



OFFICE OF K-12 SCIENCE & PLANETARIUM

SCIENCE PARENT NEWSLETTER

THIRD GRADE

UNIT 2

LIFE SCIENCE

IN SCHOOL...

In the third grade performance expectations, students are expected to demonstrate grade-appropriate proficiency in asking questions and defining problems; developing and using models, planning and carrying out investigations, analyzing and interpreting data, constructing explanations and designing solutions, engaging in argument from evidence, and obtaining, evaluating, and communicating information. Students are expected to develop an understanding of the similarities and differences of organisms' life cycles. An understanding that organisms have different inherited traits, and that the environment can also affect the traits that an organism develops, is acquired by students at this level. In addition, students are able to construct an explanation using evidence for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. Students are expected to develop an understanding of types of organisms that lived long ago and also about the nature of their environments. Third graders are expected to develop an understanding of the idea that when the environment changes some organisms survive and reproduce, some move to new locations, some move into the transformed environment, and some die.

STUDENTS WILL KNOW...	STUDENTS WILL BE ABLE TO...
<ul style="list-style-type: none">• Living things adapt to their surroundings• Organisms have different inherited traits, and that the environment can also affect the traits that an organism develops• Variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.• When the environment changes some organisms survive and reproduce, some move to new locations, some move into the transformed environment, and some die.	<ul style="list-style-type: none">• Develop models to describe phenomena.• Use evidence (e.g., observations, patterns) to construct an explanation• Construct an argument with evidence.



OFFICE OF K-12 SCIENCE & PLANETARIUM

AT HOME...

<p>ASK YOUR STUDENTS...</p> <ul style="list-style-type: none">• How do organisms vary in their traits?• How are plants, animals, and environments of the past similar or different from current plants, animals, and environments?• What happens to organisms when their environment changes?	<p>ENGAGE YOUR STUDENTS...</p> <ul style="list-style-type: none">• Reproduction is essential to the continued existence of every kind of organism.• Plants and animals have a unique and diverse life cycle• Patterns of change can be used to make predictions.• Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing.• For a particular environments some kinds of organisms survive well, some survive less well, and some cannot survive at all.
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

IN THE COMMUNITY...

- Go to your garden or park and find a group of the same plant species. Are they all exactly the same or are there variations in heights or lengths or color? Is there an advantages to any of the individuals in the group because they are different?
- Select an organism in your neighborhood (plant or animal or fungus). Identify the organism and then research its life cycle. How does the organism you identified differ from you? Are there similarities?
- Think about all the different kinds of dogs in your neighborhood. Each breed typically serves a specific job or purpose. How does the dog's physical characteristic help the dog with its job?
- Why would a crocodile have a hard time surviving in the Fox River?

U46 STEM Expo....

- Provide a model that compares the life cycles of 2 different organisms.
- Complete an investigation that explores how altering an environment impacts the growth of a plant species and relate it to genetic variation.
- Participate or develop a conservation project that is related to genetics.