Pre- and Post-Assessment Survey
Geoscience Video Modules

Thank you for completing this survey. Your participation will help your teacher and video presenters to understand your background knowledge of earthquakes and to assess the effectiveness of the videos in conveying useful earthquake information to you. This is an assessment of your independent thoughts and opinions. Please do not share your opinions about these questions with others until the survey has been completed and collected by your teacher.

Please **DO NOT** place your name on this survey. If you have any questions regarding your participation in this survey, please talk to your teacher or contact Solmaz Mohadjer at solmaz.mohadjer@gmail.com

Your code name: ______________________

1. Please indicate your gender:
Female ☐   Male ☐

2. Please describe the cause(s) of an earthquake? ____
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3. In general, do you think it is possible to know where earthquakes can happen?
☐ Yes - ☐ No - ☐ Sometimes - ☐ I don't know - ☐ Other (specify: _______________________________)

4. Do you think it is possible to know the exact timing of earthquakes before they occur?
☐ Yes - ☐ No - ☐ Sometimes - ☐ I don't know - ☐ Other (specify: _______________________________)

5. Please describe where in the world you think earthquakes occur most often: _______________________________
____

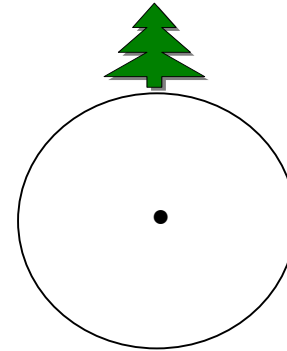
6. The image to the right is a representation of the Earth. The circle represents the Earth's surface, and the dot is the very center of the Earth. On this picture please draw the Earth's interior.

7. Review the images below. Circle all potential non-structural earthquake hazards that you see. You may circle as many hazards in each image as you wish.

Photo credit: AKDN/DRMI (2011)

Supplementary Table 2a: Statistically significant results
Null Hypothesis: Students' responses to pre- and post-survey questions are not significantly different.

	Q1	Q2	Q3	Q4	Q5	Q6
Pre- vs. Post-assessment (Tajikistan)					95%	
Pre- vs. Post-assessment (UK)		95%				95%
Pre-assessment (Tajikistan vs. UK)	95%				95%	
Post-assessment (Tajikistan vs. UK)	95%			95%	95%	
Individual learning (Tajikistan vs. UK)						

Supplementary Table 2b - Statistical test results

	KS test D-stat | D-crit	McNemar test chi-stat | chi-crit
Q1: What are the causes of earthquakes?		
Pre-assessment (Tajikistan vs. UK)	0.84, 0.30	
Post-assessment (Tajikistan vs. UK)	0.79, 0.30	
Q2: Is it possible to know where earthquakes can happen?		
Pre- vs. Post-assessment (UK)		6.66, 3.84
Q4: Where do you think earthquake occur most often?		
Post-assessment (Tajikistan vs. UK)	0.38, 0.30	
Q 5: What is the interior the Earth?		
Pre- vs. Post-assessment (Tajikistan)	0.32, 0.30	
Pre-assessment (Tajikistan vs. UK)	0.33, 0.29	
Post-assessment (Tajikistan vs. UK)	0.33, 0.30	
Q 6: What nonstructural hazards can you identify in the photos?		
Pre- vs. Post-assessment (UK)	0.44, 0.30	