TEACHER WORKSHOP AND FIELDTRIP

CONTINENTS COLLIDE: The Appalachians and Himalayas

Sponsored by:
The McClung Museum
Department of Earth and Planetary Sciences
The Tennessee Geographic Alliance

Date and Time of Workshop: Saturday, February 18, 2012, 9:00am – 5:00pm (Register starting 8:30am)

Location of Workshop: McClung Museum on the UTK Campus

Intended Audience: Teachers of Grades K-12

Cost of Workshop: $25.00 (To cover lunch and fieldtrip transportation.)

Deadline for Applications: Monday, February 6, 2012

Content and Benefits:

This workshop is based around the special exhibit ***Continents Collide: The Appalachians and the Himalayas*** currently on display at the McClung Museum. While the Appalachian and Himalaya mountains are far apart in both distance and age, how they were formed is similar. The collision of continents, explained by the theory of plate tectonics, and the accompanying uplift and deformation of rocks by faulting and folding are a big part of the story of mountain building, but so is the subsequent sculpting of landforms due to weathering and erosion.

The workshop will begin with a presentation on the topic by exhibit curators, UT Professor and Distinguished Scientist, Dr. Robert Hatcher, and Assistant Professor, Dr. Micah Jessup. We will then tour the exhibit which focuses on the dynamic processes common to both mountain ranges. The exhibit includes models, a ten-minute original video, rock samples, and images to visually explain how and why the two large mountain chains formed and continue to change. Did the Appalachians once look like the Himalayas? Will the Himalayas eventually look like the Appalachians? The exhibit answers these questions and others, as it shows how geologists study the structure of the earth. Tennessee curriculum objectives covered in the workshop are provided on the last page of this flyer.

Lunch will be provided during which print and online resources related to plate tectonics and mountain building will be highlighted. There will be time available for discussion and Q & A with the UT faculty presenters.

After lunch we will go by van to the Townsend area of the Smoky Mountains to get up close and personal with the geology and geologic processes presented in the morning sessions. Dr. Hatcher will lead the fieldtrip. We will observe the Great Smoky fault, the Miller Cove fault, and well defined folding in various formations. If time allows we will also visit the Tuckaleechee Cove window. Participants should wear appropriate footwear and clothing and bring a rain jacket or small umbrella if rain is forecast. Dr. Hatcher has put together a detailed illustrated fieldtrip guidebook that will be distributed to participants.

Application Submission: Mail your application, with a $25 refundable deposit (checks made out to the Tennessee Geographic Alliance), to: Kurt Butefish, 304 Burchfiel Geography Building, University of Tennessee, Knoxville, TN 37996-0925
To be received **no later than Monday, February 6, 2012.**

Questions and Information: Kurt Butefish, Coordinator, Tennessee Geographic Alliance
865-974-4841 or kbutefis@utk.edu.

APPLICATION FOR THE WORKSHOP / FIELDTRIP

Continents Collide

Sponsored by:

The McClung Museum
Department of Earth and Planetary Sciences
The Tennessee Geographic Alliance

Knoxville – Saturday, February 18, 2012

At The McClung Museum
University of Tennessee in Knoxville

SUBMIT $25 WORKSHOP FEE
checks made to TENNESSEE GEOGRAPHIC ALLIANCE

Refunds will be made to participants who complete the workshop and to those whose applications come in after the workshop is filled.

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Name _____

Home Address _____
Street and No. City State Zip

Home Phone _____ - _____ - _____

School _____

E-Mail _____

Please return this application along with your $25 refundable workshop deposit via a check made to the Tennessee Geographic Alliance, TO: Kurt Butefish, 304 Burchfiel Geography Building, University of Tennessee, Knoxville, TN 37996-0925.

Applications are to be received no later than Monday, February 6, 2012

Curriculum Objectives:

Tennessee science curriculum:

Standard 7, The Earth
Standard 11, Motion

K—GLE0007.7.1, 0007.11.1
1—GLE0107.7.1, 0107.11.1
2—GLE0207.7.2
3—GLE0307.7.1

SPI 0307.7.1 Classify landforms and bodies of water according to their geological features and identify them on a map.

4—GLE0407.7.1
5—GLE0507.7.1

SPI 0507.7.1 Describe internal forces such as volcanoes, earthquakes, faulting, and plate movements that are responsible for the earth's major geological features such as mountains, valleys, etc.

7—GLE0707.7.3, 0707.7.4

SPI 0707.7.5 Recognize that lithospheric plates on the scale of continents and oceans continually move at rates of centimeters per year.
SPI 0707.7.6 Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.

HS Geology—Standard 4, Geological History, CLE 3205.4.6; Standard 5, Plate Tectonics, CLE 3205.5.4; Standard 6, Landforms, CLE 3205.6.2

HS Earth Science—Standard 3, Cycles in the Earth System, CLE 3204.3.1; Standard 4, Geological History, CLE 3204.4.5

Tennessee Social Studies curriculum:

Geography
3—3.3.02
4—4.3.03
5—5.3.01
6—6.3.02
7—7.3.02, 7.3.06
8—8.3.02, 8.3.03

HS World Geography—3.6