Creating a Video to Introduce Williamsburg Public to Radon

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What is Radon?

- Colorless, odorless gas

- Produced within the uranium decay series

- When produced in soil or bedrock, can leak into houses

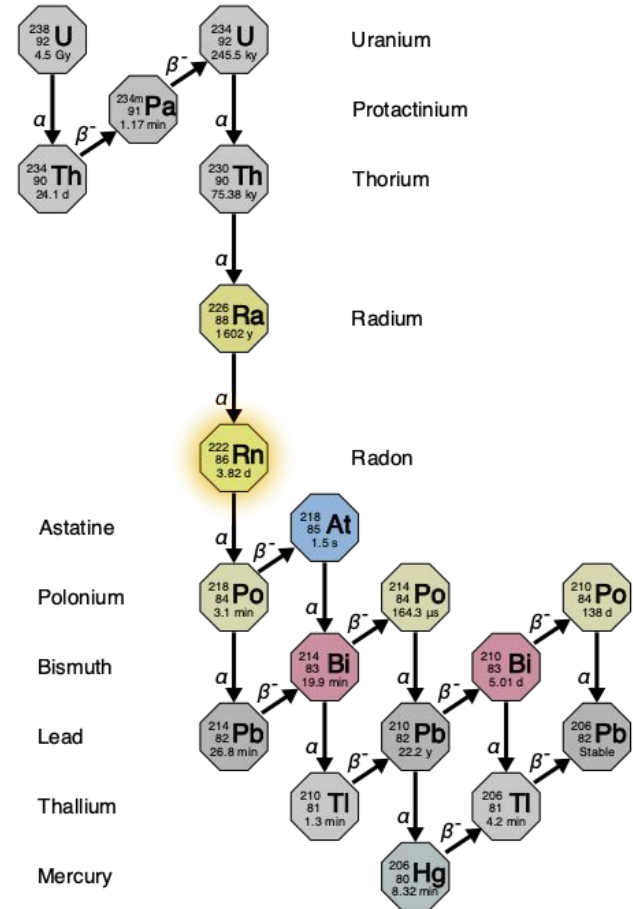- Major cause of lung cancer!

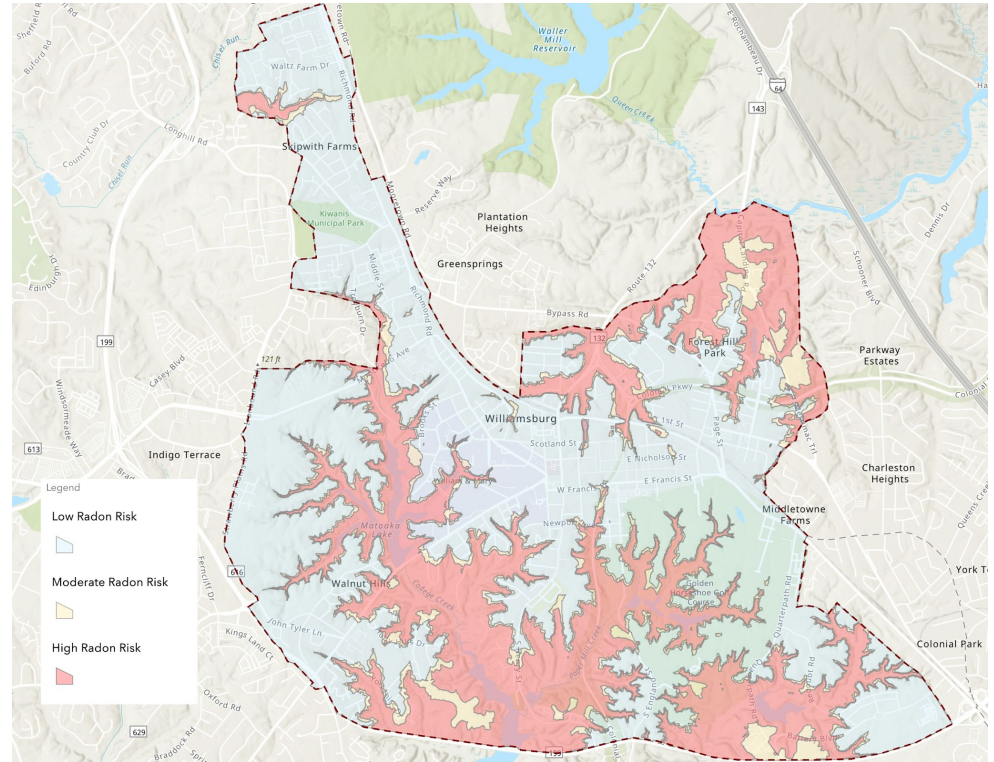- Can be mitigated

Previous work at William & Mary

- Radioactivity identified in Chesapeake whale bones (Singh et al, 1971)

- In '89, Jennifer Cooper measured a very high level of radon in a house!

- Many students continued testing homes for radon in the 90s

- Now, Jim Kaste and others are testing soil to better understand its extent

Photo courtesy Zoey Mondshine

Risk Map Creation & Validation

- Dorian Miller '22 used existing geologic data to construct a "risk map" of the Williamsburg area

- Zoey Mondshine '21 worked to validate the map, testing individual homes and mapping their results

Map by Miller et al, 2020

Need for awareness in Williamsburg

- Radon has been identified in Williamsburg

- Some houses have radon levels that are unsafe!

- Radon is easily tested, and can be mitigated

- Educating homeowners, realtors, and city officials is crucial

Project Goals

1. Introduce radon and how it is formed

2. Establish the health hazard of radon exposure

3. Convey the work of previous researchers at W&M

4. Encourage radon education, detection, and mitigation

5. Be accessible through the use of captions, colors friendly to color blind, etc.

Methods

Phase 1

- Define scope and audience

- Collect sources for literature review

- Meet with all stakeholders

Phase 2

- Review script with all stakeholders

- Collect video interviews

- Develop relevant graphics

Phase 3

- Review video with all stakeholders

- Add accessible formatting

- Get community member feedback

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Thanks

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