**DETOUR**

**Team Name:** DEQ Green 3

**Exhibit or Area of Zoo:** Birds

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

Color and variety of birds on the sign (especially Turaco).

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

How can such bright colors (feathers and beaks, etc.) help camouflage birds? Also, how does or can the Turaco easily lose its feathers (to avoid predation)?

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

How can we develop “break away” materials to prevent caputure (i.e. kidnapping; military) etc.

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

Strengths or forces needed to “break away” and types of materials (thread counts or types of fabric). Are layers of feather helpful? If so, how could layered “break away” clothing be beneficial?

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

Tensile strength of threads, thread counts. Which are stronger? What equations or patterns are best?

**DETOUR**

**Team Name:** DEQ Green 3

**Exhibit or Area of Zoo:** Indian Rhino

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

Rhino was pacing, showy ribs, coloration on different body parts. Why are shoulders and hips covered with “dots”? How can something so large move so quietly?

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

How strong do bones have to be to support that weight? How strong is the skin? Skin looks like it is layered; how thick or heavy are the pieces of skin?

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

Can we develop and armor that moves as easily as rhino hide? Can we determine how much force is needed to stretch/pierce the hide?

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

Need to develop gear in such a way that develops scales. Tests to develop and test material we create.

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

At what speed can a bullet penetrate this hide “armor”?

**DETOUR**

**Team Name:** DEQ Green 3

**Exhibit or Area of Zoo:** Island Life

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

Thought we were going to a beach party. It is called “Island Life”. But we ended up visiting reptiles ☺

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

What types of bacteria are found in komodo dragons that are so deadly to other animals? What are they immune to bacteria? How is his tongue able to “smell” up to six miles away?

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

How can we use these bacteria as a bioweapon? How can we develop a vaccine to save people from these bacteria?

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

Can we design a bacterial coating for bullets to use in warfare?

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

Could the bacteria survive in guns or weapons? What temperature, pressure, forces, etc. could affect their survival?

**DETOUR**

**Team Name:** DEQ Green 3

**Exhibit or Area of Zoo:** Flamingo

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

We all “ooh’d and ah’d” over their beautiful colors ☺

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

What color is a flamingo really? If it gets its color from food, what color will they be if their diet is changed? What is the effect on a flamingo’s life it is not eating shrimp & krill?

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

Can we devise a diet that allows us (humans) to change colors? Can we build a diet that protects us from the sun’s damaging UV rays?

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

Can cells be genetically modified or nutrient cells be altered to increase protection for the skin?

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

How much beta carotene is needed to maintain the flamingo’s color?