## Walla Walla School Garden Lesson

# Title: 3<sup>rd</sup> Grade – Fall Seed Saving

Standards addressed: Life Science Standards EARL LS1A/3.L.2.3 Life Cycles (describe the lifecycle of a plant from seed to sprout, to adult, to fruits, flowers and seeds). EARL3.LS.2.2Explain how environmental conditions determine how well plants survive and grow

Unit connections: Science: Plant Life Cycles

**<u>Description:</u>** Students will learn the reasons for and process of saving different types of seeds from the garden.

Date: early October

#### **Objective:**

Objective: To understand the historical significance of saving and sharing seeds and importance of maintaining heirloom seeds for genetic diversity and how to save seeds. It is important to preserve the diversity of traditional food plants by growing and saving open pollinated seeds that produce hardy, nutritious plants, not dependent on chemical fertilizers or pesticides. **Time required:** 40 minutes

PreGarden Time: 10 minutes

Garden Time: 30

#### **Materials/ Preparation:**

Supplies: Plants in the garden that have gone to seed, packets to contain the seeds (1 or 2 labeled as examples), bin, cloth or paper for catching and holding seeds. Photos (printed or on Google Images) of the plants that they will be harvesting seeds from today. Seed drying area in the classroom or common area, a diagram of the life cycle of a plant

### **Class Discussion/Action:**

1. Today we are going to the garden to harvest seeds. Gardeners (and farmers) save seeds for many reasons: to save money, to retain seeds from plants well adapted to your garden's microclimate, to create new varieties adapted to your growing conditions and your tastes, to preserve the genetic diversity of our heirloom food plants, to retain plants' pest resistance, and lastly—even while it's easy and takes little time—saving your own seeds can be deeply satisfying. Watching your seeds grow and mature from a flower to seeds lets you connect with nature's cycles and seasons. Knowing how to produce the seeds that you will use to plant your garden each year can create feelings of self-reliance and empowerment.

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- 2. Turn-n-Talk to your elbow partner about any plants that you know are planted in our school garden. Create a list (you can help fill in any missing plants). If you can, sketch out a rough map of the garden on the board labeling where the plants are located. Tell the students which plants they will be harvesting seeds from today. Show photos of the plant type before going to seed and after and a close up of the seed.
- 3. Take one group (1/3 class) of kids to the garden at a time, while the rest of the class labels and decorates seed packets..
- 4. You want to find seeds that are from the strongest, healthiest plants with the qualities you want to pass on. Avoid weak, diseased plants or those with less desirable traits.
- 5. Identify any seed that is still moist. If additional drying is necessary, find a place in the classroom where seeds can be dried before packaging.
- 6. Dry vs. Wet seed harvesting: Dry seed plants are mature and dry on the plant like beans or lettuce. Wet seed plants are inside the fruit like tomatoes or squash. To harvest wet seed, remove the seeds, then let them sit in water for 3 days, rinse, and spread to dry.
- 7. Store them in conditions opposite of those that cause them to sprout. They will store best where it is dry, dark and cool.

#### Wrap Up:

Discuss the life cycle of a plant and the purpose of a seed. Review what a plant needs to grow (air, sun, water and nutrients). Based on this knowledge, how will we need to store our seeds so that they are still good until spring when we can plant them again? Why do we need to wait until spring to plant them again? Can seeds stay outside all winter and still grow into plants in the spring? **Vocabulary Words:** 

<u>Heirloom vegetable</u>: an old cultivar that is "still maintained by gardeners and farmers particularly in isolated or ethnic communities". These may have been commonly grown during earlier periods in human history, but are not used in modern large-scale agriculture.

What is an "heirloom"? The definition is open to dispute. But the term is usually applied to fruit, flower or vegetables varieties that were being grown before World War II.

Heirloom varieties are open-pollinated--meaning that unlike hybrids, seeds you collect from one year will produce plants with most of the characteristics of the parent plant. And that's key to their survival.