



**Quarrybrook**  
EXPERIENTIAL EDUCATION CENTER

## **Program Title: Animals and their Offspring**

**Audience:** K1 students

**Program Theme:** Some offspring resemble their parent animal, and spend time with them learning from them, while other species do not.

**Program Goals:** On this journey we will explore the various ways that animal offspring are similar to or different from their parents. Through stories, trail explorations, and sorting activities, students will learn about the major differences in parenting behaviors between mammals, amphibians, and arthropods.

### **Next Generation/Common Core Connections:**

**Topic:** K-LS1 From Molecules to Organisms: Structures and Processes

**Crosscutting Concepts:** Patterns

### **Program Outline:**

**Activity 1: “IF YOU WERE A BEAR” (30 min.)** – We will begin by reading a children’s book about growing up as a bear cub, and what we can do to help keep bears wild. We’ll discuss how a mother bear teaches her cubs where to look for food and how to prepare for winter.

**Objective:** Through story format, students will be introduced to the parenting behaviors of mammals.

**Intended Outcome:** Students will know that baby mammals closely resemble their parents and spend time with them, learning by watching and mimicking their actions.



Teachers and other adults will be helpful in maintaining a listening environment for the story, then encouraging students to share what they have learned.

**Activity 2: MAMA KNOWS BEST (45 min.)** – This trail exploration simulates how baby mammals must learn about survival and the world by watching and mimicking their parent. Three sub-teams of students will represent specific mammals (bears, beavers, and deer) searching for four necessary resources. They will not know what to look for, nor what to stay away from, until their “mammal mama” teaches them.

**Objective:** To illustrate the parenting behavior of mammals, students simulate learning from and imitating one adult leader.

**Intended Outcome:** Students will experience direct learning from a parent mammal.



All grown-ups will be very helpful in acting as the different “mammal mamas,” helping their team to successfully collect their four resources.

Activity 3: AMPHIBIAN AND ARTHROPOD INSTINCT (15 min.) – Next we will investigate the many other baby animals that don’t look like their parents! These species are not reared from birth by adults but instead survive on their own through instinct.

**Objectives:** Students will sort amphibian lifecycle cards into their correct order, then match juvenile and adult pictures of arthropod and amphibian species.

**Intended Outcome:** Students will know that species which undergo metamorphosis, such as amphibians and arthropods, have different juvenile and adult physical characteristics and usually do not interact.



Teachers and other adults will be helpful in guiding the students’ observations and decision-making during the sorting activities.

**Conclusion/Wrap-up:** We will review the differences between animals that nurture their young and animals that do not.

**Successful completion of this program will help support your students’ proficiency in NGSS**

**Performance Expectations:**

K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.

1-LS1-2 Determine patterns in behavior of parents and offspring that help offspring survive.

1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.