

Science of Microbes

Activity 12 And Now, What do You Know About Microbes

PowerPoint Slides and
Notes by Ron McNeel, DrPH

Activity by
Nancy Moreno, PhD,
Barbara Tharp, MS, Deanne
B. Erdmann, MS, Sonia
Rahmati Clayton, PhD, and
James P. Denk, MA



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And Now, What Do You Know About Microbes is the 12th lesson in the unit, *The Science of Microbes*. It addresses National Science Education Content Standards related to Inquiry and Life Science. See the downloadable lesson PDF (web address below) for a complete list of the standards addressed.

In this activity, groups will present their concept maps to the class and complete a post-assessment. The activity will allow students to demonstrate what they have learned over the course of this unit.

Viewing this presentation fulfills part of the requirements for completing the short course on *The Science of Microbes*, offered on BioEd Online for professional development contact hours. *The Science of Microbes* Teacher's Guide may be obtained in its entirety from the Center for Educational Outreach at Baylor College of Medicine (1-800-798-8244). You can download a PDF of this lesson and other lessons from the Science of Microbes unit (including a unit pre/post assessment) from www.BioedOnline.org or www.K8Science.org.

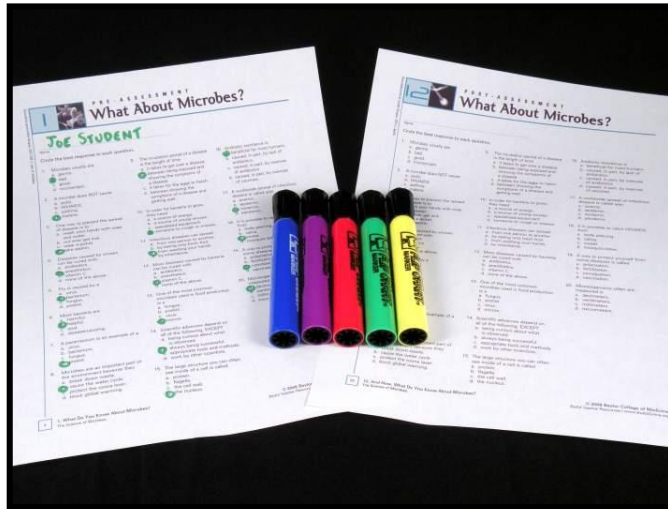
Reference:

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Materials for Each Group of Students



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Materials

For Session 1, divide the class into their original groups of 4 students each. Each group will need the following materials.

- Group concept maps
- Markers and writing materials

For Session 2 (post-assessment), each student will need the following items.

- Completed pre-assessment *What About Microbes?* Sheet (completed during Activity 1)
- New post-assessment *What About Microbes?* sheet

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Image Reference:

Denk, J.P. (2009). Materials for Activity 11. Baylor College of Medicine, Houston, TX.

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Safety Considerations

- Follow all instructions.
- Begin investigation only when instructed.
- Have a clear understanding of the investigation in advance.
- Wash hands thoroughly after the investigation.



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Safety Considerations

It is important that students always think about safety when conducting a science investigation. This slide may be used to review safety with your class before starting the activity. Also, keep the following points in mind.

- Always follow district and school safety guidelines.
- Have a clear understanding of the investigation in advance (practice any investigation with which you are not familiar).
- Continually monitor the area where the investigation is being conducted.

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Session 1

- Revisit the questions you had about microbes when you started this unit.
- Can you answer these questions now?
- In your original group, discuss your concept map and decide the most important findings made during this unit.
- Create a class concept map.



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Session 1: Concept Maps Discussion and Review

In Activity 1, students were asked to pose questions about microbes and indicate what they thought they knew about microbes. Revisit these questions with the class and ask, *Can you answer any of the questions now?* Discuss the students' responses.

Have students return to their groups to review the concept maps they started in Activity 1. Tell them to focus on their most important findings, and then have each group present one key finding to the class. Use the information presented to create a class concept map on the board.

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Session 2

- Each student completes the post-assessment.
- Compare your responses from the pre-assessment with those on the post-assessment.
- Do you have any remaining concerns about answers to the assessment questions?



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Session 2: Post-Assessment

On day 2, have each student complete the post-assessment. Once all students have finished, return each student's pre-assessment from the beginning of the unit. Have students compare their answers on both assessments to see how much they have learned over the course of the unit. Discuss any student questions or ask your own. Collect all assessments, as they will become part of each student's portfolio.

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