

Science Gr 5 Plant life cycle

Life cycle: is a series of different stages of development

Alternation of generation: the process of alternating between asexual and sexual reproduction. Ex: Moss life cycle and Fern life cycle

Flowers: are the reproductive organs of organism

Complete flower: the flower that has the all of the four main parts: petals, sepals, stamens and pistils.

Petals: are the brightly colored outer parts of the flower

Sepals: are the green part below petals and protects the flower's part when it just a bud

Stamen: is the male part of the flower.

Pistil: is the flower's female organ made of stigma, a style and an ovary

Filament: is the thin stalk portion of the stamen.

Anther: is at the top of filament and produces pollen grains

Stigma: is the opening at the top of the pistil.

Style: is the long necklike structure that leads down to the ovary

Ovary: the house of egg cells and it is the place where fertilization occurs.

Incomplete flower: is missing one or more of the flower parts of a complete flower.

Perfect flower: has both stamens and a pistil (the male and female parts) ex: lilies, gladioli and tulips

Incomplete perfect flower: has both male and female structures but missing petals. Ex: windflower

Imperfect flower: a flower lack either a stamen or a pistil. ex: willow trees

Pollination: the transfer of pollen from the stamen to the pistil.

Pollen: is a yellow powder that contains sperm cells

Nectar: is a sweet liquid produced by flowers to attract pollinators

Self-pollination: it occurs when a perfect flower with both male and female parts pollinates itself.

Cross pollination: it occurs when the pollen from one plant pollinates a flower on a different plant

Embryo: is the beginning of a new offspring

Seed coat: is the cover surrounding the seed.

Germination: is the development of a seed into a new plant.

Monocot: a type of flower that produces seeds with a single cotyledon. Ex: corn plants, orchids and grasses.

Dicot: a type of flower produces seeds with two cotyledons. Ex: bean plants and roses

Conifer: is a gymnosperm, a plant that has seeds but not flowers.

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Comparison between perfect and imperfect incomplete flowers

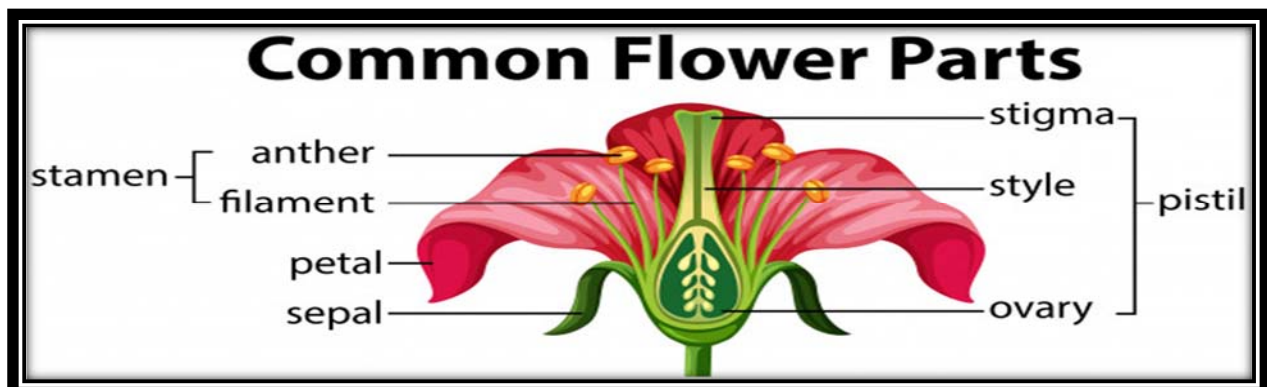
	Perfect/ incomplete flower	imperfect incomplete flower
Definition	has both male and female structures but missing petals	a flower lack either male and female structures (stamen or a pistil)
Example	<ul style="list-style-type: none"> • Lilies • gladioli • tulips 	<ul style="list-style-type: none"> • willow trees

Comparison between angiosperm and gymnosperm life cycle

	Angiosperm life cycle	Gymnosperm life cycle
Reproduction	Flowers	Cones
Seeds	Seeds inside fruits	Necked seeds

Comparison between monocot and dicot flowers

	Monocot flower	Dicot flower
Seeds	Single cotyledon	Two cotyledon
Leaves	Parallel vein pattern	Branched vein pattern
Examples	<ul style="list-style-type: none"> • corn plants • orchids • grasses 	<ul style="list-style-type: none"> • Bean plants • Roses



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Choose the correct definition:

- **a series of different stages of development**
 - Alternation of generation
 - Life cycle
 - Germination
 - Pollination
- **Sepals:**
 - the male part of the flower.
 - the flower's female organ made of stigma, a style and an ovary
 - the green part below petals and protects the flower's part when it just a bud
 - the brightly colored outer parts of the flower
- **Incomplete flower:**
 - has both male and female structures but missing petals
 - is missing one or more of the flower parts of a complete flower.
 - a flower lack either a stamen or a pistil
 - has both stamens and a pistil
- **Anther:**
 - the opening at the top of the pistil.
 - the thin stalk portion of the stamen
 - at the top of filament and produces pollen grains
 - the long necklike structure that leads down to the ovary
- **the process of alternating between asexual and sexual reproduction.**
 - Germination
 - Pollination
 - Alternation of generation
 - Life cycle
- **the male part of the flower.**
 - pistil
 - sepals
 - stamen
 - petals
- **Dicot:**
 - is a gymnosperm, a plant that has seeds but not flowers.
 - a type of flower produces seeds with two cotyledons.
 - a flower lack either male and female structures
 - a type of flower that produces seeds with a single cotyledon.

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- **the reproductive organs of plants**
 - pollen
 - embryo
 - flowers
 - nectar
- **the flower's female organ made of stigma, a style and an ovary**
 - stamen
 - pistil
 - sepals
 - petals
- **Stigma:**
 - at the top of filament and produces pollen grains
 - the long necklike structure that leads down to the ovary
 - the opening at the top of the pistil.
 - the thin stalk portion of the stamen
- **Stamen:**
 - the flower's female organ made of stigma, a style and an ovary
 - the brightly colored outer parts of the flower
 - the green part below petals and protects the flower's part when it just a bud
 - the male part of the flower.
- **the green part below petals and protects the flower's part when it just a bud**
 - Petals
 - Pollen
 - Seed
 - Sepals
- **Incomplete perfect flower:**
 - a flower lack either a stamen or a pistil
 - has both stamens and a pistil
 - has both male and female structures but missing petals
 - is missing one or more of the flower parts of a complete flower.
- **Petals:**
 - the green part below petals and protects the flower's part when it just a bud
 - the male part of the flower.
 - the flower's female organ made of stigma, a style and an ovary
 - the brightly colored outer parts of the flower

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- **the long necklike structure that leads down to the ovary**
 - sepals
 - anther
 - style
 - stigma
- **the transfer of pollen from the stamen to the pistil.**
 - Life cycle
 - Germination
 - Pollination
 - Alternation of generation
- **Conifer:**
 - is a gymnosperm, a plant that has seeds but not flowers.
 - a type of flower produces seeds with two cotyledons.
 - a flower lack either male and female structures
 - a type of flower that produces seeds with a single cotyledon
- **the thin stalk portion of the stamen.**
 - anther
 - style
 - filament
 - stigma
- **a type of flower that produces seeds with a single cotyledon**
 - perfect flower
 - monocot
 - dicot
 - conifer
- **the house of egg cells and it is the place where fertilization occurs.**
 - Seeds
 - Ovary
 - Anther
 - Pollen
- **Pistil:**
 - the brightly colored outer parts of the flower
 - the green part below petals and protects the flower's part when it just a bud
 - the male part of the flower.
 - the flower's female organ made of stigma, a style and an ovary

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- **Perfect flower:**
 - is missing one or more of the flower parts of a complete flower.
 - a flower lack either a stamen or a pistil
 - has both male and female structures but missing petals
 - has both stamens and a pistil
- **Filament:**
 - the long necklike structure that leads down to the ovary
 - the opening at the top of the pistil.
 - the thin stalk portion of the stamen
 - at the top of filament and produces pollen grains
- **Style:**
 - the thin stalk portion of the stamen
 - at the top of filament and produces pollen grains
 - the long necklike structure that leads down to the ovary
 - the opening at the top of the pistil.
- **the development of a seed into a new plant**
 - Pollination
 - Alternation of generation
 - Germination
 - Life cycle
- **Imperfect flower:**
 - has both stamens and a pistil
 - has both male and female structures but missing petals
 - is missing one or more of the flower parts of a complete flower.
 - a flower lack either a stamen or a pistil
- **a sweet liquid produced by flowers to attract pollinators**
 - pollen
 - anther
 - nectar
 - seeds
- **the beginning of a new offspring**
 - Seeds
 - Embryo
 - Ovary
 - Anther

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- **the cover surrounding the seed.**
 - Embryo
 - Anther
 - Coat
 - Style
- **Monocot:**
 - is a gymnosperm, a plant that has seeds but not flowers.
 - a type of flower produces seeds with two cotyledons.
 - a flower lack either male and female structures
 - a type of flower that produces seeds with a single cotyledon.
- **Fill the table with the correct information.**

Lilies	willow trees	tulips	gladioli
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Perfect/ incomplete flower	imperfect incomplete flower

- **Fill the table with the correct information.**

corn plants	Bean plants	orchids	grasses	Roses
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Monocot flower	Dicot flower

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complete the below diagram with the required information.

