**DETOUR**

**Team Name:** OKEECC 3

**Exhibit or Area of Zoo:** Flamingos

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

Their knees bend backwards.

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

Why are they coral colored?

Why do they eat upside down?

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

Could tracking devices be used to track migration patterns? Family groups? Social patterns?

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

What benefit does standing on one leg give?

Why do their legs bend backwards?

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

How long can they stand on one leg?

**DETOUR**

**Team Name:** OKEECC 3

**Exhibit or Area of Zoo:** Herpetarium

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

A pancake tortoise was on its back & flipped itself over.

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

If he couldn’t flip himself back over, how long would he survive?

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

Could we apply how he flipped himself over to robotics?

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

What are the benefits to having a flatter shell?

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

How frequently do they get turned upside down?

What is the average amount of time they spend on their backs?

**DETOUR**

**Team Name:** OKEECC 3

**Exhibit or Area of Zoo:** Giraffes

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

The long necks.

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

How many neck bones does a giraffe have?

How does that compare to humans? Birds? Other animals?

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

How could you model the POV of a giraffe?

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

Model with tinker toys the neck to leg ratio.

Is there a better ratio for stability?

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

What is the ratio between the length of the neck to the legs?

**DETOUR**

**Team Name:** OKEECC 3

**Exhibit or Area of Zoo:** Andean Condor

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

wingspan

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

Why do female condors have red eyes?

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

Could we use the condor’s eye to model a camera that could take pictures at a large distance?

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

How does a condor’s wingspan relate to its body size?

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

How fast can a condor fly?

How far can a condor fly?

**DETOUR**

**Team Name:** OKEECC 3

**Exhibit or Area of Zoo:** Elephants

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

Baby elephant

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

Do elephants ever lie down to sleep?

Where are an elephant’s mammary glands located?

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

What type of toy could you design with a computer to entertain elephants?

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

What is the tensile strength required to contain an elephant?

What are the mechanical advantages to large ears and a trunk?

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

How many pounds of food do elephants consume in a day? A week? A year?

What is the pound per square inch of pressure exerted on an elephant’s foot?