Grade: 6	**Strand: Puberty and Adolescent Development, STIs and HIV,**	**Lesson:** Sexually Transmitted Infections (STIs) and Contraception

Materials Needed:

- A Condom
- 30 numbered test tubes and test tube racks
- Small amount of Phenolphthalein
- Gallon of Distilled Water
- Beaker of Ammonia
- 1 Pipette
- STI Lab (takes about 30 minutes)
- STIs Current Data for Wisconsin

TEACHER RESOURCES ONLY:

Web links:

- Decision Making Model Framework (from Melissa Mead)
- Enter new link here from BR
- Types of Contraception

Other Notes:

1 Day Lesson

Learning Objectives:

- PD.8.DM.1-I (17)
- PD.12.DM.1-I (19)
- SH.8.CC.1 -I(69)
- SH.8.CC.2-I (70)
- SH.8.CC.3-I (71)
- SH.8.AI.1-I (72)
- SH.8.AI.2-I (73)
- SH.8.INF.1-I (74)
- SH.8.IC.1-I (75)

Lesson Overview:

- Students will learn that there are methods to prevent a pregnancy. The main method emphasized will be abstinence. Some other methods prevent sperm from reaching the egg (condom example). Some methods rely on hormones, some methods prevent an egg from implanting in the uterus. Students will be shown what a real condom looks like in class.
- Students will learn about bacterial and viral STIs.
- Students will learn about how STIs are and are not transmitted, symptoms, and treatments.
- Students will perform an experiment to show how quickly STIs can be transmitted.
- Students will understand that not all STIs show visible symptoms.
- Students will learn that some STIs are curable while others are not.

Lesson Plan: 2-3 Day Lesson

- Activity 1: Simulation of contagion spread using acid/base reactions
  Students will get a test tube and be asked to mix with as many people as they want in 2 minutes. They do not have to mix if they do not want to. After 2 minutes, the teacher tells them that one person was very sick but did not know it. The teacher will add a strong ammonia solution to each test tube to see who else got sick. Those that turn pink will have spread the contagian (link to contracting a sexually transmitted diseases). This will show how people cannot always tell who has an illness and how quickly illnesses can spread. The teacher will have a tube that no one mixed with to represent abstinence. Students work to identify Patient 0. See STI lab for more details.
- Contraception discussion points covered:
  - Main method stressed is abstinence - 100% effective
  - Other methods prevent sperm from reaching the egg (condom example). Some methods rely on hormones (the pill), some methods prevent an egg from implanting in the uterus (IUD).
- STI Discussion points covered:
  - Students will learn about bacterial and viral STIs.
  - Students will learn about how STIs are and are not transmitted, symptoms, and treatments.
  - Students will perform an experiment to show how quickly STIs can be transmitted.
  - Students will understand that not all STIs show visible/observable symptoms.
  - Students will learn that some STIs are curable while others are not.
- Question and answer session: Students anonymously submit questions for discussion in co-ed classroom setting.

Closure/Reflection:

- Teachers may end each day's lesson with a question and answer session, "exit slips," review, and/or formal or informal assessment.

Assessment of Learning (Formal):	Assessment of Learning (Informal):	Resources (Text and Technology):	Differentiation Strategies/Activities:
☐Check and correct homework	✓Observation	☐Text	☐Cooperative learning
☐Quiz	✓Walk around	☐Video	☐Varied grouping
☐Test	☐Signaling	☐PowerPoint	☐Adjusting questions
☐Presentation	☐Class work	☐Internet	☐Choice provided
☐Project	✓Oral questioning	☐Reference Materials	✓Movement
☐Writing Assignment	✓Discussion	☐Chromebooks	☐Contract
☐Individual	☐Conferencing	☐iPads	☐Peer editing/helping
☐Conference	☐Other:	☐Computer Lab	☐Stations
✓Other: Lab		✓Other: Science supplies	☐Think/Pair/Share
			✓Other: Parent opt out

STI LAB: TEACHER DIRECTIONS

Important Information

1. DO NOT TELL STUDENTS THIS IS A STI or ILLNESS LAB BEFORE YOU DO IT! Just say this is a fun chemistry lab.
2. You must use DISTILLED WATER!
3. We have enough supplies that you can set up for two classes ahead of time - Highly Recommended, as you will not have much time to set up between back to back classes!
4. Make sure to rewrite numbers if some are wearing off - use test tube pencil -not Sharpie! Only have adults write on the test tubes.
5. Test tubes must be washed out very well or you will have contamination for other classes. This means emptying into sink, rinsing out at least twice. Then clean with the test tube brush, and rinse at least 4 more times. Flip over on the test tube rack for a bit. (Our school water will turn the mixture pink, so most of it needs to be drained out!) If you have students do this, make sure they follow this procedure. DO NOT USE SOAP!
6. It is best to do the actual mixing part in the hallway, as it allows students to meander better and the infected students do not end up all sitting in one area of your room.
7. You usually will get down to Patient 0 and 1 and students cannot specifically identify Patient 0. That is OK.
8. Points to highlight:
   *This illness could be a cold, bird flu, or an STI. Don't make this just about STIs.
   * Discuss that all test tubes looked the same - no one knew who was sick - even the sick person didn't know! That can be true in real life!
   *Went from 1 sick person to 8 (or whatever number it was for you) in 2 minutes! Stress that it spreads exponentially!
   *You are the abstinence example - IF someone asks you to mix, say no thank you.
   *Only people that were truly safe were those that did not mix =abstinence - Safest choice in real life when it comes to sex.

   *TELL STUDENTS TO KEEP THIS A SECRET, SO IT CAN BE A SUCCESSFUL EXPERIENCE FOR ALL OF YOUR CLASSES AND FOR OTHER HOUSES.

LAB PROCEDURE

1. Use numbered test tubes (1-36) designated for this activity. They are in a special box in the science storage room. Only use as many test tubes as you need for the class - Make sure you have a test tube for yourself. Put test tubes in test tube racks.

2. Put DISTILLED water into each test tube (about ⅓ full)

3. Add 4-5 drops of Phenolphthalein to ONE test tube - Make sure to write the number of this test tube down, so you don't forget. This is Patient Zero. It is recommended that you use different test tube numbers for each of the classes you teach.

4. Each student gets a Lab sheet shown (Found at the bottom of this document) and writes his or her name/ and est tube number on the top.
5. Directions are on student sheet. - Model how to mix - one student pours ALL of their liquid into other students, and then they pour half back in the empty one - each one leaves with about the same amount of liquid. They must document name, number or both on their sheet.

6. **Set timer for 2 minutes - this will allow about 7-9 students to get infected.**

7. After two minutes are up, have them sit down - Say one of you were very sick when you entered class today but did not know it. We are going to find out who else got sick - squirt a small amount of Ammonia into each test tube. If it turns pink = sick.

8. Designate an area for sick people. They cannot share their slips with anyone! Those that are not sick sit somewhere else and represent the Winnebago County Health Department investigating this outbreak and are trying to identify Patient 0. . The kids raise hands to ask questions of the ill. They can take notes. Once sick students are eliminated, they can move out of sick area.

9. Reiterate these points:
   *all test tubes looked the same - no one knew who was sick - even the sick person didn't know! That can be true in real life!
   *Went from 1 sick person to 8 (or whatever number it was for you) in 2 minutes! Stress that it spreads exponentially!
   *Only people that were truly safe were those that did not mix =abstinence - Safest choice in real life when it comes to sex.

SEE NEXT PAGE FOR STUDENT LAB SHEET

Name_____ Test Tube # _____

You will have 2 minutes for this activity. You have that time to mix with as many people as you want. You do not need to switch with anyone if you do not want to. When you mix with another student, please write down the name and number of his/her test tube in the table below. If you need more boxes, you can add them below.

Name_____ Test Tube # _____

You will have 2 minutes for this activity. You have that time to mix with as many people as you want. You do not need to switch with anyone if you do not want to. When you mix with another student, please write down the name and number of his/her test tube in the table below. If you need more boxes, you can add them below.

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The Responsible Decision-Making Model™

1. Describe the situation that requires a decision.
2. List possible decisions you might make.
3. Share the list of possible decisions with a trusted adult.
4. Evaluate the consequences of each decision. Ask questions. Will this decision result in an action that:
   - is healthful;
   - is safe;
   - is legal;
   - shows respect for myself and others;
   - follows the guidelines of responsible adults, such as my parents or guardian;
   - demonstrates good character?
5. Decide which decision is responsible and most appropriate.
6. Act on your decision and evaluate the results.