THE STANDARD

Animal Behaviors & Plant Structures for Reproduction

Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

ANCHORING PHENOMENON

The Peacock's Ridiculous Tail

A male peacock spreads its tail. Brilliant blue and green, hundreds of eyespots, taller than the bird itself. It's heavy. It slows the bird down. It catches the eye of every predator in the field. Every survival rule says this should not exist. But peacocks have been carrying these tails for thousands of generations. Something about this tail must be working, even though it looks like a bad idea.

> DRIVING QUESTION
>
> *"Why does a trait that hurts survival still keep showing up generation after generation?"*

INVESTIGATIVE 1

The Dandelion Parachute

A single dandelion makes around 150 to 200 seeds. Each one has a tiny umbrella of bristles. A breath of wind launches the whole crop, and the seeds float a few feet or a few miles. Most land on driveways, lawns, or get eaten. A few hit dirt and sprout. Use this one to sharpen the probability lens the anchor is pushing on: low odds per seed, high seed count, strategy wins.

> DRIVING QUESTION
>
> *"Why does a plant invest energy in making hundreds of seeds when almost none of them will become new plants?"*

INVESTIGATIVE 2

The Coconut on the Beach

A coconut washes up on a beach with no palm trees in sight. Tough fibrous husk. Hollow inside, with a layer of food for the seedling. Light enough to float. It rode an ocean current from somewhere far away, possibly another island. When the tide leaves it on warm sand above the water line, the seedling inside can sprout. Same probability play as the dandelion. Different transport.

> DRIVING QUESTION
>
> *"How can a plant 'travel' across an ocean without being able to move?"*