THE UNIVERSITY OF ALABAMA® | College of Education
Office of Research on the Teaching in the Disciplines

Excellence in Teaching Awards

http://education.ua.edu/centers/ortd/

Call for Nominations

A teacher's impact upon their students cannot be underestimated. The University of Alabama's Office of Research on Teaching in the Disciplines wishes to recognize how Alabama teachers, pre-Kindergarten – 16, create excellence in their classrooms every day.

We are asking teachers to share their unique ideas or to nominate another teacher who makes learning engaging, interactive, and memorable for students.

A plaque for Excellence and Honorable Mention can be awarded in each disciplinary area. Certificates of Recognition also are awarded. **Note:** Teachers may submit a single lesson in only one of the following categories:

- Excellence in Cross-Disciplinary Teaching (P-12) (across two of the categories below)
- Excellence in Teaching Early Childhood Education (infants through 3rd grade)
- Excellence in Teaching English as a Second Language
- Excellence in Teaching English/Language Arts (P-12)
- Excellence in Teaching Gifted Studies
- Excellence in Teaching Physical Education (P-12)
- Excellence in Teaching Mathematics (P-12)
- Excellence in Teaching Science (P-12)
- Excellence in Teaching Social Studies (P-12)
- Excellence in Teaching Special Education (P-12)
- Excellence in Teaching with Technology in the Disciplines (P-12)
- Excellence in Teaching World Languages
- Excellence in Undergraduate Teaching (freshman-senior levels)

Teachers engaged in the National Board certification process can use participation in this award project to address the 4th category of "Learning Communities".

Deadline for submissions is February 15, 2019, 4:45 pm to cvsunal@ua.edu

Submission Cover Page

Use the following submission format to submit one lesson. The lesson demonstrates exemplary teaching in your discipline. Please submit the cover page and lesson plan as two separate email attachments to Cynthia Sunal at cvsunal@ua.edu).

Note: If you are nominating someone else, please provide an email address for the nominee and we will make a contact and request the information below.

1. **Title of Submission:**

2. **Category of Award for which this submission is intended (fill in the blank with one of the bulleted options below):**

   Excellence in _Cross-Disciplinary Teaching (P-12)_____

   - Excellence in Cross-Disciplinary Teaching (P-12) (across two of the categories below)
   - Excellence in Teaching Early Childhood Education (infants through 3rd grade)
   - Excellence in Teaching English as a Second Language
   - Excellence in Teaching English/Language Arts (P-12)
   - Excellence in Teaching Gifted Studies
   - Excellence in Teaching Physical Education (P-12)
   - Excellence in Teaching Mathematics (P-12)
   - Excellence in Teaching Science (P-12)
   - Excellence in Teaching Social Studies (P-12)
   - Excellence in Teaching Special Education (P-12)
   - Excellence in Teaching with Technology in the Disciplines (P-12)
   - Excellence in Teaching World Languages
   - Excellence in Undergraduate Teaching (freshman-senior levels)

3. **Contact Information:**
   a. Teacher's Name: **Lisa Rish**
   b. Teacher's Email Address: **lisa.rish@trussvillecityschools.com**
   c. Name of School/Institution: **Cahaba Elementary**
   d. Name of School System or Agency: **Trussville City Schools**

e. Name, Address, and Email Address of Principal or Immediate Supervisor: **Joy Tyner joy.tyner@trussvillecityschools.com**

f. Name, Address, and Email Address of Superintendent or Chief Administrator: **Dr. Neill** pattie.neill@trussvillecityschools.com

4. **Teacher's Biography** (50 words maximum)**:**

Lesson Plan Submission Form

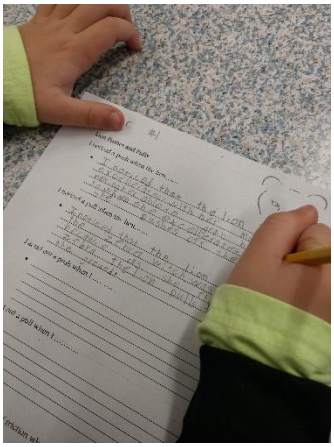
Not Just Lion Around – Pushes and Pulls +

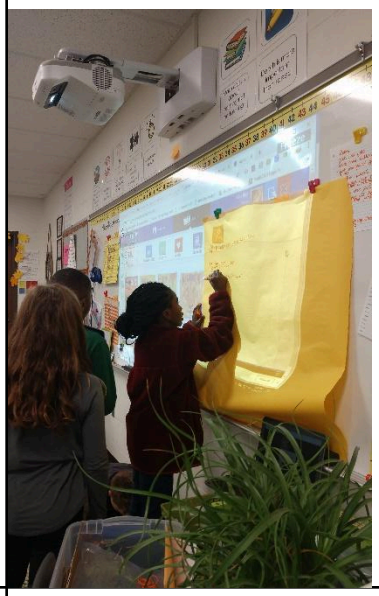
Lesson Plan Overview

Note: The boxes below will expand as you type into them.

Age, Grade Level, or Class Distinction of Students: (e.g., college freshmen)	Third Grade (This lesson could be used for grades 1 – 4)
Subject, Disciplinary, or Content Area:	Science, Social Studies, Comprehension and Collaboration (Pushes and Pulls, Animal Adaptations, Map Skills, Allocation of Limited Resources, Reading Comprehension, Other Cultures)
Purpose: (include connections to Alabama and national/core standards)	**The purpose of this lesson was to approach Pushes and Pulls from a non-traditional way that students would find captivating and exciting. This lesson also served as a bridge as our class went from studying physics to studying animal adaptations, interdependence, and our natural world. This lesson was also designed to be cross-curricular in order to get students to realize that all that we do, see and learn is interconnected.** **Next Generation Science Standard PS2.A: FORCES AND MOTION** *How can one predict an object's continued motion, changes in motion, or stability?*

	Interactions of an object with another object can be explained and predicted using the concept of forces, which can cause a change in motion of one or both of the interacting objects. An individual force acts on one particular object and is described by its strength and direction. The strengths of forces can be measured and their values compared. **AL Social Studies 3.2** Locate the continents on a map or globe **AL Social Studies 3.3** Describe ways the environment is affected by humans in Alabama and the world. **AL Social Studies 3.6** Identify conflicts within and between geographic areas involving use of land, economic competition for scarce resources, opposing political views, boundary disputes, and cultural differences. **AL Comprehension and Collaboration SL 3.1** 3.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *Grade 3 topics and texts*, building on others' ideas and expressing their own clearly. b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. d. Explain their own ideas and understanding in light of the discussion. **AL English Language Arts Informational Text** 3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. ● **National Geographic Learning Framework Connections** Attitudes – Curiosity , Skills – Communication and Collaboration, & Observation Knowledge- Wildlife and Wild Places

References/Source(s): List curriculum sources, if applicable, that you used in the lesson. **Example:** A premade lesson from a curriculum or teacher's guide that you have modified to meet the needs of your students. **Note:** Preference is given to originality and innovation.	No pre-made lessons were utilized. Materials were selected and aligned for the lesson by the teacher (Lisa Rish).
Explanation of Modification(s): (include brief description of how premade lesson or curriculum was modified to fit the needs of your students and the goals of the lesson)	
Picture(s): (not required; maximum of five allowed). All pictures must be inserted into this submission form and will not be accepted as separate attachments or links. Pictures may include student work, projects, screenshots, graphic organizers	  

etc. **Note:** Do not include pictures that display student faces or names. **To insert a picture**, first make sure the picture is saved to the Pictures or My Pictures location on your computer. Select the Insert option near the top, left of your screen. Choose Pictures. Select the picture you would like to insert. Select Insert.	 
PowerPoint Slide(s): (not required; maximum of ten allowed). All presentation slides must be inserted into this submission form and will not be accepted as separate attachments or links. **Detailed directions:** https://support.office.com/en-us/article/link-or-embed-a-powerpoint-slide-in-a-word-document-2e421b6d-dd5d-4e3b-a0c7-dc9732d0da01	**Simplified directions:** Open your PowerPoint. On the left side of your screen, you should see an area where small preview panes of your slide are visible. Right click the small preivew pane of the slide you wish to insert into Word. Copy the slide and paste it into this box. You can click on the picture to adjust its size by dragging the edges or by using the Format option at the top of the screen. **Delete the example image and information in this box from your submission** by using the Backspace or Delete keys on your keyboard.

Additional Materials: (including lists of manipulatives, art supplies, worksheets, graphic organizers, video links with brief descriptions, etc.)	*National Geographic Dissection a Lion's Run* https://www.nationalgeographic.org/video/dissecting-a-lions-run-man-v-lion/ This video shows a lion being timed while chasing bait on a tether. *National Geographic Dissection a Lion's Jump* https://www.nationalgeographic.org/video/dissecting-a-lions-jump-man-v-lion/ This video shows a lion jumping to get meat from a tree. *National Geographic Swamp Lion Defeated by Swamp* https://www.nationalgeographic.org/media/swamp-lion-defeated-swamp/ This video shows a lion losing traction and being unable to catch prey in a swamp. *Teacher Created Graphic Organizer (Rish)* https://docs.google.com/document/d/1eJOJuEfiqKYPAbf_UuyBkSQVu3ztGSokhN1IsdICdXI/edit?usp=sharing *National Geographic Studios and Passion Planet for PBS- Earth A New Wild – Last Lions -* http://www.pbs.org/earth-a-new-wild/episode-plains/hope-lion/last-lions-map/ This map shows where lions live now and where they historically lived. *From Mommy Wildest by EMPAPS (MESHACK) SAYIALEL, MAASAI* HTTPS://WWW.CBC.CA/NATUREOFTHINGS/M/BLOG/LIVING-WITH-LIONS-IS-BEAUTIFUL-SAYS-MAASAI-WARRIOR This article is written by a Massai warrior it describes how their culture (always intertwined with lions) has changed. *National Geographic Lion 101* https://www.nationalgeographic.com/animals/mammals/a/african-lion/ This resource gives many facts about lions. *Assorted classroom books about Lions and the online Subscription Book Service MyOn* *Lion Masks – (Foamies Lion Masks purchased at Michaels)* https://www.michaels.com/foamies-lion-mask/D063883S.html

	Paper and Markers for Group Charts
Objectives:	By the end of this lesson, students will be able to: ● *Identify Pushes and Pulls* ● *Recreate Motions and Identify the Pushes and Pulls* ● *Identify a place where they noticed friction or a lack of friction and be able to explain what effect the friction or loss of friction caused* ● *Use Spoken Communication and Listening skills with their peers* ● *Properly Identify where lions live and have lived on a map* ● *Recall and Restate one aspect of human/lion interaction/interdependence* ● *Recall and Restate what they learned from our reading passage about the Maasai and their relationship with lions*
Procedures: (Include procedures for differentiating instruction) **Exploration/Introduction**: Discuss the beginning of the lesson; including the rationale for what took place.	● Attitudes – **<u>Curiosity</u>** – Students are interested in the natural world. They are fascinated by the movements of the lions. They are also enthralled by the technology used in the videos – winches, slow-motion cameras, and radar guns are all fascinating to students. They ask lots of questions about these things! Students also were eager to show how they could recreate the movement of the lions and express their own understanding of the physics behind lion movement. ● Skills – **<u>Communication and Collaboration</u>** – Students listened to and watched the information given as scientists dissected the lions' movement. They were able to restate what they heard and have discussions about whether movements were pushes or pulls. **<u>Observation</u>** - Because this lesson had aspects of physics, wildlife, history and cultures – students began to see how interrelated our world is. We discussed that we must think as scientists and members of our natural community at all times. ● Knowledge- **<u>Wildlife and Wild Places</u>** – Students discovered how human and lion interaction has both negatively and positively impacted lions. Students have heard many negative examples of how humans affect animal populations. They were inspired by the Maasai story and were able to see that maybe they, too can make a difference.
Lesson Development:	1. We watched the Video (Dissecting a Lion's Run) - blob:https://www.nationalgeographic.org/d4801862-9932-4030-a821-

Provide an overview of how the lesson unfolded; including concise descriptions of lesson activities and rationales.	0756b78fded4 (Dissecting a Lion's Run). This video shows lions running after bait being pulled by a wench. We paused the video after different movements were viewed. We noticed pushes and pulls from the equipment, human researchers and the lions. We discussed pushes and pulls that we viewed as table groups. We also shared whole group and made a chart of what we had seen. Students will identify pushes and pulls.(15 minutes) 2. We watched the Video (Dissecting a Lion's Jump) - blob:https://www.nationalgeographic.org/eeb08409-a18d-4de1-8c7b-fb3e544c098d . This video shows scientists analyzing the jump of a lion as it strives to remove bait suspended in a tree. We paused the video and discussed pushes and pulls involved as the lion jumps, grabs, climbs and eats the bait. We also created a group chart to record the pushes and pulls that we had seen. Students will identify pushes and pulls. (10 minutes) 3. Students were asked to describe different examples of friction that they had seen in both Dissecting a Lion's Jump and Dissection a Lion's Run. We watched another video that clearly shows friction negatively impacting a lion's hunt. Swamp Lion Defeated by Swamp – blob:https://www.nationalgeographic.org/4114b1b4-256f-40e5-9b7b-d0a1ca4aca1a We paused the video and pointed out times that we saw the motion of lion and prey impacted by friction or lack of friction. We discussed that soon we would be discussing how animals are uniquely adapted to their ecosystems. Students will identify and describe how friction affects movement. (10 minutes) 4. Students completed a graphic organizer as they discussed the videos and after they acted out pushes, pulls, force and friction. https://docs.google.com/document/d/1eJOJuEfiqKYPAbf_UuyBkSQVu3ztGSokhN1IsdICdXI/edit?usp=sharing Students will describe and compare pushes, pulls, force and friction. (15 minutes) 5. We extended this activity by "becoming lions" and reenacting scenarios where we identified pushes, pulls, force and friction. Student's donned lion masks and we went outside to run and jump. We divided up into

	teams. One lion was active while three other lions observed the physics of movement. Students ran jumped and climbed as they recreated lion movements seen in the previous videos. Students will recreate pushes and pulls. They will describe their own actions and narrate the actions of others. (20 – 30 minutes) 6. We viewed a map http://www.pbs.org/earth-a-new-wild/episode-plains/hope-lion/last-lions-map/ . Students talked in small groups. We discussed in a large group what the colors on the map stood for. (Lion populations at different periods of time.) We also discussed why we thought lions were no longer in many areas. Students were able to identify many topics: human/lion conflict over resources and land (people wanted to live on the coasts), conservation efforts in national parks, change in habitat. We wondered what was different about the green spaces on the map (Where lions are now.) National parks. Students will read a map key and legend. They will identify where lions live now. Students will theorize about how/why changes have occurred. (20 minutes) 7. We delved further into our question about how lions and humans coexist in Africa. We did this by reading an article and discussing what we had learned. We learned that the Maasai people have gone from being known as lion hunters to being known as lion protectors. We brainstormed and discussed the ideas of eco- tourism. We also discussed the role of an apex predator. In order to relate this topic to our own environment - students discussed the role of local coyotes and how things could change if there were no more coyotes. Students will read and analyze a written passage. Students will analyze how a culture has changed. Students will identify an apex predator in our own habitat. Students will predict what our environment would be like without the apex preadators.(20 minutes) https://www.cbc.ca/natureofthings/m/blog/living-with-lions-is-beautiful-says-maasai-warrior 8. We ended the lesson with one more look at lions with the National Geographic Lion 101. https://www.nationalgeographic.com/animals/mammals/a/african-lion

	/ (15 minutes) Students will identify and share facts (not opinions) about lions. 9. Students continued the lesson with independent research on lions. (30 minutes – unlimited) Students will use technology sources to research and find the answer to their own questions.
Expansion/Application Activities: Describe how students were able to apply the knowledge/experience of the lesson. Describe any extending activities and provide the rationale for including these activities, reflections, projects, and/or discussions.	Students applied this lesson by: *1.* Acting out their own pushes and pulls. *Students loved this novel approach to studying pushes and pulls. They narrated their own movements as the mimicked the lions movements. This made physics fun and exciting!* *2.* Watching other students act out pushes and pulls. *Students narrated the movements of their fellow "lion" classmates. They also discussed the force used for different actions (stalking, jumping, running) Students began to see that force is not something to only be discussed during science experiments. They noticed that force, push and pulls are everywhere!* *3.* Analyzing and discussing how friction/lack of friction change the movement. *Students watched as the lions were unable to hunt when they slid in a swamp. We talked about animal adaptations and why the prey had an easy time of getting away. We also discussed times in our own live where we had encountered friction and the results.* *4.* Discussing pushes and pulls viewed on the exciting lion videos. *The discussion of pushes and pulls in the two lion videos included discussion of the movements of the lions, humans in the videos and the tools used to bait, track and record the lion movement. Students discussed in small table groups and came to the board to point at particular movements.* *5.* Recording their observations in a graphic organizer. *Students recorded observations and answered questions in a teacher made graphic organizer. This was done to give students another way to remember information that was verbally discussed and for them to further reflect upon their actions and the actions of their classmates.*

	6. Identifying where lions live on a map. *Students were shown a map that illustrated current and previous lion habitat areas. They used the map key to determine the changes. This was done to bring the map standards into the discussion in a real and authentic way. Students were excited about the map and eager to look at it carefully to piece together the lion timeline.* 7. Analyzing the map to determine what forces may be acting to reduce lion populations. (resources & interaction with humans) *Students were shocked at how much the lion habitat had shrunk. They were also fascinated as to why the lions lived in the center of the continent and in isolated pockets. There were many questions. Students were curious and truly longed to know what had happened. Some discussions of resources tent to become dry. They were excited to discuss lions and our own apex predators the coyotes. They realized that there is a balance in conservation and protecting human interests.* 8. Sharing their favorite lion facts. *Students had so many more questions about lions! They were begging to read more about them. Students were proud of what they had learned and wanted to share with their classmates. I love to see this excitement about learning in the classroom. Thinking deeply and thinking with enthusiasm are the two things that I value the most in my classroom.* 9. Further researching lions and delving deeper into the ideas that resonated with each student. *Students were encouraged to go and find the answers to their own particular questions. They were anxious to use books and the internet to answer their own questions.* Modifications and Extensions: If I had more time for this unit – or perhaps as an extension piece at the end of the year – I would like to add these activities. ● Students could create their own maps to show lion habitat. ● Students could look into the Maasai in much more depth. ● Students could research other places where humans are working to save animals. They can compare and contrast this to the Maasai lion experiences.

	• Students could compare and contrast the pushes and pulls of lions with those of other animals. They could create charts and graphs to compare force and direction. • Students could try to engineer something that could recreate the lion's pushes and pulls. Engineering and STEM. • Students could decorate the lion masks with African symbols and explore the cultural significance on the symbols. • Students could write a piece to narrate/explain what the lions are doing during the video. • Students could create a narrative piece from their own perspective or from the perspective of the lions or the scientists/Maasai interacting with the lions. • Students could create an animal movement museum display. Each student could create a poster/diorama etc. to highlight an animals unique movement skills.
Assessment: How have you identified measurable results that let you know whether your students have mastered the objective(s)?	A variety of assessments were used for this lesson. • Anecdotal Notes were taken during discussions. • A group list of identified pushes and pulls was created and posted in the classroom. • A check list was kept by the teacher that noted a plus for correct understanding of forces and a check for some misunderstandings of the topic. • Students completed a graphic organizer that demonstrated attention to the resources and understanding of the physics concepts. https://docs.google.com/document/d/1eJOJuEfiqKYPAbf_UuyBkSQVu3ztGSokhN1IsdICdXI/edit?usp=sharing • Videos and photos were taken as students acted out and narrated their own pulls and pushes. • Students added "lion facts" to a group poster to share their additional lion research.
Reflection: (How do these instructional decisions impact student learning?)	Students were able to display their knowledge in a variety of ways. Activities that appealed to many different learning styles were chosen. Students were able to complete work alone and in a group. Students had a great deal of choice. Instruction on many different topics was woven into one cohesive lesson. Physics, maps, cultures, adaptations, resources and more were intertwined.

	Students were challenged to think about topics and do more than just memorize a vocabulary word. Students realized that experiments that they had performed in the classroom with ramps and balls could be reenacted in a whole different way. The title of this lesson is – Not Just Lion Around – Pushes and Pulls +.
Any Additional Useful Information:	

If this lesson is from a unit, give a brief description of the Unit (not required):

This lesson was a used as a bridge between the traditional physics lessons of balls and ramps and lessons on living animals, adaptations and lifecycles. It was used to show that our science lessons and all of the disciplines that we learn about are interconnected. I want students to truly see that you cannot learn lessons in isolation. All topics, subjects and even our own actions are interwoven.

Teacher's description of why this lesson was exemplary when taught (may include rationale, innovation, impact etc.):

Students were excited about this non-traditional approach to physics. They were engaged in every step of the lesson. The lesson addressed many cross-curricular subjects. Students were also given a variety of ways to take in this learning. Movement, writing, discussions, lists, research, reading, analyzing, wondering and questioning were all a part of this lesson. Students learned a great deal about physics, they learned much about lions and engaged in some very high level discussions about the environment and our place in its preservation. They also were able to run, jump and roar like a pride of lions. I believe that this is an important juxtaposition that is needed for effective elementary education.

Excellence in Teaching Award Rubric

Teaching in the Disciplines

2018-2019

Date of Electronic Submission:

Submitted by:

Reviewer:

Scoring Criteria:
1 = Lacking Condition Components in Lesson Plan Submission
2 = Adequate Condition Components in Lesson Plan Submission
3 = Exemplary Condition Components in Lesson Plan Submission (Innovative, Original, Creative)

Lesson Plan Targets

Condition	Components	Comments	Score: 1-3
Lesson Plan Target	**Clear description of school profile**; classroom age/grade; subject and/or disciplinary area of lesson plan's target.		**/3**
Lesson Plan Purpose	**Clear purpose** for this lesson plan. Brief discussion of how this lesson follows previous lessons addressing a short and/or long-term goal. Includes Alabama and national/core standards.		**/3**
Lesson Plan Materials	**Clear listing** of all necessary materials.		**/3**
Lesson Plan Objectives	**Clearly written objectives** that interconnect purpose and appropriate assessments for lesson plan.		**/3**
Lesson Plan Procedures	**Clearly organized steps** in lesson plan instructional procedures that address:		

	• Concept Development • Prior Experiences and Knowledge • Introduction/Explanation • Objectives • Meaningful Practice • Expansion/Application • Appropriate Time Length of Activities • Accommodations for Diverse Learners • Closure • Meaningful Application • Transference of Lesson Concept to New Setting		**/3 x3 =**

Lesson Plan Assessments	**Copies of assessments** during and at the end of the lesson are included		**/3**

Instructional Reflection:	**How do these instructional decisions impact student learning?**		**/3**
Lesson Plan Supporting References	**Clearly stated supporting references** for the lesson plan.		**/3**

	Additional Comments:	**TOTAL** **/30**

Review Process

- All submissions will be acknowledged with a notification of receipt.
- Submissions that do not meet the submission guidelines will be returned with the opportunity to resubmit available until February 15, 2019 4:45 pm.

- Submissions must include only two attachments: 1) Cover Page and 2) the Lesson Plan Submission Form (including the rubric above). Google Drive and other links will not be accepted.
- Each award will be reviewed by a sub-committee of specialists from The Office of Research on Teaching in the Disciplines. Awards will be announced in late spring.

For further information contact: Cynthia Sunal, The University of Alabama, cvsunal@ua.edu, 205-348-8264