



MEXICAN JUMPING BEANS

SCIENCE SAFETY

PLEASE follow these safety precautions when doing any science experiment.

- **ALWAYS** have an adult present.
- **ALWAYS** wear the correct safety gear while doing any experiment.
- **NEVER** eat or drink anything while doing any experiment.
- **REMEMBER** experiments may require marbles, small balls, balloons, and other small parts. Those objects could become a CHOKING HAZARD. Adults are to perform those experiments using these objects. Any child can choke or suffocate on uninflated or broken balloons. Keep uninflated or broken balloons away from children.

INGREDIENTS

- Mexican Jumping Beans
- Hand Warmer

INSTRUCTIONS

STEP 1: Place one Mexican jumping bean on a flat surface. Count how many times your jumping bean jumps, in one minute, at room temperature. Record your data.

STEP 2: Activate the hand warmer. Place the hand warmer on a flat surface. Place one Mexican jumping bean on the hand warmer. Count how many times your jumping bean jumps, in one minute, on the hand warmer. Record your data. Did the Mexican jumping bean jump more at room temperature or on the hand warmer? Why?

STEP 3: Read Lucas and His Loco Beans, A Bilingual Tale of the Mexican Jumping Bean.

STEP 4: Develop a model, in the form of a drawing, to describe how the larva, in the seed pod, is part of a unique and diverse life cycle of the gray moth.

EXPLANATION

Mexican jumping beans are not beans; they are seed pods containing larva. It all starts when the female gray moth lays eggs on a blooming shrub in Mexico. The larva, in the seed pod, “jumps” when it gets too hot. The larva will continue to “jump” until it discovers a cooler spot. The larva will go through many changes until it become a moth, eventually emerging from the seed pod.



SCIENCE BACKGROUND

Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. A life cycle is a series of stages and changes that living things experience from birth to death.

I CAN STATEMENT

- ✓ I can develop models to describe that organisms have unique and diverse life cycles, but all have a common birth, growth, reproduction and death.

NEXT GENERATION SCIENCE STANDARDS CONNECTION

3 – Inheritance and Variation of Traits: Life Cycles and Traits I Patterns