

Dear Educator:

Thank you for signing up for *Just Grow Up*, a 50-minute program that showcases the life cycles of some amazing animals and explores why understanding an animal's life cycle is so important.

Just Grow Up will answer the following Essential and Guiding questions:

- How does understanding an animal's life cycle help to protect it?
 - In what ways do animals, arthropods in particular, change throughout their life?
 - Why is understanding an arthropod's life cycle important?
 - What happens to arthropods when their needs are not met during a stage of development?
 - What actions can people take to protect arthropods at different stages of their life cycle?

The Oregon Zoo hopes that as a result of this program, students will be able to:

- Identify the four stages of all life cycles as birth, growth, reproduction, and death (K-pw)
- Describe why understanding an animal's life cycle is crucial to protecting it. (K-pw)
- Name one action they and their families can take to help protect checkerspot butterflies (K-r)
- Feel an increased appreciation for arthropods, and specifically for the local Taylor's checkerspot butterfly (C-a)

The program is correlated to the following academic standards:

Next Generation Science Standards:

3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.

Oregon Social Science Standards:

3.20. Identify how people or other living things might be affected by an event, issue, or problem.

In an effort to prepare students for their Zoo School program, please consider the following activities:

1. Examine the four stages of a butterfly's life cycle.

Exploring the Butterfly Life Cycle

https://ilearn.marist.edu/access/content/user/10127617@marist.edu/Portfolio_15/Exploring%20the%20Butterfly%20Life%20Cycle.pdf

2. Observe metamorphosis in action in this short video about Checkerspot butterflies from the Oregon Zoo.

https://www.youtube.com/watch?v=y02rDyTdZ_w

Continue the learning after we leave your classroom with the following enrichment activities:

1. Create a butterfly garden at your school.

Both the National Wildlife Federation and Oregon State University Extension offer valuable information and support to teachers and schools.

- National Wildlife Federation

<http://www.nwf.org/Garden-For-Wildlife/Create/Schoolyards.aspx>

For additional information contact Morgan Parks (parksm@nwf.org) at the National Wildlife Federation's office in Portland.

- Oregon State University Extension

<http://extension.oregonstate.edu/4hwildlifestewards/>

For additional information and support contact Maureen Hosty

(maureen.hosty@oregonstate.edu) at Oregon State University Extension 4-H –

Multnomah County.

2. Invite Metro to your classroom for a FREE puppet show that follows Sammy Salmon and Mother Nature as they help a friendly gardener learn how to cope with garden pests in her backyard. Students will be introduced to gardening strategies that help protect wildlife and water quality.

Mother Nature's Garden (Metro)

<http://www.oregonmetro.gov/tools-living/garbage-and-recycling/school-recycling/puppet-shows-grades-k-3>

3. Expand student understanding of life cycles by raising salmon or trout in a classroom incubator through the Oregon Department of Fish and Wildlife's (ODFW) *Fish to Fry* program.

<http://www.dfw.state.or.us/fish/step/>

For additional information contact Jeff Fulop (jeff.s.fulop@state.or.us) at the Oregon Department of Fish and Wildlife.