In the process, you will also explore the underlying role of DNA in the process of reproduction. In the following unit, you will explore the plant life cycle patterns that accomplish the same things in very different, yet very similar ways. In these next two units, you will explore two different life cycle patterns. Life cycle patterns of different life forms vary, but the outcome is always the same — continuity of life is ensured from generation to generation. In these next two units, you will explore two different life cycle patterns. Animals and plants both have life cycles that accomplish the same things in very different, yet very similar ways. In Unit 5 we’ll focus on the Animal kingdom as one example of a life cycle that involve sexual reproduction. In the following unit, you will explore the plant life cycle. In the process, you’ll also explore the underlying role of DNA in the process of reproduction.
Unit 6 | **Plant Life Cycles**

Plants are amazing organisms. They can reproduce at a distance, giving rise to offspring that are miles away. Some trick other living things into helping them reproduce. Others encourage predators to intentionally eat their young. Plants can even reproduce even after they die! It's all part of their amazing life cycle? In this unit, you will continue your study of life cycles, this time focusing on the Plant kingdom. You will explore flowering plants as an example of a plant, but plant life cycles have many different variations. During your exploration, you'll have a chance to compare the similarities and differences between the life cycles of plants are from animals. In doing so, come to an understanding of the complexity of life.

Unit 7 | **Sharing Your Life Science Lesson Plan**

In this final unit, you will have an opportunity to consolidate your knowledge of the life science concepts covered in the course, review any materials, ask any questions you may have, and finalize the life science lesson you have been working on throughout the course. You will share your final lesson plan with your classmates and ask for their feedback in general or specific areas. As you review the content for yourself, you will consider how your understanding of it will affect how you teach the applicable, grade level content to your students. You’ll have a chance to explore some of the Science Literacy Resources available for you to enhance your teaching and learning.

**Course Project**

The project for this course will be to design a life science lesson that incorporates NH framework standards appropriate to your grade level. A unit plan template is provided that uses the backward design process to guide you through the development of your unit. Upon completion of the course and project, you will be able to teach your students using the plan you developed.

**Course Goals**

*At the end of the course, you will be able to:*

- evaluate your personal understanding of living things (and life science in general).
- define what is living thing and what makes it and also be able to say what is therefore not living thing.
- tell how things are related (or not) based on looking at characteristics and/or classification systems developed by others.
- understand a life cycle and the basic characteristics of animal life cycles?
- identify the features of plant life cycles and be able to identify where flowering plants and trees fit in that cycle.
- identify ways to incorporate the NH Curriculum Framework Science Process Skills and Life Science into your teaching life science and to connect your Life Science Unit to the NH Science Curriculum and Assessment Resources

**Course Expectations**

Participants are expected to have regular access to the Internet, be able to use email, and navigate to websites and computer documents. When possible, participants will be asked to apply concepts and skills in a school setting. However, if the participant is not working in a school, the activities can be adapted or modified to meet individual needs.

This course is divided into seven one-week sessions beginning with an orientation week. Each unit includes readings, activities, and an online discussion among your classmates. The time for completing each session is estimated to be five to six hours.

Your instructor will review and assess your progress throughout the course. At the conclusion of each session, your instructor will update your course Gradebook. It is important to review the assessment criteria in the course rubric that will be used to determine your grades. In short, if you pay attention to the following, you will do just fine:

- Make sure you complete the readings each week and do the activities each week. Afterwards, your first posting in the discussion area should make reference to the readings and activities in such a way that your instructor can tell you read the material and engaged in the activities.
- Make sure you post at least 2 message replies in the discussion area each week, and that each posting contains substantial comments (i.e., a comment like “oh, that’s interesting” is NOT substantial).
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- Choose at least 2 different days each week when you will participate in the discussions. We suggest posting at least once within the first few days of the week, with your second post at least two days before the next week begins. If you only post on one day each week, you will not receive full credit because one posting a week does not help the group develop rich ongoing discussions.
- Make sure you post on time, not after everyone else has moved on to the next week’s discussion.

In order to be eligible to receive a Certificate of Completion, you must participate in all of the weekly discussions and complete all assigned tasks. Participants will be evaluated on the frequency and quality of their participation in class discussions. Participants are required to post a minimum of three substantial comments for each discussion, including one that addresses the discussion starter and demonstrates understanding of the course/unit concepts, citing examples from the readings. Additional postings should provide substantive comments to other participants, which are thoughtful, relevant, and serve to extend the discussion. Progress will be reviewed and assessed throughout the course. At the conclusion of each unit, the course Gradebook will be updated to reflect the quality of your participation in the course.

In order to receive a Certificate of Completion at the end of the course, you must earn a passing grade of 60% or more in the course requirements, earning at least 150 out of 250 points.

Graduate Credit

If you choose to take the course for graduate credit, there is an additional requirement to complete a Reflection Paper, which is worth an additional 50 points. The guidelines and rubric for this paper are posted in each course. You will need to (a) send your tuition registration form with payment directly to the university graduate studies office no later than the start of Unit 7 of your course and (b) notify your instructor that you have registered for graduate credit. If taking the course for graduate credit, a passing grade is 70% or more, earning at least 170 out of 300 points.