ACTIVITIES FOR THE INCORPORATION OF SEISMOLOGY IN PHYSICS EDUCATION

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The objective of this work is to show a series of activities in which students can understand the natural phenomenon of earthquakes without leaving aside the learning proposed in the subject of Physics, with the use of technology (Espinola Castro & Pérez Campos, 2018). The Information and Communication Technologies used are: digital books, multimedia resources, email and APP´s, as well as writing reports in digital format and finally the use of the *Raspberry Shake* (https://raspberryshake.org/).

INTRODUCTION

Earthquakes are a natural phenomenon present in our daily lives. For this reason, high school students must be able to understand the phenomenon and at the level to be able to explain it.

The topic of Waves: mechanical and electromagnetic, responds and adapts adequately to the activities proposed in this work, generating in the student a basic knowledge about earthquakes and their relationship with physical concepts in the topic of waves.

CONCLUSION

The proposed activities can be applied in their entirety or in isolation since each one covers different learning with the use of technology, favors the introduction of seismology without affecting the contents that are presented in the study program. They show students that there are other sciences with a close relationship with physics, such as seismology, a science that should not be alien considering that everyday there are tremors in the city, even if they are not perceptible (Revista Quo, 2014)

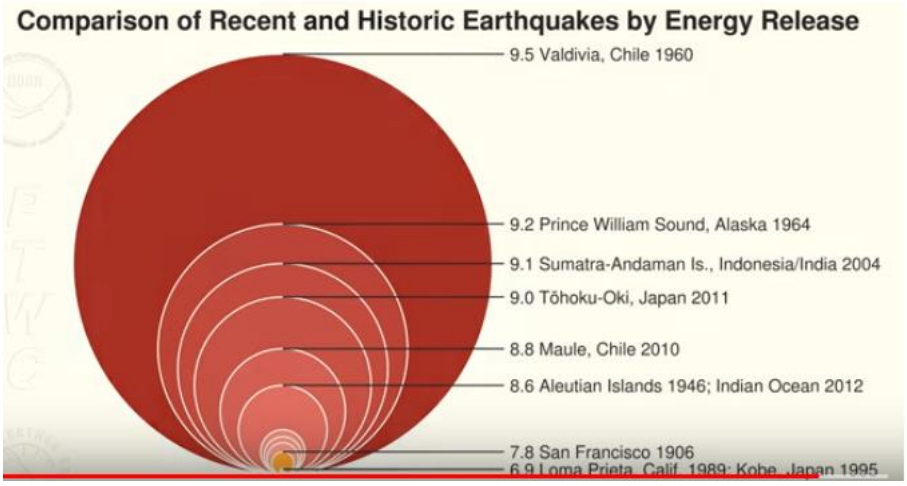

Figure 1. Representation of the energy in a earthquake

REFERENCES

Espindola Castro, V. H. & Perez Campos, X. (2018). ¿Qué son los sismos, donde ocurren y como se miden? *Revista de la Academia Mexicana de las Ciencias, 69*(3), 8-15.

Revista Quo México (2014). QUO en 30 segundos: ¿Qué es la magnitud e Intensidad de un sismo? de: https://www.youtube.com/watch?v=RKHERgxHeyc

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