

**Science Gr 5**  
**Chapter 2**  
**Parents and Offspring**

- **Reproduction:** producing new members coming from a parent organism
- **Sexual reproduction:** the production of a new organism from a female sex cell and a male sex cell (Two parents) Ex: Mammals
- **Fertilization:** the process of joining a sperm cell from a male and an egg cell from a female into a single unit
- **Asexual reproduction:** the production of new organism from only one cell that genetically copies from the parent organism. (single parent)
- **Vegetative propagation:** asexual reproduction in plants that produces new plants from leaves, roots, or stems.
- **Runners:** are plants stems that lie on or under the ground and sprout up as new plants. Ex: strawberry, aspen trees, and most grasses.
- **Pollination:** the transfer of a pollen grain to the egg production part of a plant.
- **Metamorphosis:** a series of distinct growth stages that are different from one another.
- **Heredity:** the passing down of inherited traits from one generation to the next.

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• **Sexual and asexual reproduction comparison**

	<b>Sexual</b>	<b>Asexual</b>
<b>Parent</b>	<b>Two parents</b>	<b>One parent</b>
<b>Genetics</b>	<b>Offspring are genetically variation</b>	<b>Offspring are genetically identical to parent</b>
<b>Process</b>	<ul style="list-style-type: none"><li>• <b>Pollination</b></li><li>• <b>Fertilization</b></li></ul>	<ul style="list-style-type: none"><li>• <b>Splitting</b></li><li>• <b>Budding</b></li><li>• <b>Vegetative propagation (runners)</b></li></ul>
<b>Example</b>	<ul style="list-style-type: none"><li>• <b>Mammals</b></li></ul>	<ul style="list-style-type: none"><li>• <b>Bacteria</b></li><li>• <b>Unicellular Protists</b></li><li>• <b>Fungi</b></li><li>• <b>Plants</b></li><li>• <b>Animals such as jelly fish</b></li><li>• <b>Lizards, frogs and insects</b></li></ul>

## Science Gr 5 Chapter 2 Parents and Offspring

### Choose the correct definition:

- **Reproduction:**
  - the production of a new organism from a female sex cell and a male sex cell (Two parents) Ex: Mammals
  - the process of joining a sperm cell from a male and an egg cell from a female into a single unit
  - the production of new organism from only one cell that genetically copies from the parent organism. (single parent)
  - producing new members coming from a parent organism
- **Vegetative propagation:**
  - are plants stems that lie on or under the ground and sprout up as new plants. Ex: strawberry, aspen trees, and most grasses
  - the transfer of a pollen grain to the egg production part of a plant
  - a series of distinct growth stages that are different from one another.
  - asexual reproduction in plants that produces new plants from leaves, roots, or stems.
- **Fertilization:**
  - the production of a new organism from a female sex cell and a male sex cell (Two parents) Ex: Mammals
  - the process of joining a sperm cell from a male and an egg cell from a female into a single unit
  - the production of new organism from only one cell that genetically copies from the parent organism. (single parent)
  - producing new members coming from a parent organism
- **Asexual reproduction:**
  - the production of a new organism from a female sex cell and a male sex cell (Two parents) Ex: Mammals
  - the process of joining a sperm cell from a male and an egg cell from a female into a single unit
  - the production of new organism from only one cell that genetically copies from the parent organism. (single parent)
  - producing new members coming from a parent organism

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- **Metamorphosis:**
  - the transfer of a pollen grain to the egg production part of a plant
  - a series of distinct growth stages that are different from one another.
  - the passing down of inherited traits from one generation to the net
  - asexual reproduction in plants that produces new plants from leaves, roots, or stems.
- **Heredity:**
  - are plants stems that lie on or under the ground and sprout up as new plants. Ex: strawberry, aspen trees, and most grasses
  - the passing down of inherited traits from one generation to the net
  - a series of distinct growth stages that are different from one another.
  - asexual reproduction in plants that produces new plants from leaves, roots, or stems.
- **Sexual reproduction:**
  - the production of a new organism from a female sex cell and a male sex cell (Two parents) Ex: Mammals
  - the process of joining a sperm cell from a male and an egg cell from a female into a single unit
  - the production of new organism from only one cell that genetically copies from the parent organism. (single parent)
  - producing new members coming from a parent organism
- **Runners:**
  - the passing down of inherited traits from one generation to the net
  - the transfer of a pollen grain to the egg production part of a plant
  - are plants stems that lie on or under the ground and sprout up as new plants. Ex: strawberry, aspen trees, and most grasses
  - asexual reproduction in plants that produces new plants from leaves, roots, or stems.
- **Pollination:**
  - a series of distinct growth stages that are different from one another.
  - are plants stems that lie on or under the ground and sprout up as new plants. Ex: strawberry, aspen trees, and most grasses
  - the passing down of inherited traits from one generation to the net
  - the transfer of a pollen grain to the egg production part of a plant

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**Please fill the table with the require information**

	<b>Sexual</b>	<b>Asexual</b>
<b>Parent</b>		
<b>Genetics</b>		
<b>Process</b>		
<b>Example</b>		

**Classify the following organism based on the way of reproduction**

- Lizards
- frogs
- insects
- Lion
- Bacteria
- Cats
- Unicellular Protists
- Fungi
- Plants
- Goats
- cows
- jelly fish

<b>Sexual</b>	<b>Asexual</b>

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**Choose the correct answer:**

- **the producing new members coming from a parent organism is:**
  - Fertilization
  - Reproduction
  - Sexual reproduction
  - Asexual reproduction:
  
- **the production of a new organism from a female sex cell and a male sex cell (Two parents)**
  - Sexual reproduction
  - Fertilization
  - Reproduction
  - Pollination
  
- 
  
- **the process of joining a sperm cell from a male and an egg cell from a female into a single unit**
  - Heredity
  - Fertilization
  - Reproduction
  - Asexual reproduction
  
- **the production of new organism from only one cell that genetically copies from the parent organism. (single parent)**
  - Sexual reproduction
  - Fertilization
  - Metamorphosis:
  - Asexual reproduction
  
- **asexual reproduction in plants that produces new plants from leaves, roots, or stems.**
  - Metamorphosis
  - Vegetative propagation
  - Pollination
  - Runners

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- **are plants stems that lie on or under the ground and sprout up as new plants. Ex: strawberry, aspen trees, and most grasses.**
  - Vegetative propagation
  - Metamorphosis
  - Pollination
  - Runners
- **the transfer of a pollen grain to the egg production part of a plant.**
  - Metamorphosis
  - Pollination
  - Runners
  - Fertilization
- **a series of distinct growth stages that are different from one another.**
  - Pollination:
  - Metamorphosis
  - Heredity
  - Vegetative propagation
- **the passing down of inherited traits from one generation to the net.**
  - Heredity
  - Vegetative propagation
  - Metamorphosis
  - Pollination:
- **Mammals are reproducing by:**
  - pollination
  - Reproduction
  - Sexual reproduction
  - Asexual reproduction
- **Sexual reproduction come from:**
  - One cell
  - One parent
  - Two parents
  - Single cell

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- **Asexual reproduction come from:**
  - pollination
  - fertilization
  - Two parents
  - Single cell
  
- **strawberry, aspen trees, and most grasses are reproducing by:**
  - Vegetative propagation
  - Metamorphosis
  - Pollination
  - Runners
  
- **An example of asexual reproduction is**
  - pollination
  - fertilization
  - splitting
  
- **Bacteria are reproducing by:**
  - Vegetative propagation
  - pollination
  - fertilization
  - splitting
  
- **fungi are reproducing by**
  - Pudding
  - pollination
  - fertilization
  - splitting
  
- **Runners are**
  - Pollination:
  - Metamorphosis
  - Heredity
  - Vegetative propagation