Unit 2 Seed Dispersal Strategies

Content Area: **Science**
Course(s): **Horticulture 2**
Time Period: **March**
Length: **8 blocks**
Status: **Published**

Enduring Understandings

Seeds are the result of sexual reproduction in plants.

Seeds are a means of rapidly increasing the number of plants of each species.

Plants have evolved highly adapted mechanisms of seed dispersal.

Essential Questions

How is it ethically wrong to plant non-native species?

If plants can disperse their seeds naturally, why do consumers spend so much time and money in “gardens”?

Content

Vocabulary:

Seed coat, endosperm, embryo, primed/enhanced seeds, germination medium, flats, capillary action, hardening-off, transplanting, cotyledon, direct seeding

Skills

Prepare seeds for dissection and anatomy identification.

Describe the role of seeds in the life cycle of an angiosperm and identify the parts of a seed and their function.

Define seed germination and list the conditions needed for seed germination.

Design and implement an experiment which tests factors that effect seed germination.

Resources

Standards

HS-LS1-2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.

HS-LS1-4 Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.

HS-LS2-7 Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

	Observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.
SEP.1.a.1	that arise from careful observation of phenomena, or unexpected results, to clarify and/or seek additional information.
	Events have causes, sometimes simple, sometimes multifaceted. A major activity of science is investigating and explaining causal relationships and the mechanisms by which they are mediated. Such mechanisms can then be tested across given contexts and used to predict and explain events in new contexts.
SCI.9-12.1.3	Patterns of performance of designed systems can be analyzed and interpreted to reengineer and improve the system.
9-12.HS-LS1-4	Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.
9-12.HS-LS1-2	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
9-12.HS-LS2-7	Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

Resources

Text:

Introductory Horticulture 8th ed(Cengage Learning), Hardcover (2011)
by H Edward Reiley, Carroll L Shry

Greenhouse

Planting Materials including soil, water, seeds, Fertilizer.

Additional Seed Samples