

BCPS Field Trip Request ID # 9556

Trip Request By

Trip Name

Trip Date

Approx. Pick-up Time

Return Date

Approx. Return Time

Class/Group

Student Count

Chaperone Count

Number of Vans/Buses

Common Carrier

Cost to Students

How will you pay for students who cannot afford the fee?

Place of Departure

Name:

Address:

City:

State: KY

Destination

Name:

Address:

City:

State: KY

Lesson Plans

Rationale for Field Trip

What educational objective does this field trip meet for your students?

“I can use biomimicry to design a solution to a problem. I can use the shape of an object to solve a given problem”

1-LS.1.1 Use materials to design a solution to a human problem by mimicking how plants and animals use their external parts to help them survive, grow, and meet their needs.

K-2-ETS.1.1 Develop a simple sketch, drawing or model to illustrate how the shape of an object helps it function as needed to solve a given problem.

How is this trip connected with or linked to the unit you are currently teaching in the classroom? What have you been teaching that leads to the value of this trip?

Students have been working on observing animals and plants in nature and their specific adaptations and functions in the classroom. They have also been working on using their observations to relate the adaptations and functions of plants and animals to come up with solutions to human problems. This field trip will help extend both of these standards and help the students relate to the standards in a real life way. Prior to the trip, the students will be informed that they will be expected to use the observations about solving problems using biomimicry from experiments and viewings at the Kentucky Science Center in the classroom. They will then experience the exhibits and movie while paying attention to the details that are important to the adaptations of the animals and how we might use those adaptations to solve problems in the classroom. When they return from the Science Center, students will complete multiple activities in science that will require them to recall the details that they saw and utilize them in activities where they will show how the fur of the animals can be used to solve the human problem of being cold in the winter by using coverings for warmth, and how the shape of an object can lend itself to helping the structure of a geometric building in math and science.

What instructional follow-up activities will the student do upon returning from the field trip?

The students will be informed that they will be expected to use the observations about solving problems using biomimicry from experiments and viewings at the Kentucky Science Center in the classroom. They will then experience the exhibits and movie while paying attention to the details that are important to the adaptations of the animals and how we might use those adaptations to solve problems in the classroom. When they return from the Science Center, students will complete multiple activities in science that will require them to recall the details that they saw and utilize them in activities where they will show how the fur of the animals can be used to solve the human problem of being cold in the winter by using coverings for warmth, and how the shape of an object can lend itself to helping the structure of a geometric building in math and science.

How will the field trip enhance learning more than the regular classroom instruction on this topic or lesson?

By allowing students to experience the movie and hands on experiments about animals in nature and using various shapes in problem solving, they will create schema that can be used in experiments in the classroom relating to the content. Permanent connections will be made with these experiences, allowing the experiments and lessons that we do in class to mean more to the students. All students will now have the same schema as a group and this will assist our students with no real prior knowledge about nature's animals and biomimicry. Students will then be able to complete experiments in a more meaningful way, simply because they saw and worked with biomimicry and shapes in hands on ways.

How will you evaluate the field trip?

We will evaluate the field trip via the follow up activities of asking students to illustrate what features of the animals and plants in the movie could help us solve provided human problems, having the students model the use of different geometric shapes in problem solving activities, and by explaining and writing about how using these problem solving skills will help them find solutions to future problems in their life and studies.

We will also ask the students for their input on how/if the field trip was meaningful for them.