**DETOUR**

**Team Name:** OGE 3 (Fantastic Five)

**Exhibit or Area of Zoo:** Flamingo

**List the observation, or discrepant event, that prompted your curiosity.**

Long, skinny, disproportionate legs of flamingo supporting main large body. Some are brighter pink than others.

**What SCIENCE questions or prompts come to mind?**

What is the structure of the leg/foot?

**What TECHNOLOGY questions or prompts come to mind?**

Prosthetic limbs?

**What ENGINEERING questions or prompts come to mind?**

How can fewer materials be used to build structures like bridges?

**What MATH questions or prompts come to mind?**

Length, mass, angle, tensile strength proportionate to mass supported.

**DETOUR**

**Team Name:** OGE 3 (Fantastic Five)

**Exhibit or Area of Zoo:** Nocturnal Barn

**List the observation, or discrepant event, that prompted your curiosity.**

Lots of bats in a small space.

**What SCIENCE questions or prompts come to mind?**

How can bats fly so fast in such a small area without hitting each other?

**What TECHNOLOGY questions or prompts come to mind?**

How is echolocation used in other applications?

**What ENGINEERING questions or prompts come to mind?**

Developing a plan to use echolocation to help people with visual impairments?

**What MATH questions or prompts come to mind?**

What wavelengths are needed to send signals? Speed of pulse from one location to another? How far is the range?

**DETOUR**

**Team Name:** OGE 3 (Fantastic Five)

**Exhibit or Area of Zoo:** Elephant

**List the observation, or discrepant event, that prompted your curiosity.**

Size of exhibit for animals. Group behavior – herds; protection.

**What SCIENCE questions or prompts come to mind?**

Does size of animal determine size of pasture or does the herd behavior have any impact on decision?

**What TECHNOLOGY questions or prompts come to mind?**

What type of wire is needed to contain animals?

**What ENGINEERING questions or prompts come to mind?**

Designing habitats to provide a safe environment for the elephants as well as humans?

**What MATH questions or prompts come to mind?**

Calculating are needed for habitat? How much material is needed to construct fencing?

**DETOUR**

**Team Name:** OGE 3 (Fantastic Five)

**Exhibit or Area of Zoo:** Sea Lion

**List the observation, or discrepant event, that prompted your curiosity.**

The efficiency in which the sea lion moves around the water using its flippers.

**What SCIENCE questions or prompts come to mind?**

What is the structure and function of the flippers and body shape?

**What TECHNOLOGY questions or prompts come to mind?**

How can the function of the flippers help humans swim more efficiently?

**What ENGINEERING questions or prompts come to mind?**

How can we use this to better develop underwater swim gear?

**What MATH questions or prompts come to mind?**

What dimensions or rations of flippers are needed to swim with ease and quickness?