

## MAINE SCIENCE AND ENGINEERING STANDARDS

### 1-LS1 From Molecules to Organisms: Structures and Processes

**1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.**

Further explanation: Examples of human problems that can be solved by mimicking plant or animal solutions could include designing clothing or equipment to protect bicyclists by mimicking turtle shells, acorn shells, and animal scales; stabilizing structures by mimicking animal tails and roots on plants; keeping out intruders by mimicking thorns on branches and animal quills; waterproofing boots, jackets, gloves thereby mimicking animal feathers and, detecting intruders by mimicking eyes and ears.

Constructing Explanations and Designing Solutions, Structure and Function, Information Processing, Structure and Function

**1-LS1-2 Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.**

Further explanation: Examples of patterns of behaviors could include the signals that offspring make (such as crying, cheeping, and other vocalizations) and the responses of the parents (such as feeding, comforting, and protecting the offspring). Potential Maine connections include Maine animal sounds to signal their offspring (e.g. loons, moose, deer, coyotes, etc.) and how animals, especially birds, bring back food for their young.

Obtaining, Evaluating, and Communicating Information, Growth and Development of Organisms, Patterns