

Name: _____ Date: _____

Dr. X and the Quest for Food Safety
Film Companion Question Sheet for Modules 2-3-4

Module 2 Questions

1. Why did Dr. Elsasser feed bacteria to baby chicks?
2. Explain another part of Dr. Elsasser's work that is related to food safety.
3. Dr. Patricia Millner conducts research on compost. What is compost and what characteristics does it have that help keep food from farms free of harmful bacteria?
4. What kind of bacteria is particularly affected by compost?

Module 3 Questions

5. What do cows, astronauts and elephants have to do with food safety and food processing?
6. What is pasteurization?
7. What is the time/temperature relationship?
8. How can an egg be pasteurized in the shell without breaking the shell or cooking the inside of the egg?
9. How can some kinds of milk stay fresh and safe without being refrigerated?

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10. What prevents astronaut food from becoming contaminated?
11. What is the benefit of UHT milk compared to conventionally pasteurized milk?
12. What is the Danger Zone in food safety and why do people need to know about it?
13. What do chilling, freezing, and heating do to bacteria?
14. What is irradiation and why does it make food safer?
15. Why can you use ultra high-pressure treatment with orange juice and not with a marshmallow?

Module 4 Questions

16. Why are supermarkets “major 4C areas,” according to Dr. X?
17. What is the cold chain?
18. What is the single most effective thing you can do at home to prevent contamination of your food at home?
19. In what ways have engineers helped to solve the problem of food safety? For example, what processes or equipment have been engineered to ensure safe food, eggs and milk? List at least three examples.