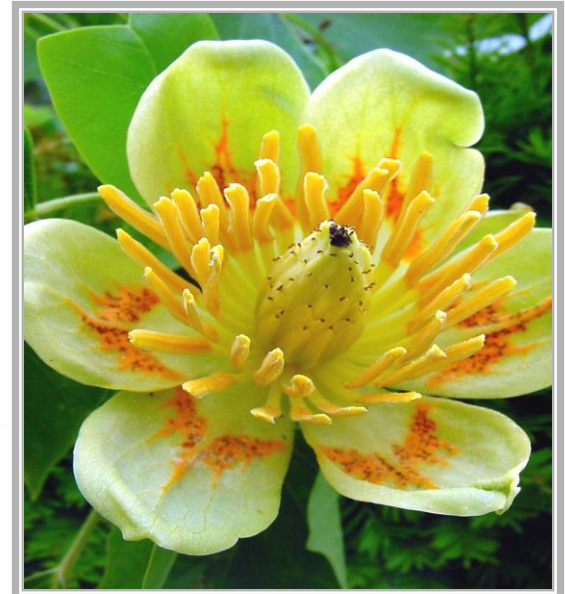
MAGNOLIACEAE



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

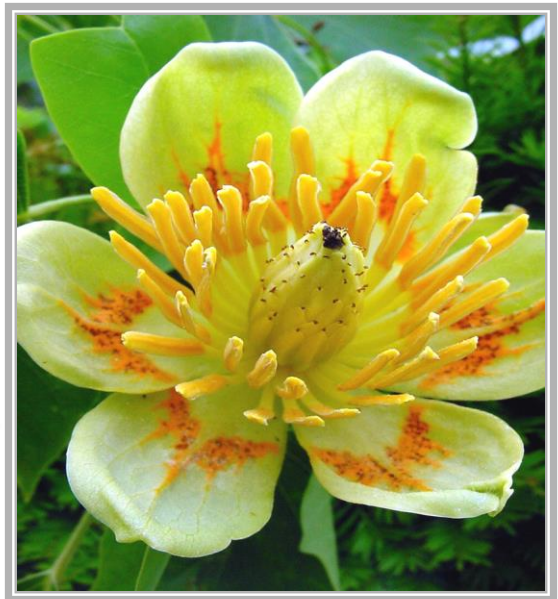


LIRIODENDRON

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

**HIGHER RANKS
MORE
INCLUSIVE**





LECTURE QUIZ

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



LECTURE QUIZ

**FORMAT
FILL IN
QUESTIONS**



LECTURE QUIZ

**MUST
SPELL CORRECTLY
FOR FULL CREDIT**



LECTURE QUIZ

**20 SECONDS
ANSWER
QUESTIONS**

LECTURE QUIZ

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

**FAMILY
NON-ACEAE
SYNONYMS**



CARROT FAMILY



APIACEAE = UMBELLIFERAE



PALM FAMILY



ARECACEAE = PALMAE



DAISY FAMILY



ASTERACEAE = COMPOSITAE



MUSTARD FAMILY



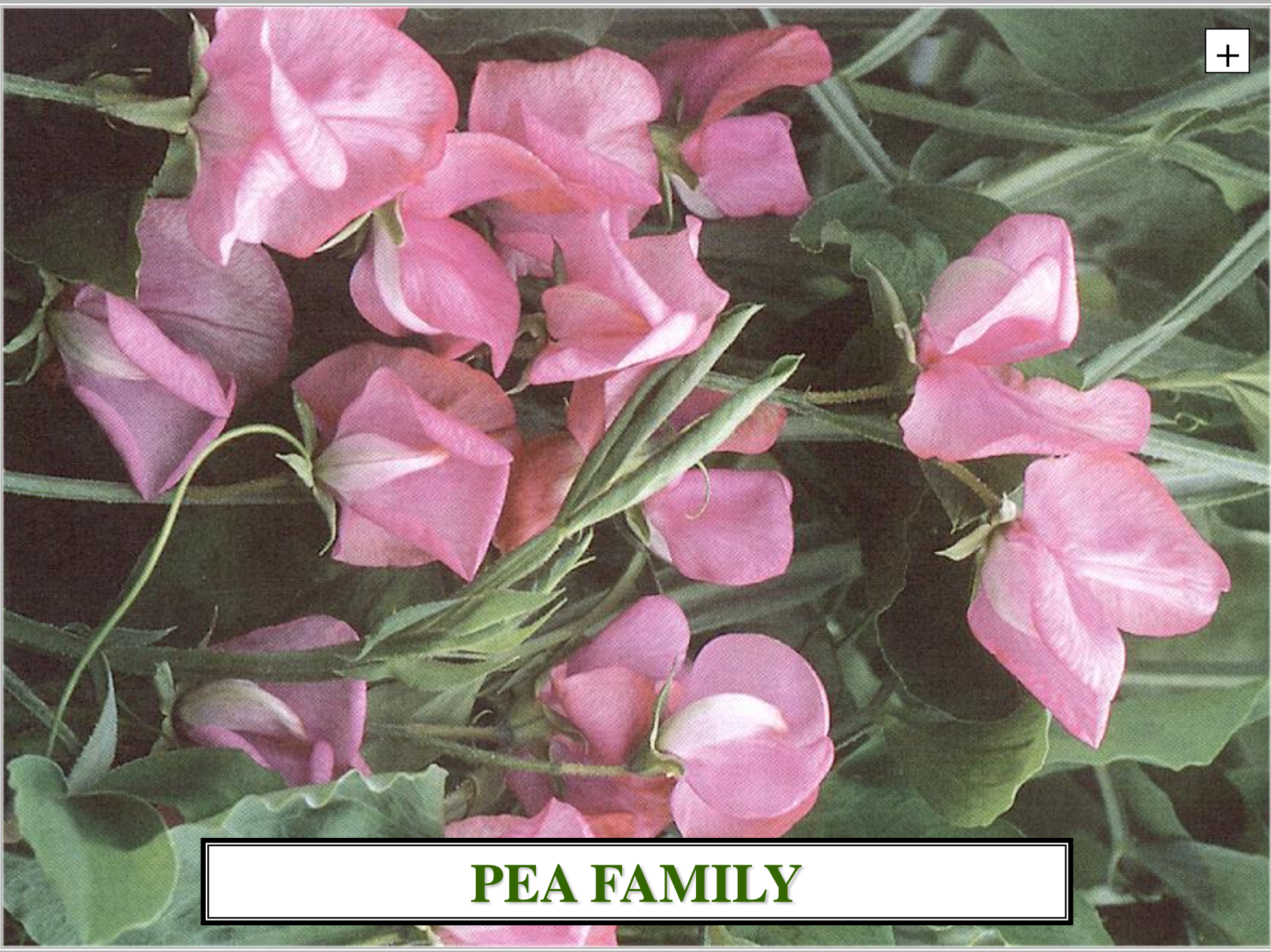
BRASSICACEAE = CRUCIFERAE



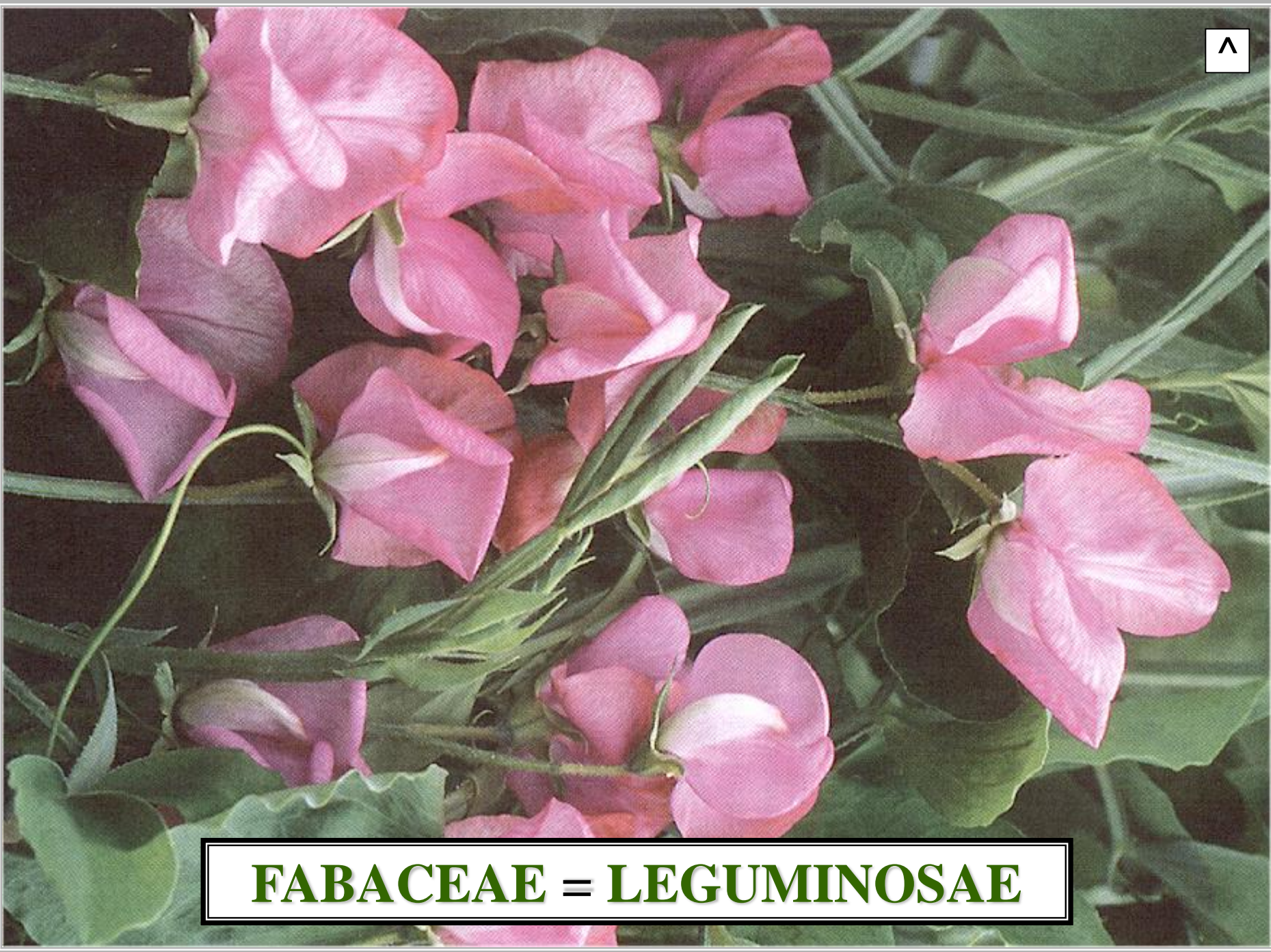
ST. JOHN'S WORT FAMILY



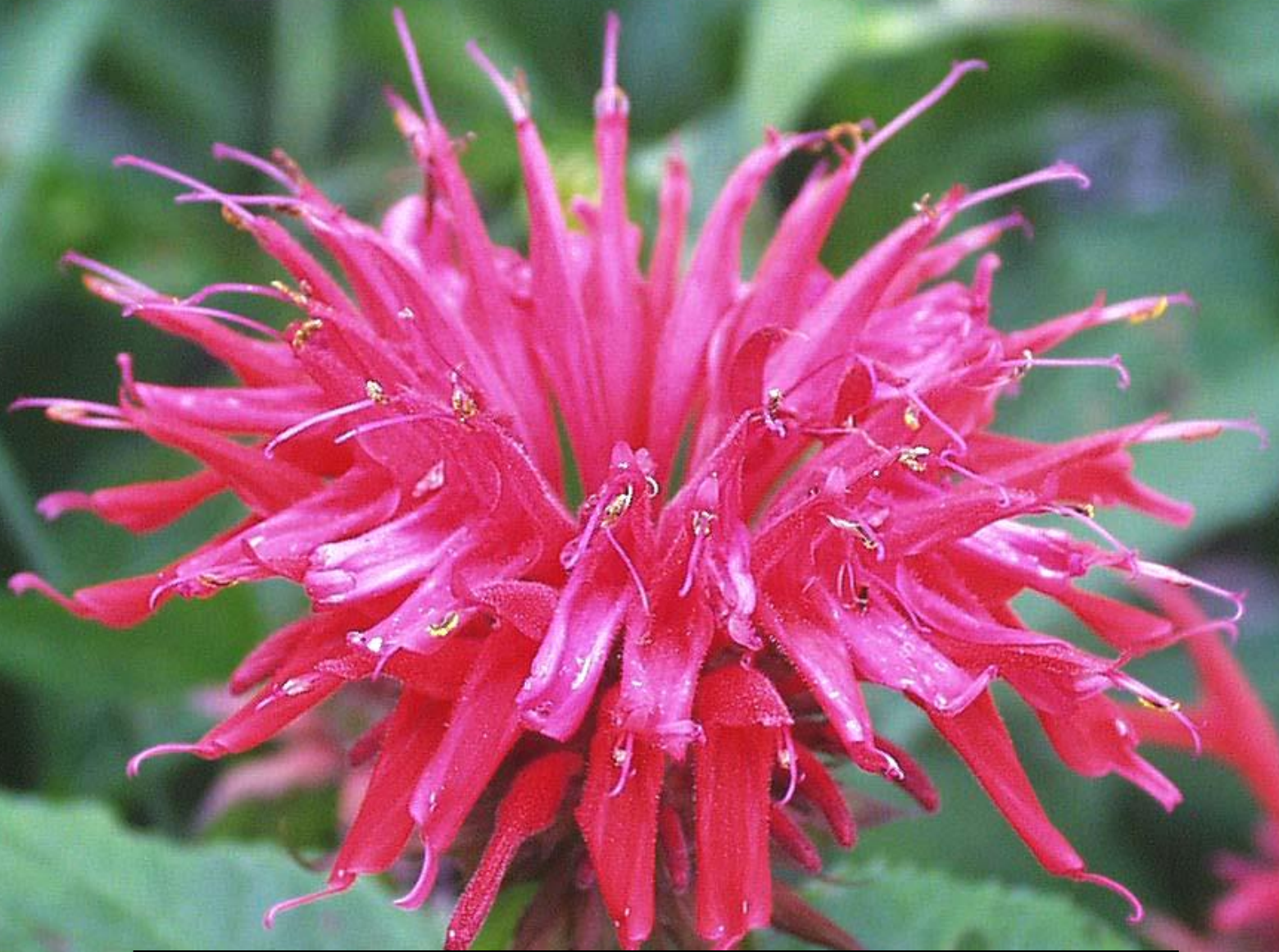
CLUSIACEAE = GUTTIFERAE



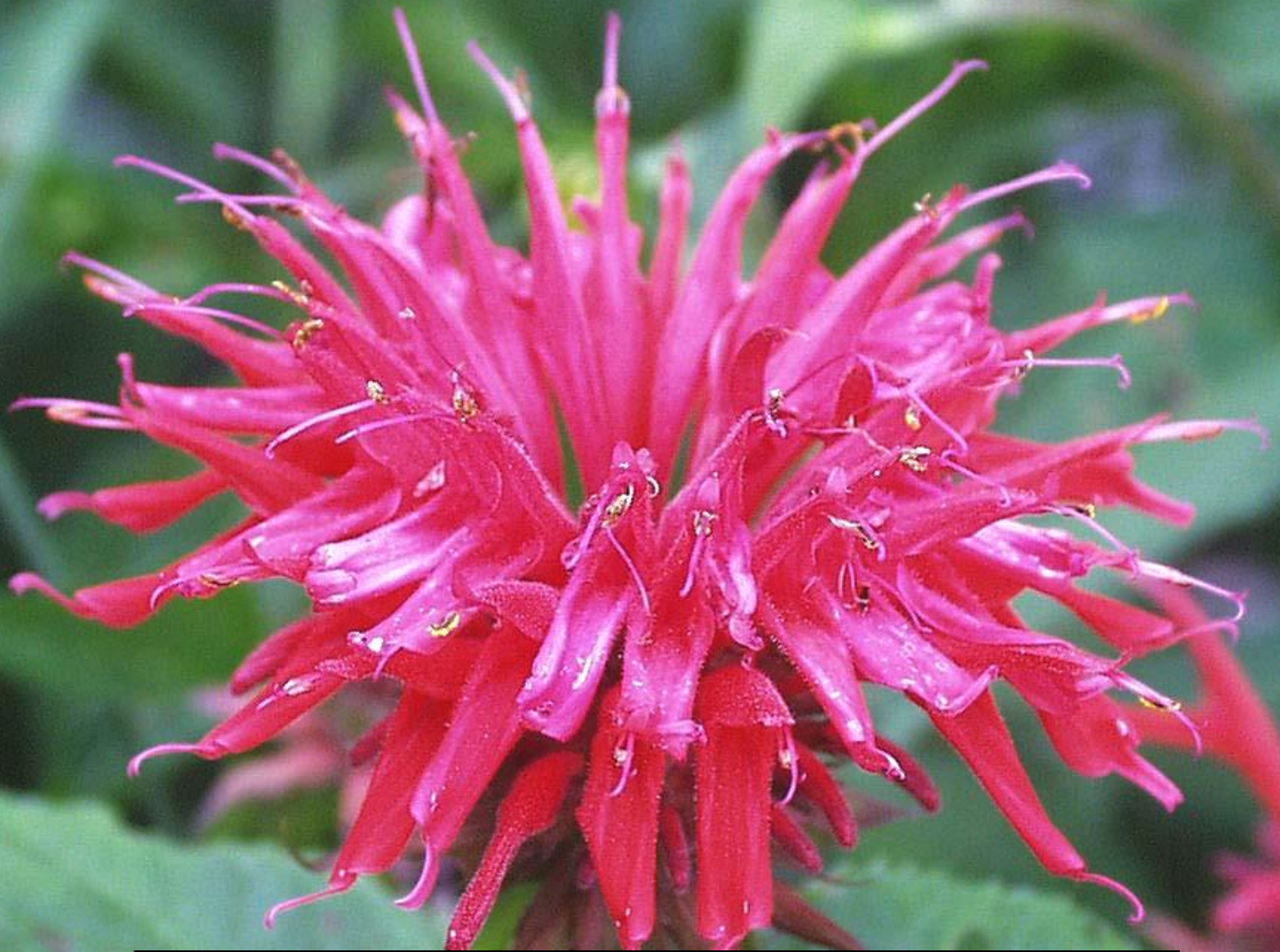
PEA FAMILY



FABACEAE = LEGUMINOSAE



MINT FAMILY



LAMIACEAE = LABIATAE



GRASS FAMILY



POACEAE = GRAMINEAE



**NON-ACEAE
SYNONYMS USE
DISCOURAGED**

PLANT LIFE CYCLE

PLOIDY LEVEL

PLOIDY LEVEL



PLOIDY LEVEL

NUMBER

**HOMOLOGOUS CHROMOSOME
SETS/CELL**

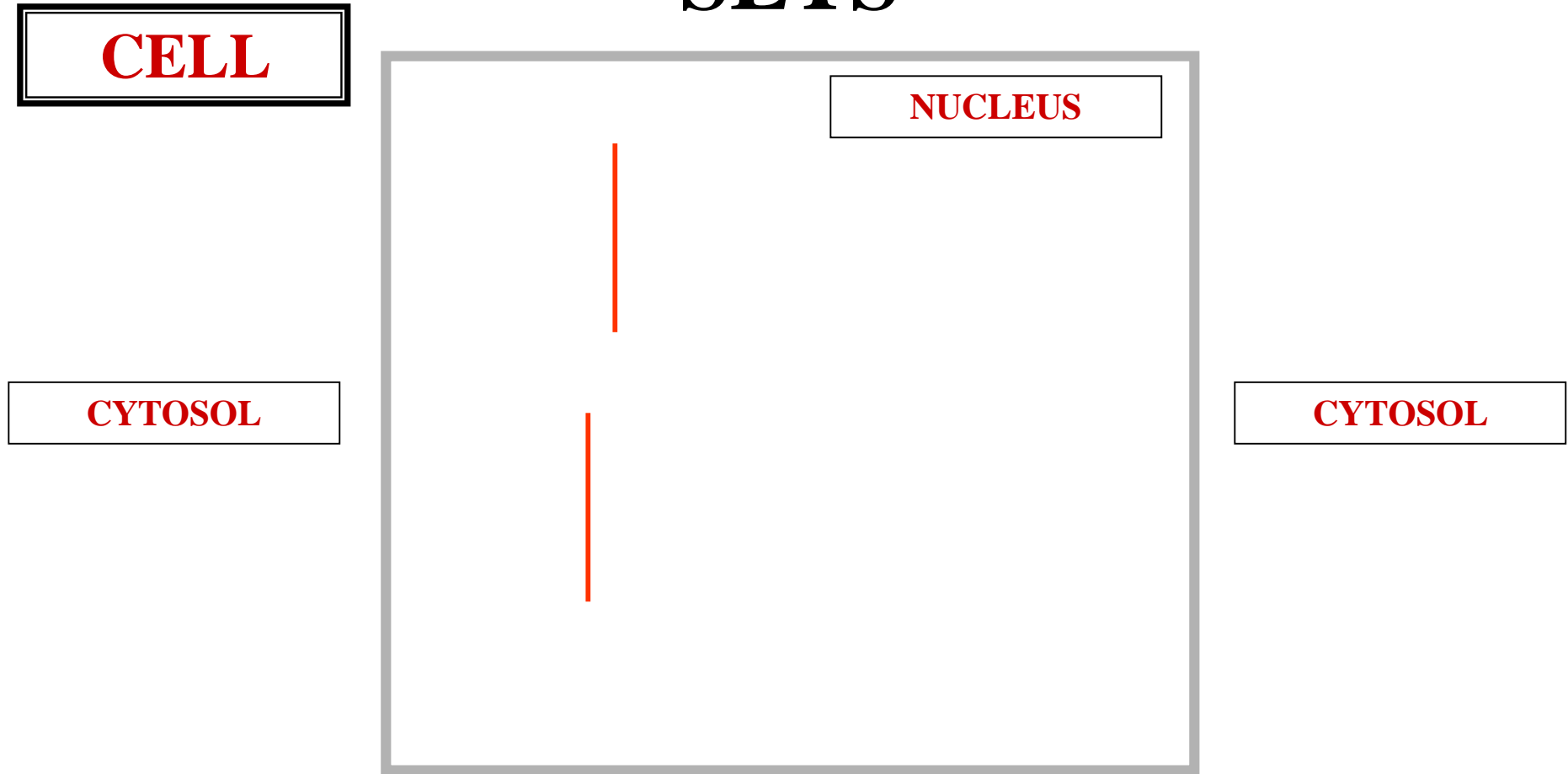
PLOIDY LEVEL

HOMOLOGOUS CHROMOSOME SETS



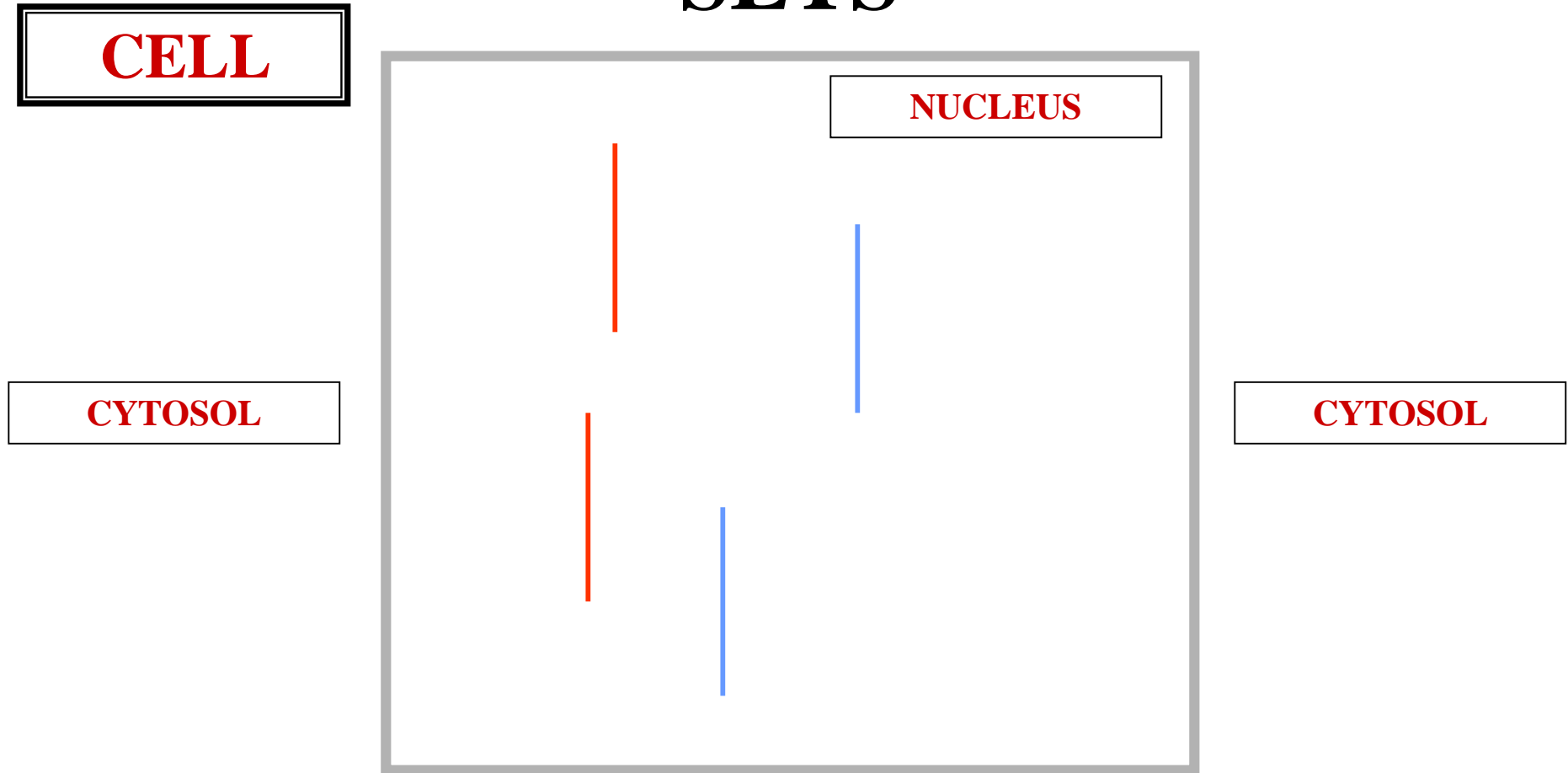
HOMOLOGOUS CHROMOSOMES SETS

HOMOLOGOUS CHROMOSOME SETS



HOMOLOGOUS CHROMOSOMES SETS

HOMOLOGOUS CHROMOSOME SETS

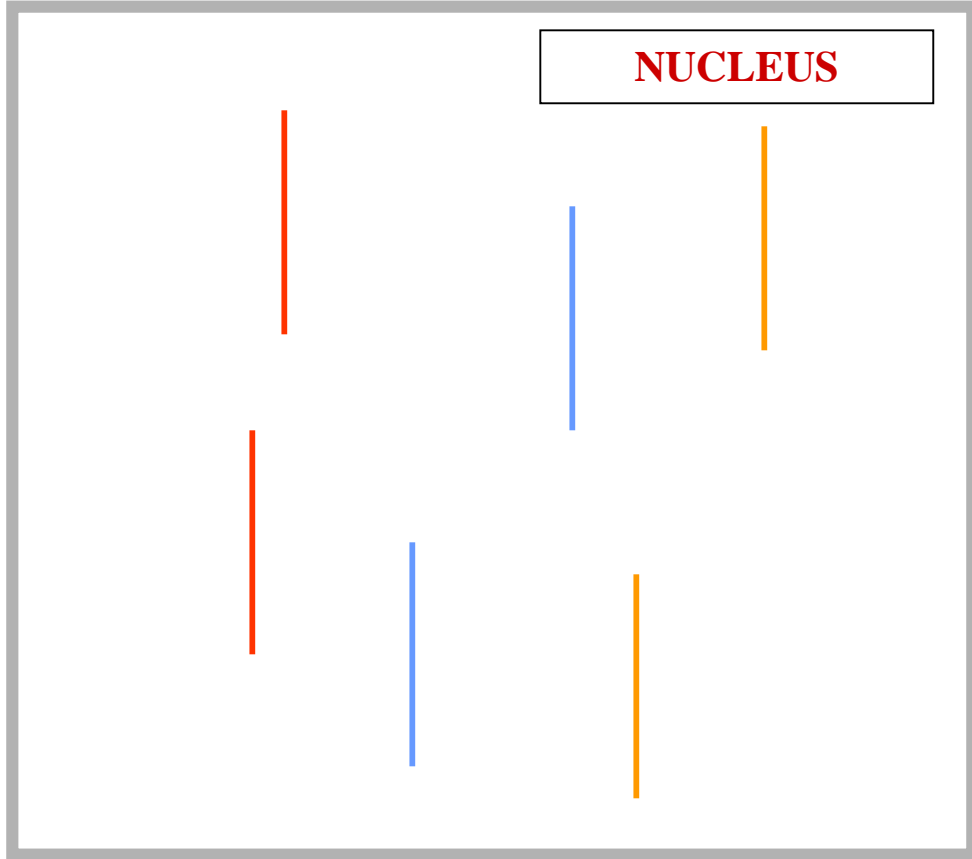


HOMOLOGOUS CHROMOSOMES SETS

HOMOLOGOUS CHROMOSOME SETS



CELL



CYTOSOL

CYTOSOL

HOMOLOGOUS CHROMOSOMES SETS

HOMOLOGOUS CHROMOSOME SETS P

CELL

NUCLEUS

**1ST
HOMOLOGOUS
CHROMOSOME
SET**

CYTOSOL

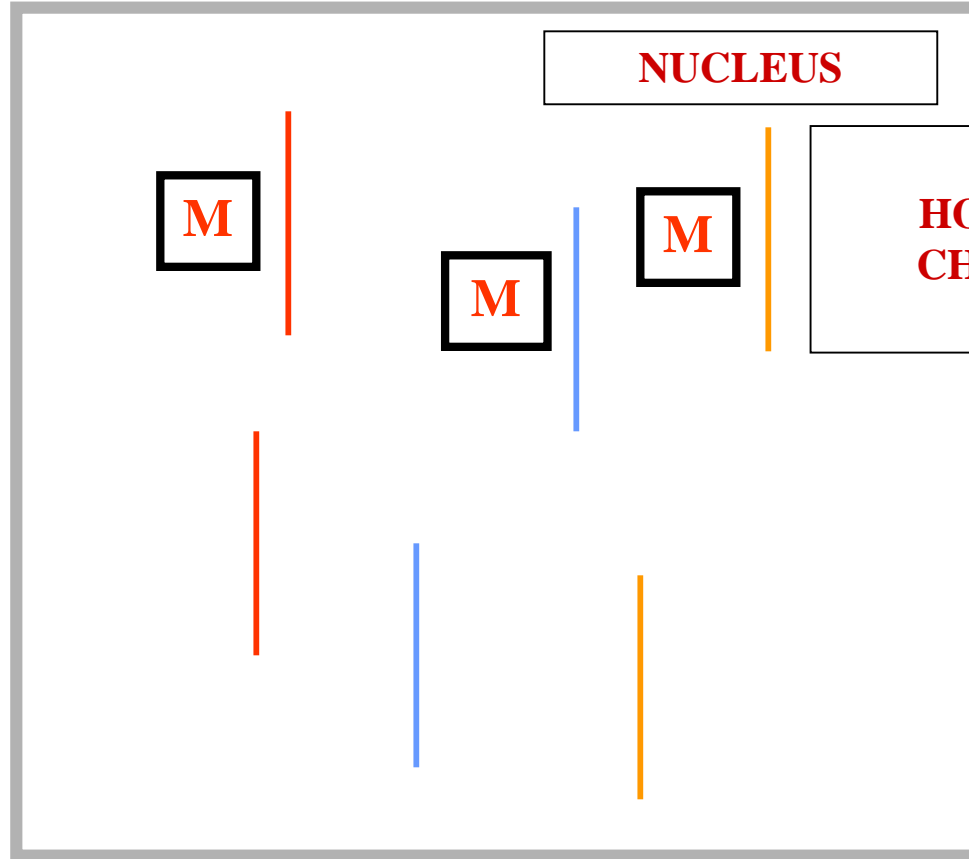
CYTOSOL

M

M

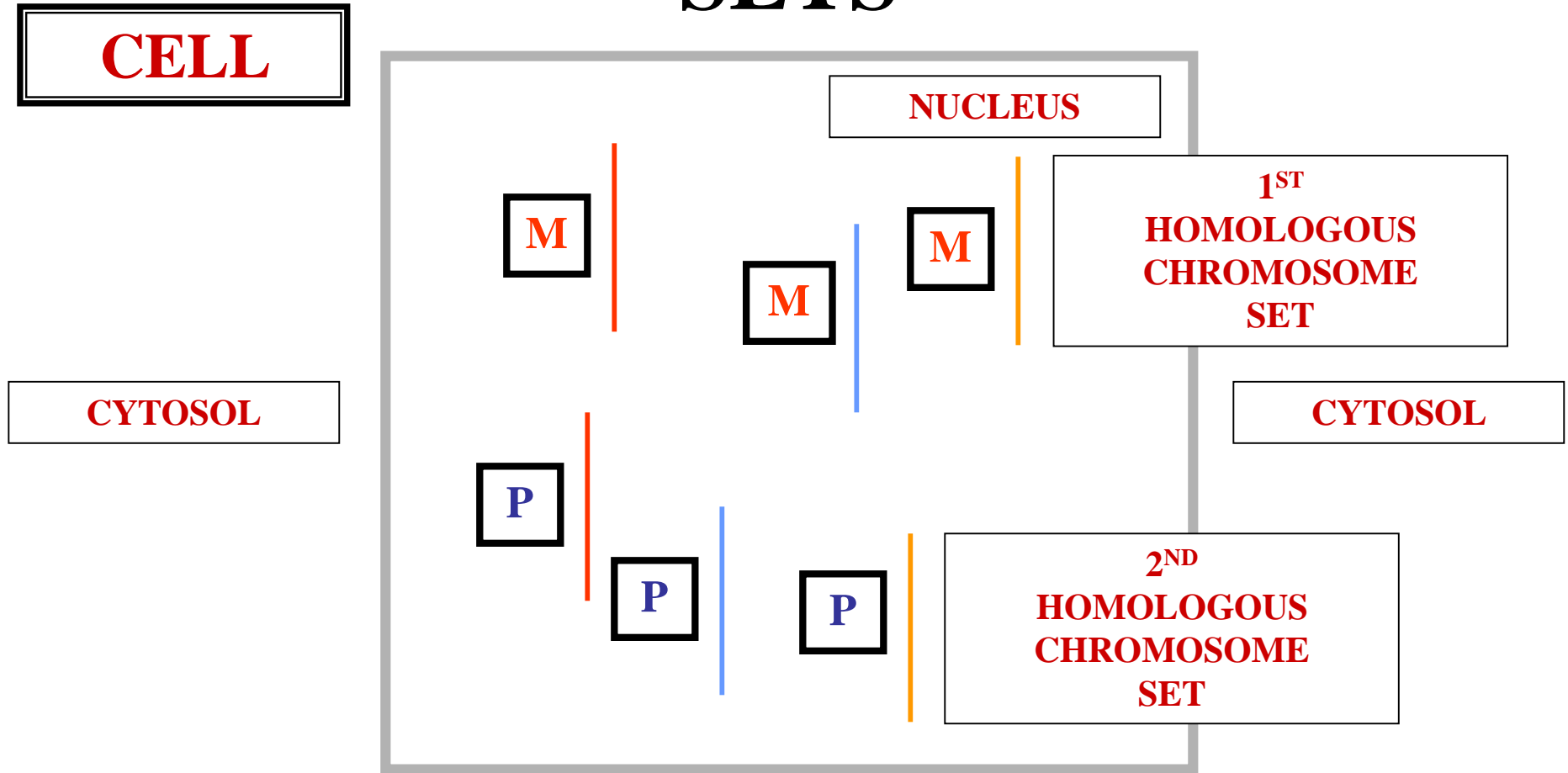
M

M = MATERNAL CHROMOSOME



HOMOLOGOUS CHROMOSOME SETS \$

SETS



M = MATERNAL CHROMOSOME

P = PATERNAL CHROMOSOME



PLOIDY LEVEL

NUMBER

**HOMOLOGOUS CHROMOSOME
SETS/CELL**

PLOIDY LEVEL

DIPLOID CELL
VS
HAPLOID CELL

DIPLOID CELL



DIPLOID CELL

**2 HOMOLOGOUS
CHROMOSOME SETS**

2N

DIPLOID CELL

PLOIDY LEVEL

CELL

NUCLEUS

CYTOSOL

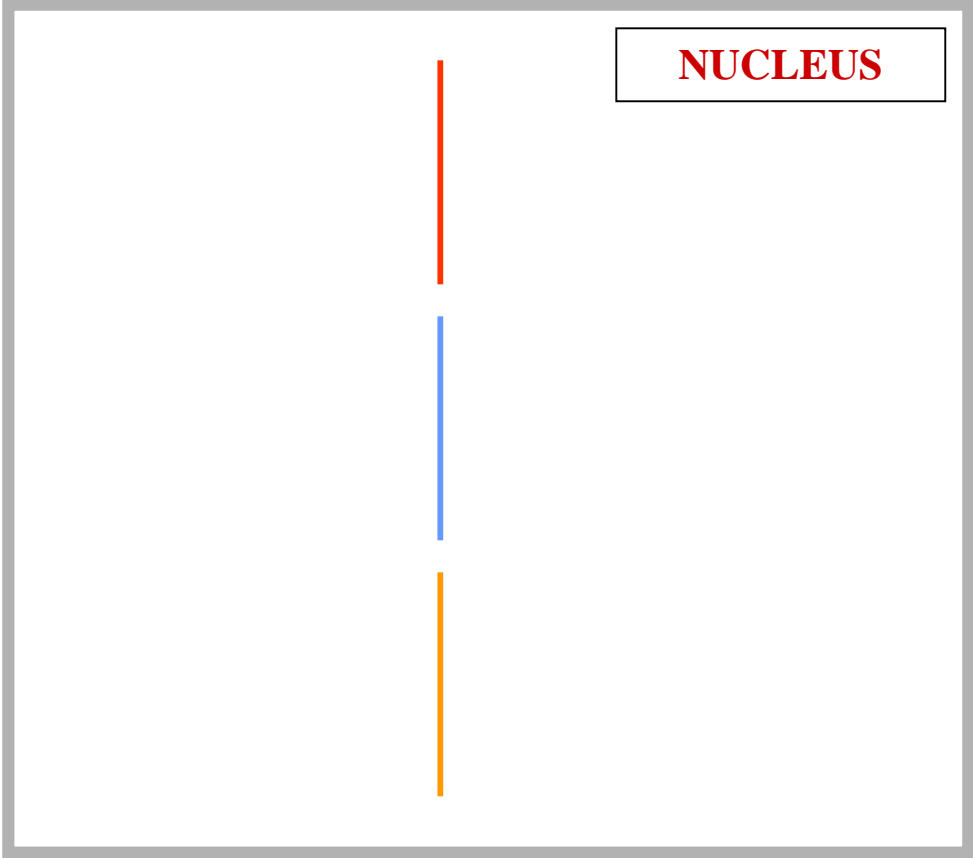
CYTOSOL

PLOIDY LEVEL

PLOIDY LEVEL



CELL



NUCLEUS

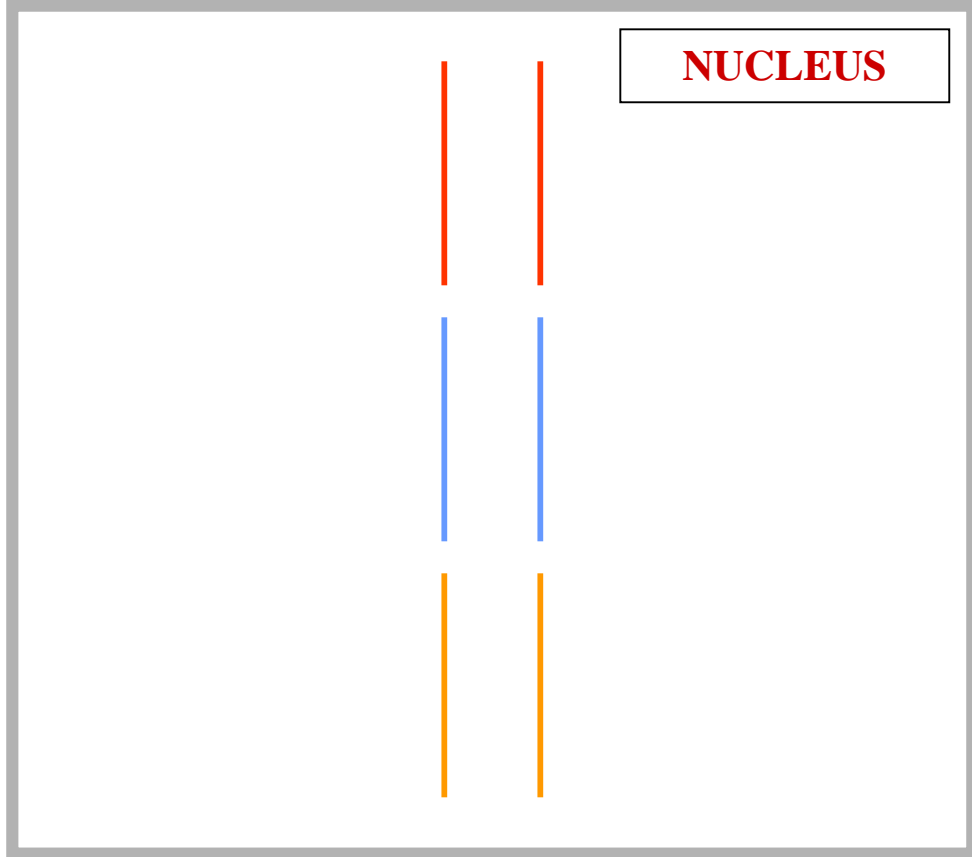
CYTOSOL

CYTOSOL

PLOIDY LEVEL

PLOIDY LEVEL

CELL



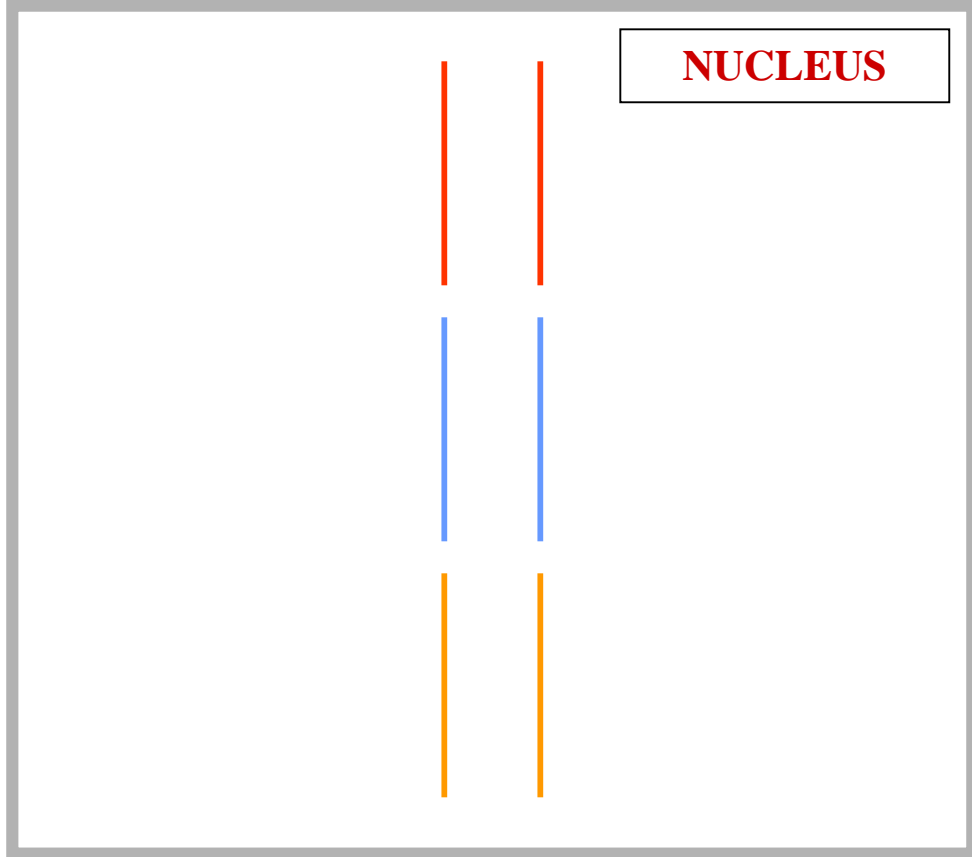
CYTOSOL

CYTOSOL

PLOIDY LEVEL

PLOIDY LEVEL

CELL



CYTOSOL

CYTOSOL

DIPLOID CELL

$$2N = 6$$

HAPLOID CELL



HAPLOID CELL

**1 HOMOLOGOUS
CHROMOSOME SET**

1N

HAPLOID CELL

PLOIDY LEVEL

CELL

NUCLEUS

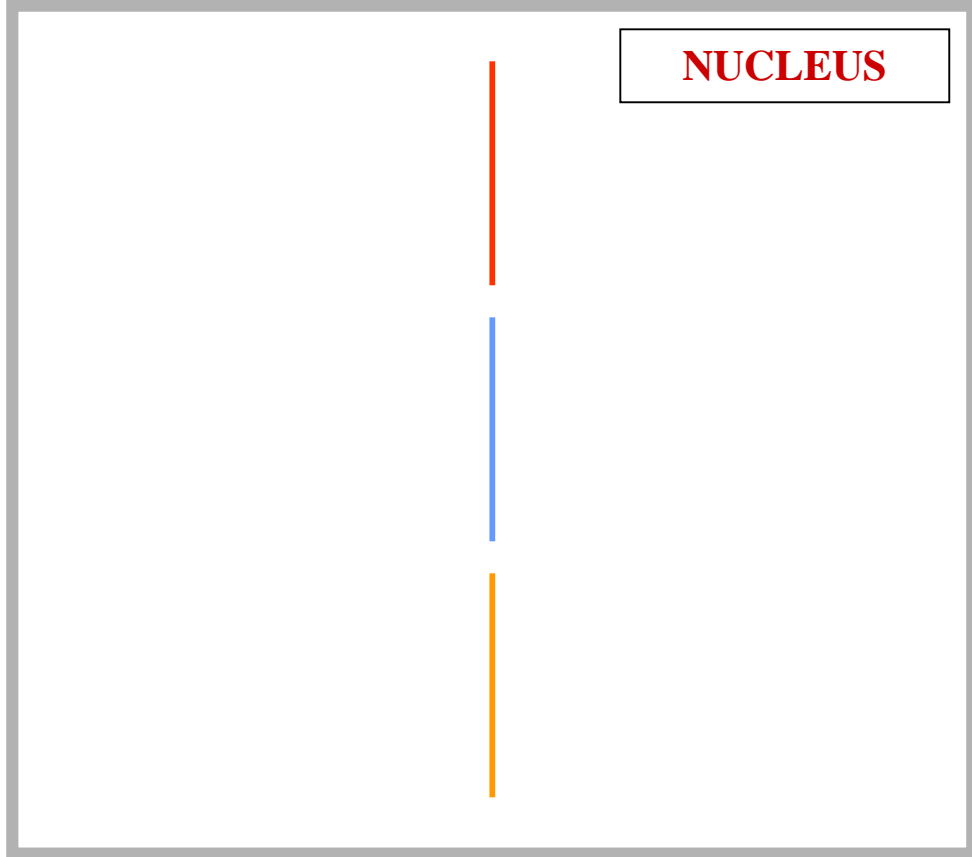
CYTOSOL

CYTOSOL

PLOIDY LEVEL

PLOIDY LEVEL

CELL



NUCLEUS

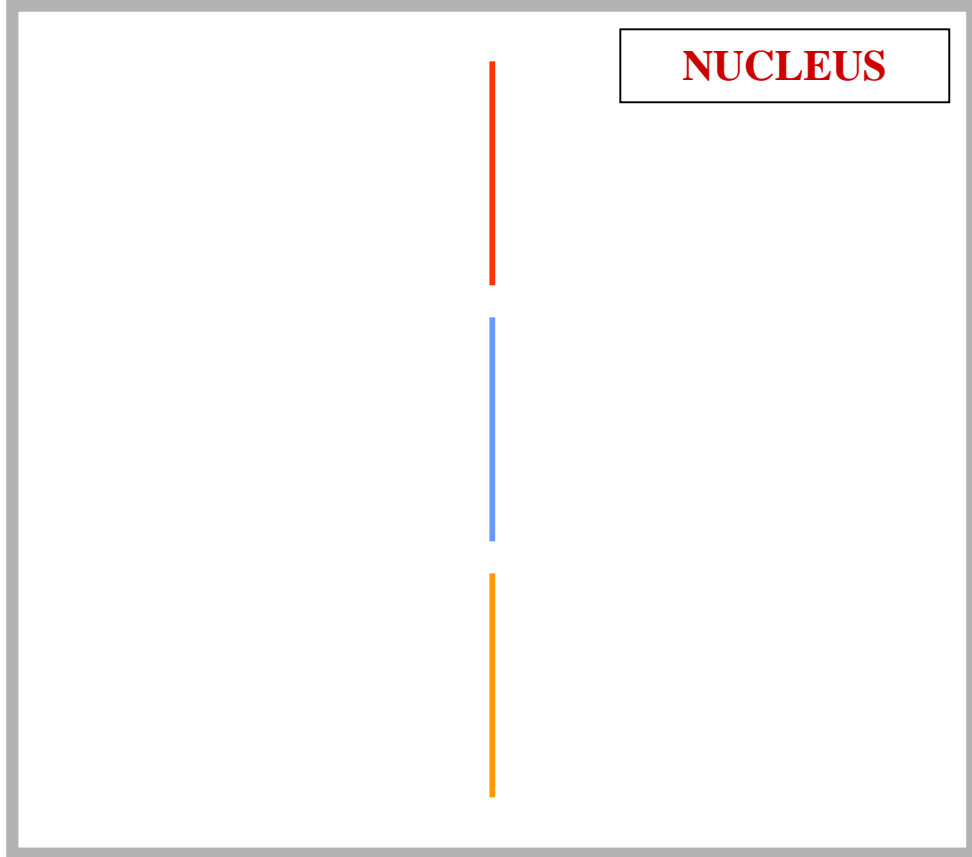
CYTOSOL

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

#



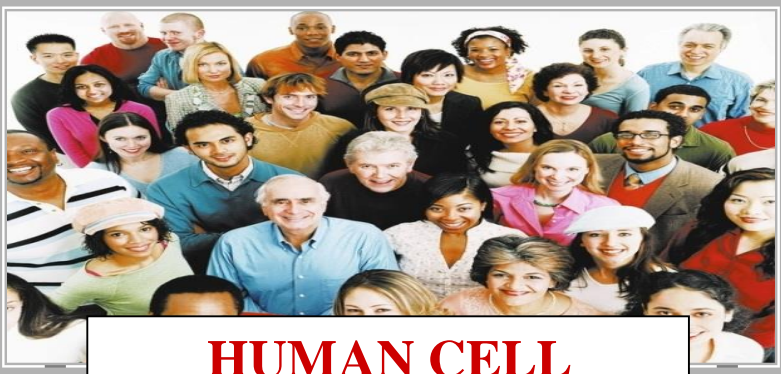
HOMO SAPIENS

HUMAN GENOME

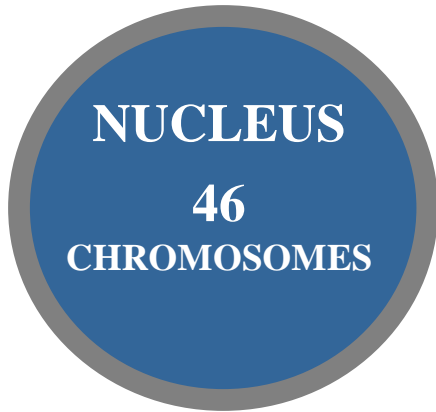


HOMO SAPIENS

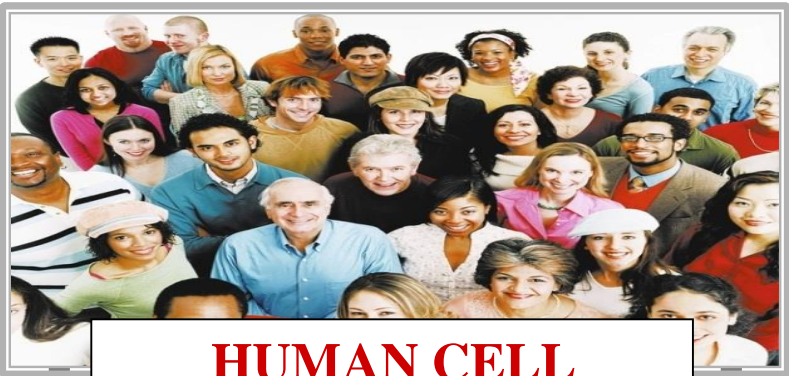




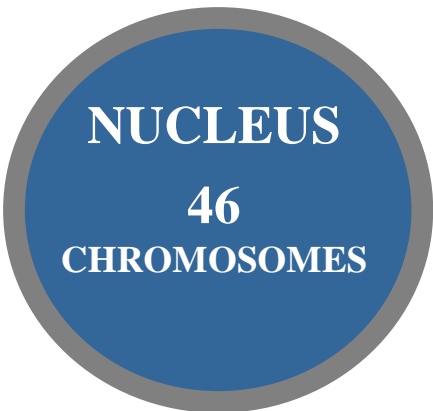
HUMAN CELL



HUMAN CELL

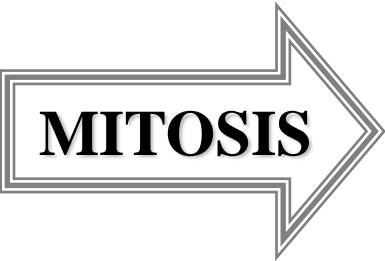


HUMAN CELL

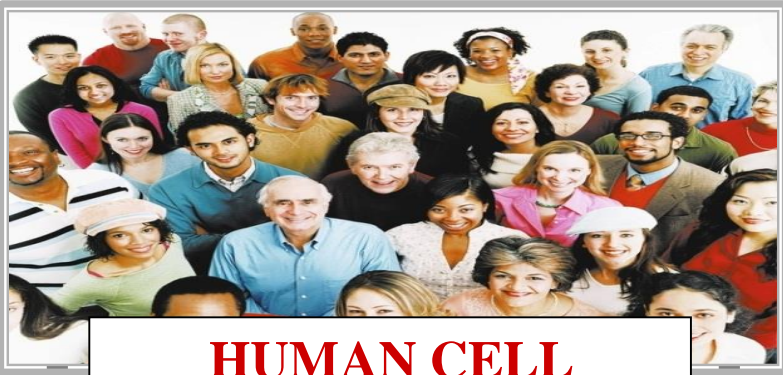


**NO CHROMOSOME
REDUCTION**

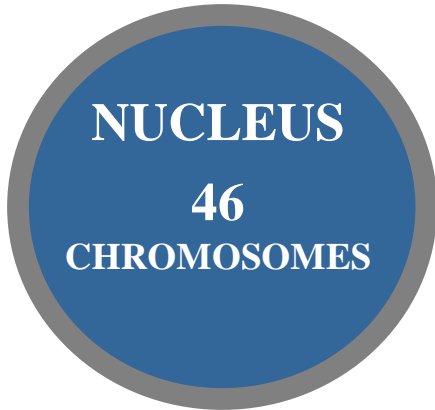
HUMAN CELL



MITOSIS

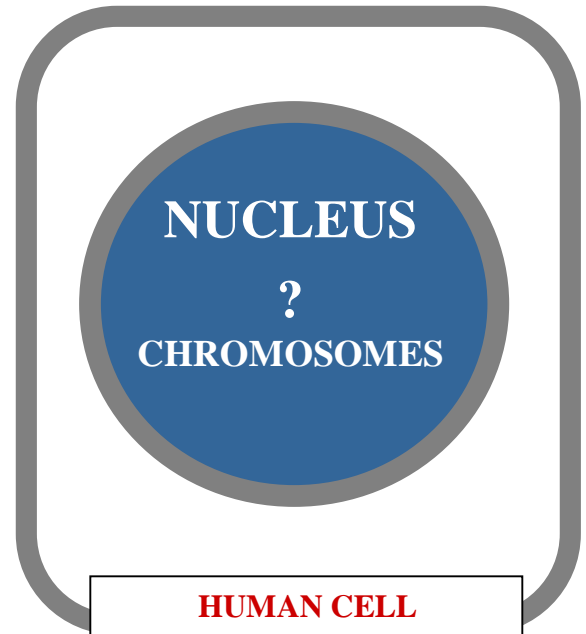
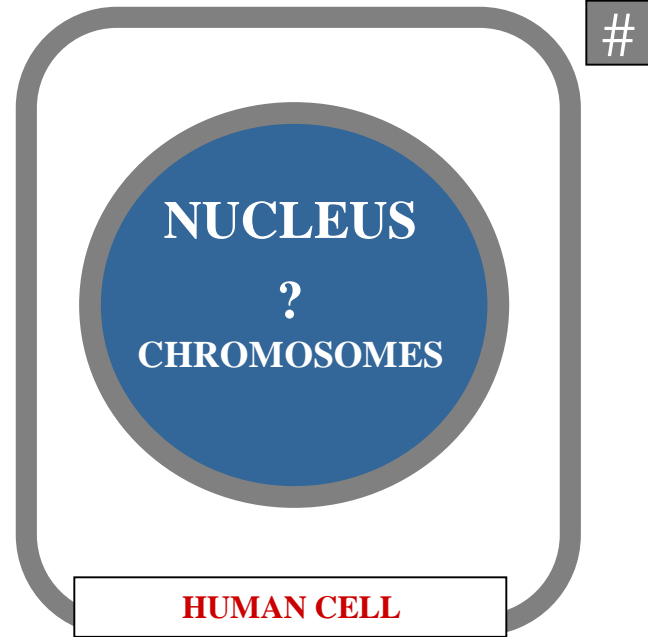
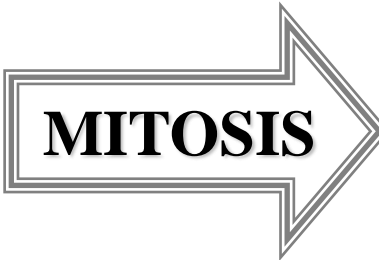


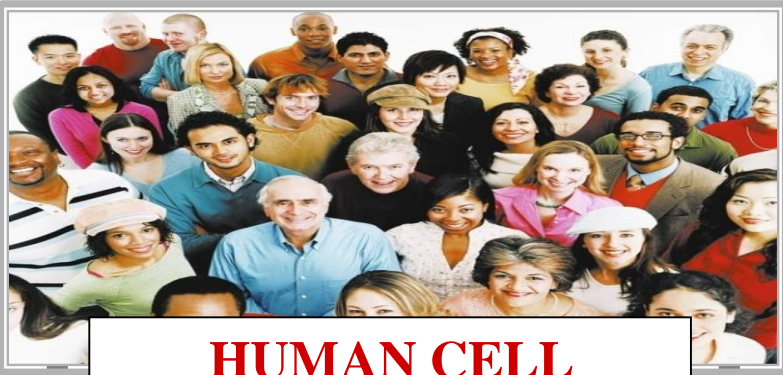
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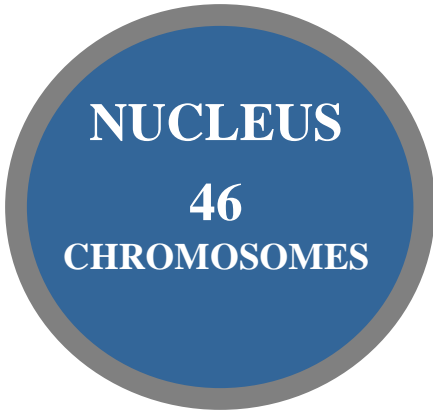
**NO CHROMOSOME
REDUCTION**

HUMAN CELL



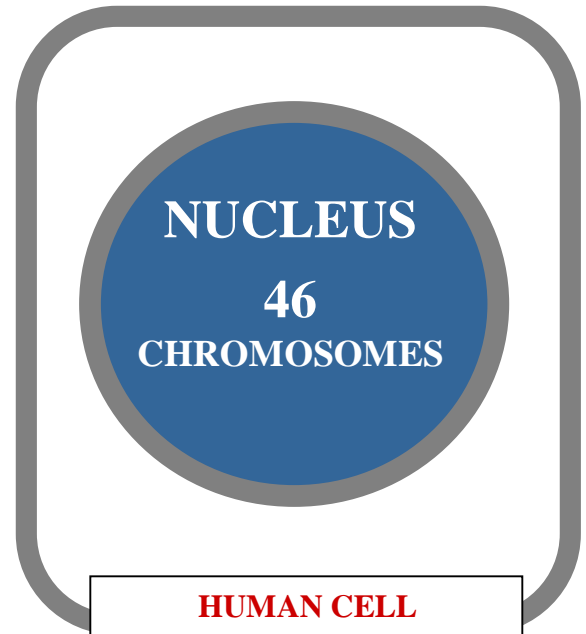
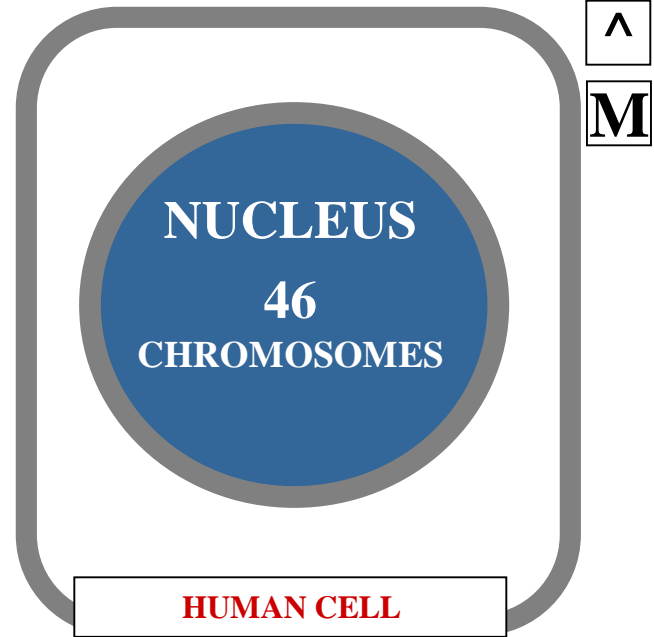
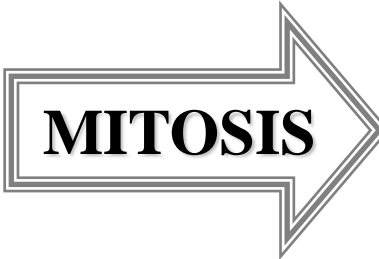


HUMAN CELL



**NO CHROMOSOME
REDUCTION**

HUMAN CELL





MEIOSIS

QUESTION

DURING MEIOSIS DOES
CHROMOSOME
NUMBER
REDUCTION OCCUR?

QUESTION

ANSWER

YES

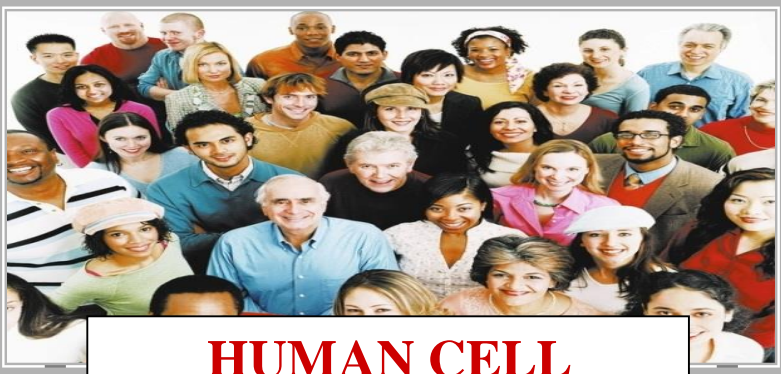
ANSWER

ANSWER

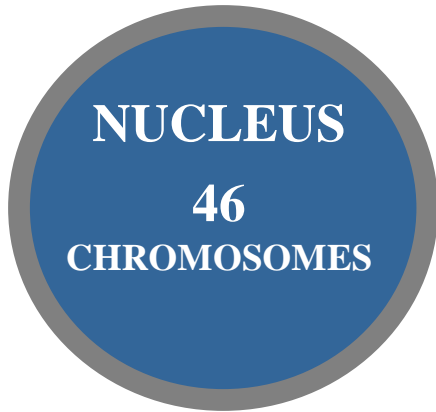


**DURING MEIOSIS
CHROMOSOME
NUMBER REDUCED
BY 1/2**

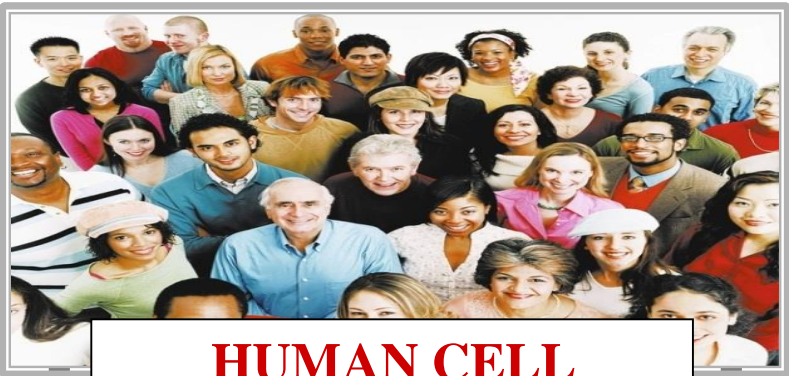
ANSWER



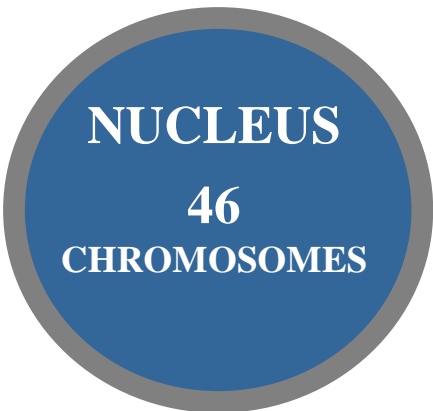
HUMAN CELL



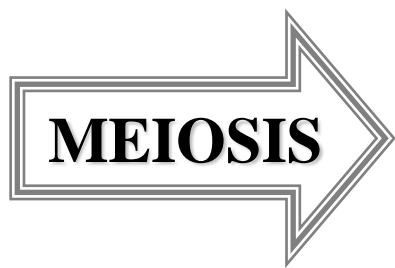
HUMAN CELL



HUMAN CELL



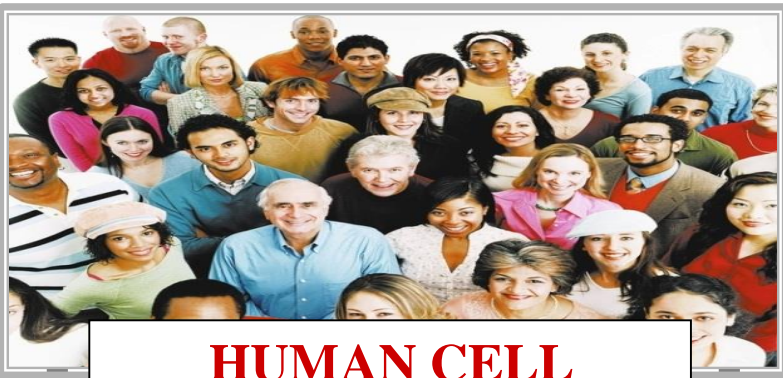
NUCLEUS
46
CHROMOSOMES



MEIOSIS

**YES CHROMOSOME
REDUCTION**

HUMAN CELL

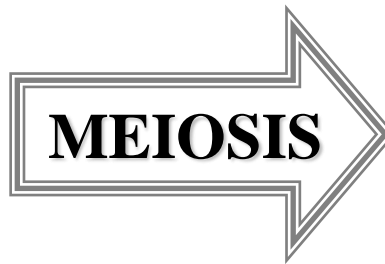


HUMAN CELL

NUCLEUS
46
CHROMOSOMES

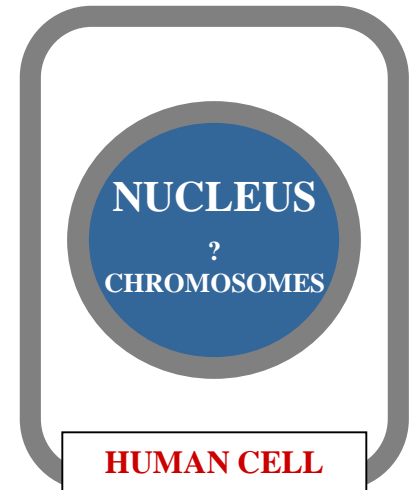
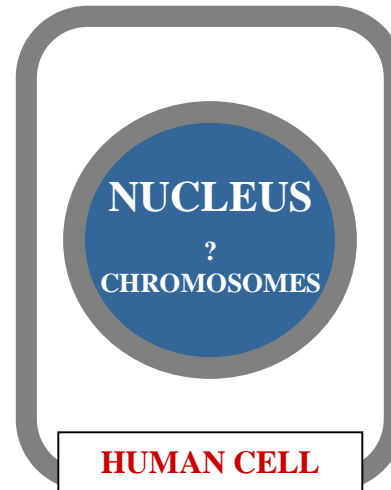
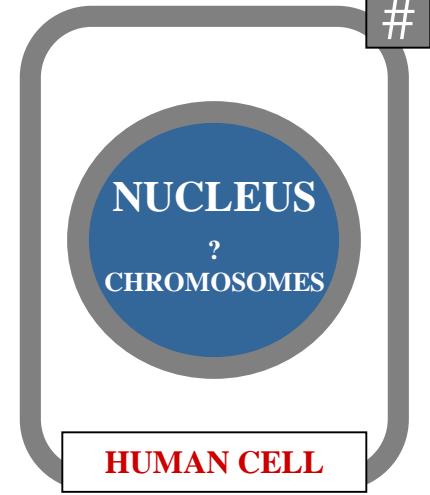
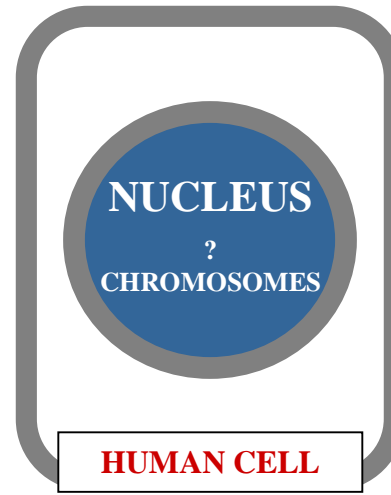
**YES CHROMOSOME
REDUCTION**

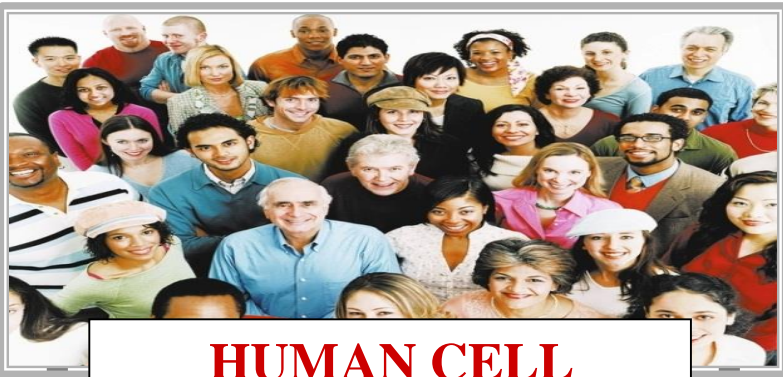
HUMAN CELL



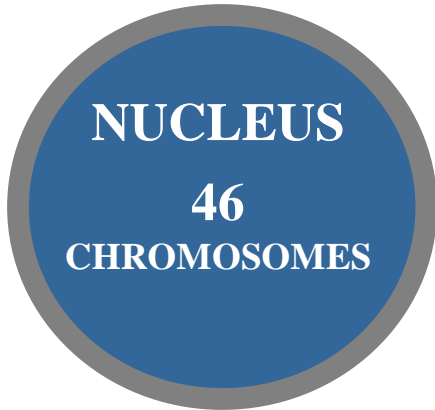
MEIOSIS

1/2 REDUCTION



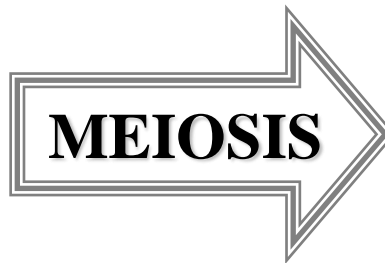


HUMAN CELL

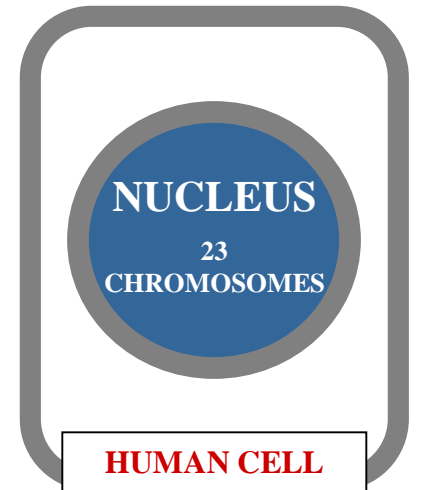
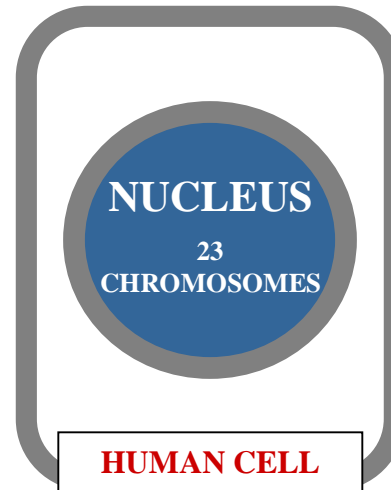
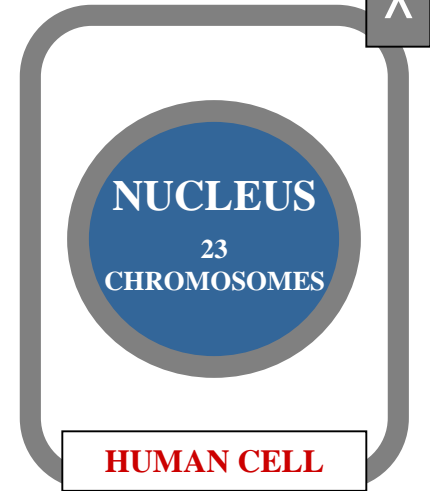
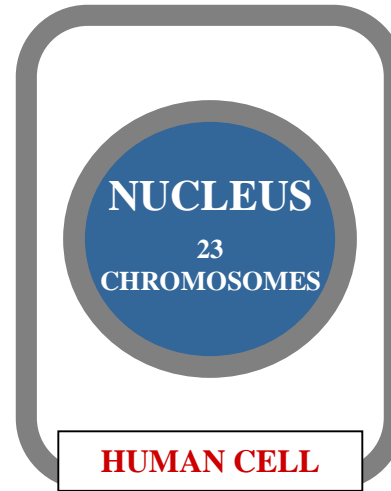


**YES CHROMOSOME
REDUCTION**

HUMAN CELL



1/2 REDUCTION





MEIOSIS: APPLIED



MEIOSIS: APPLIED ANIMAL LIFE CYCLE



ANIMAL LIFE CYCLE





NUCLEUS

GERM CELL



NUCLEUS

GAMETOCYTE

GERM CELL



NUCLEUS

**YES CHROMOSOME
REDUCTION**

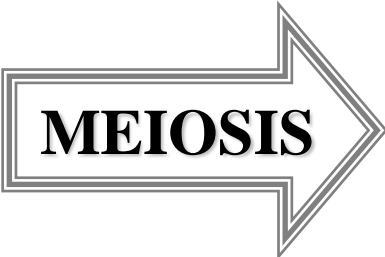
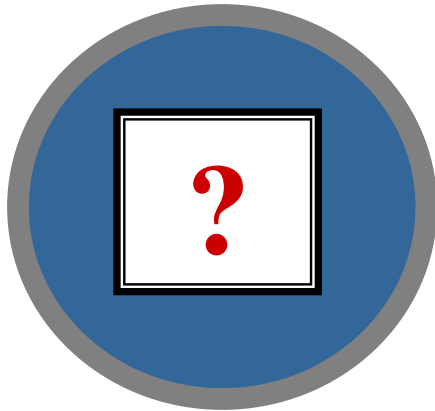
GAMETOCYTE

GERM CELL

MEIOSIS

1/2 REDUCTION





1/2 REDUCTION

**YES CHROMOSOME
REDUCTION**

GAMETOCYTE

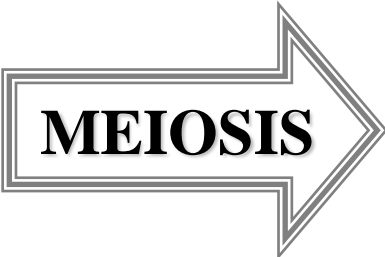
GERM CELL



**YES CHROMOSOME
REDUCTION**

GAMETOCYTE

GERM CELL



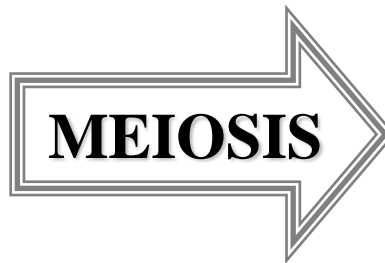
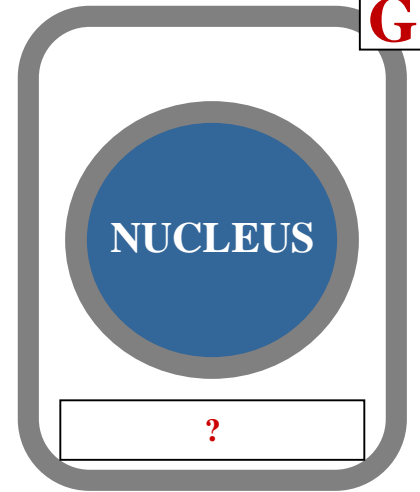
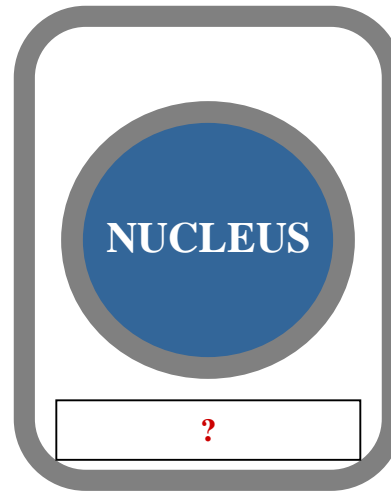
1/2 REDUCTION



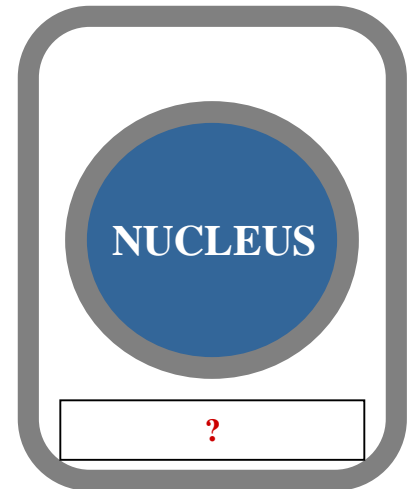
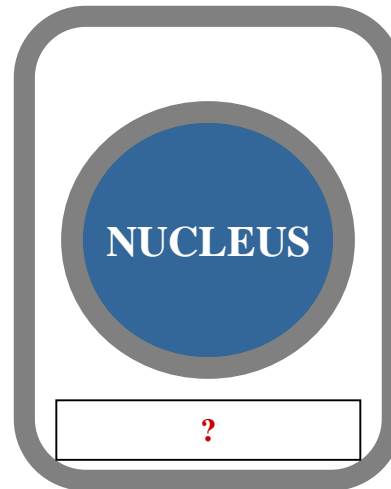
**YES CHROMOSOME
REDUCTION**

GAMETOCYTE

GERM CELL



1/2 REDUCTION

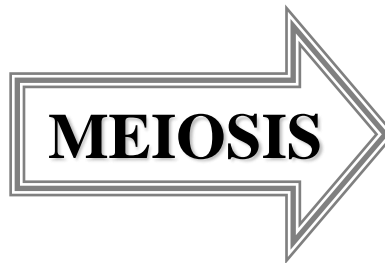
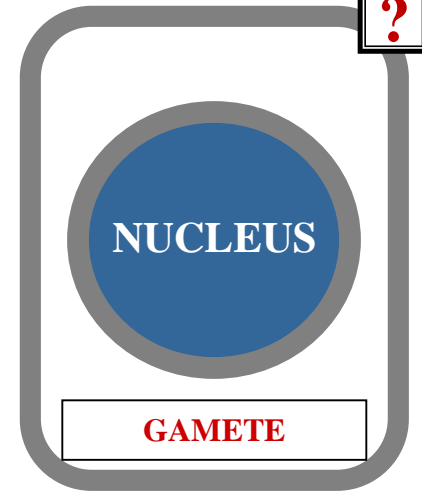
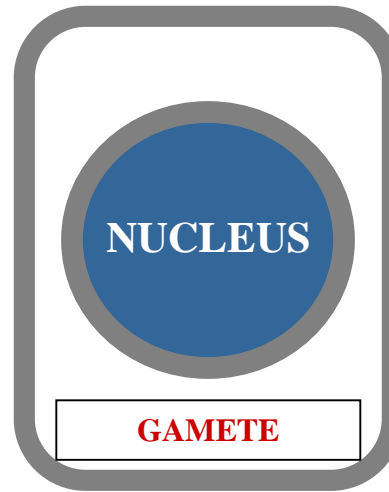




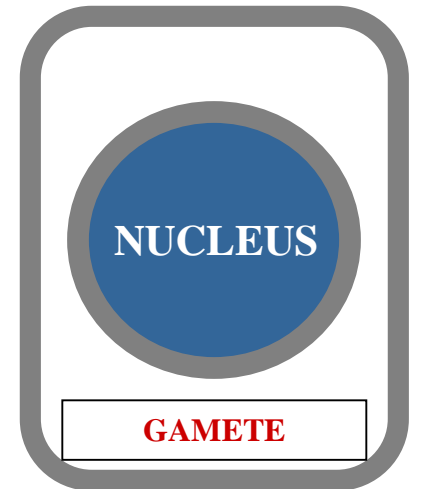
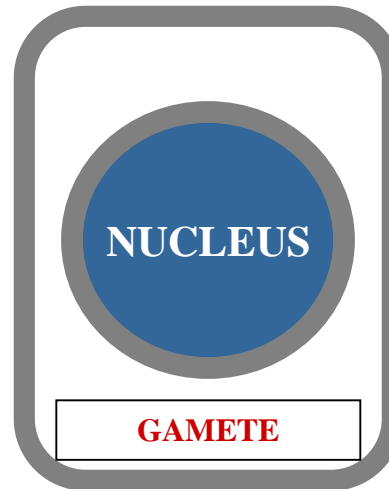
**YES CHROMOSOME
REDUCTION**

GAMETOCYTE

GERM CELL



1/2 REDUCTION

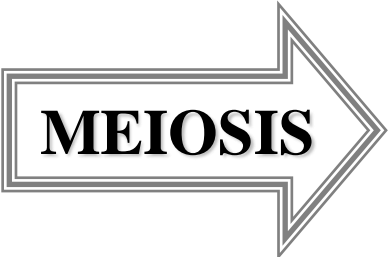
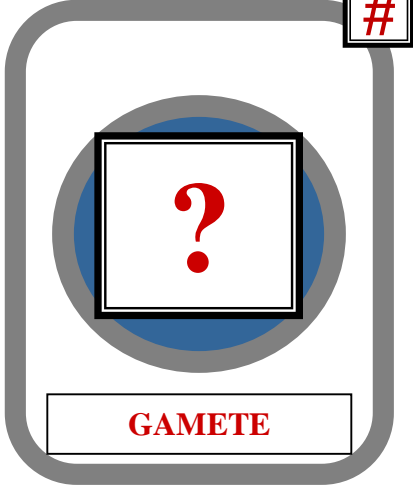




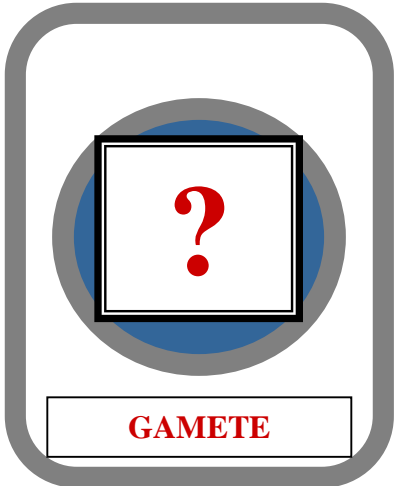
**YES CHROMOSOME
REDUCTION**

GAMETOCYTE

GERM CELL



1/2 REDUCTION

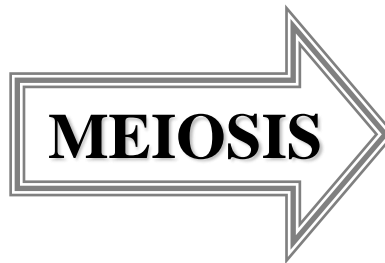




**YES CHROMOSOME
REDUCTION**

GAMETOCYTE

GERM CELL



1/2 REDUCTION



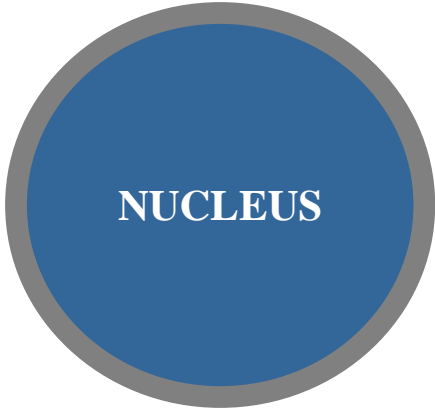


MEIOSIS: APPLIED PLANT LIFE CYCLE



PLANT LIFE CYCLE





GERM CELL



NUCLEUS

SPOROCYTE

GERM CELL