Madame Curie 1943

(Greer Garson, Walter Pidgeon) [2h 4m]

1. Have you had a family member or a friend who had to undergo radiation therapy for cancer?

2. Where was Marie at the beginning of the film and what was Marie’s maiden name?

3. What was her major at the University?

# 

4. Where was Marie from; where was her home land?

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5. Who did Marie work with closely in the laboratory while she completed her studies?

6. What was Dr. Curie’s opinion concerning women and science?

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7. What discovery did a colleague make that would eventually be a basis for Marie and Dr. Curie’s search for radioactivity?

8. How did the man make his discovery?

9. What were Marie’s plan for a profession?

10. Give two reasons why Pierre did not want her to go to Poland?

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11. What degree did Marie obtain from the university of Sorbonne?

12. How did she rank in her class?

13. How did Pierre persuade Marie to postpone her trip home to Poland?

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14. What was Pierre’s suggestion related to science to Marie while he proposed to her?

15. While on her honeymoon, Marie told Pierre about the experiment she wanted to explore. What was this about?

16. What would most people say about Marie and other scientists who explored unknown discoveries?

17. Why was Marie so discouraged? How many times had she checked the problem?

18. What elements had they found in the pitchblende rock which gave off “rays”?

19. What were the electrometer readings of the Uranium and Thorium in the crude pitchblende sample versus the pure Uranium plus pure Thorium?

20. How many elements of the periodic table were discovered by the Curie’s time? What were the first “elements” called 2000 years ago?

21. What was the reading of the electrometer for the one thousand of one percent unknown material, accounting for the discrepancy of numbers in #19?

22. What was the name of the new element that the Curie’s had discovered?

23. When the Curie’s presented their findings to the board of directors in order to apply for money and a laboratory to do their work, why were they turned down?

24. What place did the board offer them to use as a laboratory? Describe the conditions of the shed and the conditions they had to work under.

25. Write down several descriptions and steps concerning the first stages of their work?

26. What was the last problem they thought they needed to solve in their experiments?

27. In what year were these experiments taking place?

28. What happened to Marie’s hand and what could this lead to?

29. What did Marie realize about their new element, causing Pierre to allow her to continue despite the risk involved?

30. How many years total did they experiment to find Radium and how many crystallizations did they perform before getting to their final one?

31. What was left of their “radium” crystallization?

32. After considering for a time, what did they discover about the stain?

33. How long had it been since they took a vacation?

34. What prestigious prize did Marie and Pierre get awarded which is known world-wide?

35. What did the University of Paris grant them?

36. What happened to Pierre just before the ceremony to honor them?

37. Who came to encourage Marie in her mourning and what did he say to her?

38. How long did Marie work on Radium experiments?

39. What was Marie’s view of science related to helping the world?

Madame Curie

(Greer Garson, Walter Pidgeon)

1. Have you had a family member or a friend who had to undergo radiation therapy for cancer?

**My mother; Matt Coleman**

2. Where was Marie at the beginning of the film and what was Marie’s maiden name?

**Paris at the University of Sorbonne; Marie Strudowski**

3. What was her major at the University?

# Mathematics and Physics

4. Where was Marie from; where was her home land?

#### Poland

5. Who did Marie work with closely in the laboratory while she completed her studies?

**Dr. Pierre Curie**

6. What was Dr. Curie’s opinion concerning women and science?

# He believed that women should not be in science at all

7. What discovery did a colleague make that would eventually be a basis for Marie and Dr. Curie’s search for radioactivity?

The man discovered a photographic plate with a negative of a door key.

8. How did the man make his discovery?

## By accident; the man attempted to determine if rocks exposed to sunlight would absorb the sunlight, store and release it in the dark. It did not work.

9. What were Marie’s plan for a profession?

She was going to be a teacher in Poland

10. Give two reasons why Pierre did not want her to go to Poland?

## She was an exceptional gifted student, scientist and researcher; He was in love with her.

11. What degree did Marie obtain from the university of Sorbonne?

Masters of Physics

12. How did she rank in her class?

First

13. How did Pierre persuade Marie to postpone her trip home to Poland?

## They were going to go visit his parents in the French countryside

14. What was Pierre’s suggestion related to science to Marie while he proposed to her?

He would be her assistant and they could be partners for life as well as friends.

15. While on her honeymoon, Marie told Pierre about the experiment she wanted to explore. What was this about?

**Rays being given off by the pitchblende rock**

## 

16. What would most people say about Marie and other scientists who explored unknown discoveries?

**Their work is foolishness**

17. Why was Marie so discouraged? How many times had she checked the problem?

#### Her mathematical equations were not working out after checking them 200 times.

18. What elements had they found in the pitchblende rock which gave off “rays”?

#### Uranium and Thorium

19. What were the electrometer readings of the Uranium and Thorium in the crude pitchblende sample versus the pure Uranium plus pure Thorium?

#### crude pitchblende was 8; pure Uranium was 2 and pure Thorium was 2

20. How many elements of the periodic table were discovered by the Curie’s time? What were the first “elements” called 2000 years ago?

**78 elements in the Periodic Table; wind, fire, earth, air**

21. What was the reading of the electrometer for the one thousand of one percent unknown material, accounting for the discrepancy of numbers in #19?

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22. What was the name of the new element that the Curie’s had discovered?

Radium

23. When the Curie’s presented their findings to the board of directors in order to apply for money and a laboratory to do their work, why were they turned down?

**Marie was a woman, inexperienced and young**

24. What place did the board offer them to use as a laboratory? Describe the conditions of the shed and the conditions they had to work under.

#### A beat up shed with no equipment, no protection from weather

25. Write down several descriptions and steps concerning the first stages of their work?

**outdoors, melted crude pitchblende ore, added acid to dissolve the salts, melted residue, they worked 24 hours a day, they took in toxic gas fumes, Pierre built all of their equipment**.

26. What was the last problem they thought they needed to solve in their experiments?

**Barium and Radium could not be separated**

27. In what year were these experiments taking place?

**1899-1900**

28. What happened to Marie’s hand and what could this lead to?

**The doctor found burns on her hand which could lead to cancer**

29. What did Marie realize about their new element, causing Pierre to allow her to continue despite the risk involved?

**Radium could be used to kill harmful tissue like cancer – modern day radiotherapy**

30. How many years total did they experiment to find Radium and how many crystallizations did they perform before getting to their final one?

**4 years of work and 5677 crystallizations**

31. What was left of their “radium” crystallization?

**only a stain**

32. After considering for a time, what did they discover about the stain?

**They went at night and found that it was glowing … giving off rays.**

33. How long had it been since they took a vacation?

**Five years**

34. What prestigious prize did Marie and Pierre get awarded which is known worldwide?

**The Nobel Prize.**

35. What did the University of Paris grant them?

**A new lab, new equipment, assistants**

36. What happened to Pierre just before the ceremony to honor them?

**He was killed when he walked in front of a horse drawn carriage (street car).**

37. Who came to encourage Marie in her mourning and what did he say to her?

**Her Professor of Physics from the University of Sorbonne came and told her that few people could be so great as to touch the stars. She was one of those people and there were more stars to reach out to.**

38. How long did Marie work on Radium experiments?

**25 years.**

39. What was Marie’s view of science related to helping the world?

**Science would clear up evil, ignorance, poverty, war, heartache. Science brings knowledge and truth.**