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| Science 9 | Unit A |
| Lesson 6: Asexual vs. Sexual Reproduction | 84 mins |

***Prelesson****:*

*Characteristics are passed from one generation to another and although the offspring “look” similar to their parents, they display different physical and behavioural characteristics.*

*In this section we are going to focus on the way characteristics are passed through sexual and asexual reproduction.*

*We will include the role of* ***DNA****,* ***genes*** *and* ***chromosomes*** *in carrying the characteristics from parents to offspring.*

***Introduction****:*

*Dandelions produce dandelion seeds during reproduction. Can you imagine the seeds becoming a spruce tree, poplars, or mushrooms?*

Asexual vs. Sexual Reproduction

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| One Species’ baby will grow up to be like their parents.  Reproductive Strategies: Methods used by an organism to reproduce  **Asexual Reproduction**  **Binary fission**: the Splitting of a single-celled organism into two new organisms which are approximately equal in size.  **Budding**: a smaller version of the organism grows out of the adult and when ready, becomes it’s own organism.  **Sexual Reproduction**  **Gametes**: a cell that has only one role… to find another gamete to join with during reproduction.  **Animal Reproduction Cells and Process**:  **Fertilization**: the combining of the male and female gametes making a zygote. (Two halves make a whole.)  The zygote undergoes cleavage, replicating until this multicellular life form is known as a embryo.  Plant Reproduction Cells and Process  Pollination: When pollen combines with the ovules of the plant.  The zygote grows into an embryo inside a seed. That seed protects the embryo until the conditions are right for growth of a new plant.  Draw the Parts of a Flower    Sexual  Adv.  LOTS of variation  Dis.  Lots of energy needed  Limited offspring  Organisms that Reproduce both Sexually and Asexually  Fungi/Aphids/Earthworms | Amoebas form new amoeba through binary fission.    *Very few animal species can reproduce asexually. He Hammerhead Shark has been known to go through parthenogenesis, virgin birth.*  My Mexican Hat Plant  Sex Cells, Sperm, Ova, Pollen  Sperm Cell: the male gamete in animal sexual reproduction. (Half the genetic material)  Egg Cell (Ova): the Female gamete in animal sexual reproduction. (Half the genetic material)    Pollen: male gamete of a plant, found on the Stamen, or ‘male’ part of the plant.  Ovules: Contain the female gametes of the plant. Found in the pistil  Asexual  Adv.  No Specialized Cells  Very Quick  Dis.  Very little variation |