

So, THAT’S How Babies Are Made!

A Lesson Plan from *Rights, Respect, Responsibility: A K-12 Curriculum*

Fostering responsibility by respecting young people’s rights to honest sexuality education.

NSES ALIGNMENT:

SH.5.CC.1 – Explain the relationship between sexual intercourse and human reproduction

SH.5.CC.2 – Explain the range of ways pregnancy can occur (e.g., IVF, surrogacy)

TARGET GRADE: Grade 5

TIME: 40 Minutes

MATERIALS NEEDED:

- Computer with speakers and internet connection
- LCD projector and screen
- Access the video, “Pregnancy and Reproduction Explained” (<https://amaze.org/video/pregnancy-reproduction-explained>)
- White board
- White board markers
- Student worksheet, “How Pregnancy Happens,” one copy for half the students in your class
- Teacher resource: “Sperm, Egg and Fertilized Egg,” one copy for half the students in your class, prepared as described in the Advance Preparation section.
- Exit slips, one half-page per student
- Scotch or other clear tape, enough so that you can share four small pieces with half the class
- Extra pencils in case students need one

LEARNING OBJECTIVES:

By the end of this lesson, students will be able to:

1. Define “sexual intercourse” within the context of human reproduction [Knowledge]
2. Describe what cells are involved in human reproduction (sperm and egg) [Knowledge]
3. Explain at least two ways in which pregnancy can happen that do not include sexual intercourse [Knowledge]
4. Name at least two reasons why someone might choose to use one of these methods [Knowledge]
5. Describe at least 2 ways in which economic disparities can impede some people from accessing sexual and reproductive healthcare [Knowledge]

LESSON RATIONALE:

This lesson defines sexual intercourse and the cells involved with reproduction (sperm and egg) using an AMAZE video. It also includes a discussion of how pregnancy can happen via other methods as well. Using a small group activity, this lesson also examines the economic reality of accessing reproductive health care and how economic disparities impact who can and cannot utilize these methods. This information sets the foundation for understanding a basic physiological process and underpins future lessons about pregnancy prevention.

ADVANCE PREPARATION:

- Make sure you are able to access the 2:32 minute AMAZE video, “Pregnancy and Reproduction Explained”. If necessary, ask your IT folks to give you access to this website: <https://amaze.org/video/pregnancy-reproduction-explained/>
- Make enough copies of the teacher resource: “Sperm, Egg and Fertilized Egg,” for half the students in your class. Cut up each sheet to create individual sets of all four images.
- Draw a basic diagram of the uterus and associated structures, using the student worksheet, “How Pregnancy Happens” as a guide, and cover it with the screen – or, if you will be showing the video on the white board, cover it with flipchart paper.

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- Print out enough copies of the exit slip handout for half the students, and cut the sheets in half so each student will get one half-sheet.

PROCEDURE:

STEP ONE:

Explain to the students that you are going to be talking today about how pregnancy happens. Say that you are going to start by watching a short video, reviewing what is in it and then doing an activity.

Show the 2:32-long Amaze video, "Pregnancy and Reproduction Explained."

NOTE TO THE TEACHER: *The video is designed to be cute and funny, so please normalize any laughter, whether because of the video or due to any discomfort with the content.*

Once the video is over, and as time permits, ask whether students have any questions about what they saw.

(5 minutes)

STEP TWO:

Pull up the video screen or take the flipchart paper off the white board to reveal the drawing of the uterus system you have there. Say something like, **"That video covered a LOT of information in a very short period of time – let's see what everyone remembers."**

The video said that two things, or cells, are needed to start a pregnancy. What are those two things?"

(Probe for, "an egg/ovum and a sperm" and write these words on the white board next to the drawing)

Ask, **"Who remembers where sperm are made?"** Probe for "the testicles." Ask, **"And where are eggs made?"** Probe for, "the ovaries," and label both ovaries in your drawing.

Using a white board marker, draw the steps of fertilization and implantation in the following order:

"Sperm from the testicles get inside the vagina."

"An egg comes out of one of the ovaries and travels down one of these tubes. These are called the 'fallopian tubes.'" (Label the tubes)

"Sperm swim up into the uterus (label the uterus) and into both fallopian tubes looking for an egg. If the sperm finds an egg, they all try to get inside. Usually only one sperm does, and then no other sperm can get inside."

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“When an egg has a sperm inside it, the egg has been fertilized.” (Write “fertilization” on the board). “Fertilization means adding something to make a living cell grow. Once the egg is fertilized, though, pregnancy hasn’t begun – one last step has to take place.”

“The fertilized egg goes into the uterus, and tries to attach itself to one of the walls of the uterus. That’s called ‘implantation.’ If it’s able to do that, pregnancy begins. (Draw fertilized egg attaching to the uterine wall). If the fertilized egg doesn’t attach, it breaks apart and leaves the body through the vagina.”

NOTE TO THE TEACHER: *You may get the question after number one about how sperm gets inside the vagina. Let students know you are going to be talking about that in a moment, and to hold on to that question.*

Answer any questions from the students. Say something like, “Okay, now you’re going to review it on your own!” and erase the drawing you had on the front board.

(8 minutes)

STEP THREE:

Break students into pairs (you can have a group of 3 if you have an odd number of students). Explain that every pair is going to get a worksheet with a drawing of the uterus/ovary system, and four smaller slips of paper, each of which has one aspect of fertilization and the start of pregnancy. Instruct students to do two things:

Label each part as indicated by the blank lines, using the word bank as a guide, and

Tape the four smaller slips of paper onto the diagram where the pair thinks they should go to recreate the story you just told of how pregnancy begins.

Go around the room and give each pair a worksheet and set of smaller papers. Tell them they can also draw on the diagram if they wish to show movement between the parts. As they begin working, come around with the tape, giving each pair four small pieces. Once done with that, go back to the white board and draw a clean uterus/vagina/ovary system like what they have on their worksheets. Move around the room to gauge timing, giving a warning five minutes before time is up.

(14 minutes)

STEP FOUR:

Once most pairs are done, or after about 10 minutes, call time. Ask for a volunteer pair to take you through the process, drawing it on the board as they explain. If anything is off or incorrect, pause and ask another pair to add with what they have. Continue on in this way until you have reviewed fertilization and implantation. Collect the pairs’ worksheets to assess understanding.

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(5 minutes)

STEP FIVE:

Say something like, **“Everyone’s done a great job of remembering how sperm get inside the uterus to try to create a pregnancy. The video we saw at the beginning of the lesson said there were three ways that this can happen. Who remembers what they were?”** (Probe for penis-vagina sexual intercourse, artificial insemination and in-vitro fertilization, writing each one on the board as they are shared).

NOTE TO THE TEACHER: *If students say “having sex,” be sure to use the language above to specify penis-vagina sexual intercourse to avoid confusion, since there are different kinds of sex. You also may need to give the answers for the two alternative fertilization methods.*

Say something like, **“Artificial or alternative insemination is when a healthcare professional helps someone become pregnant without them having penis-vagina sexual intercourse. The health care provider might insert sperm-filled semen into a vagina to try to create a pregnancy, or, they might take an egg from an ovary and insert sperm into it to fertilize that egg. Then that egg is placed up into the uterus in the hope that it will attach itself to the wall of the uterus, again, called ‘implantation.’**

Can anyone think of a reason why someone might choose one of these methods instead of penis-vagina sexual intercourse?”

Probe for:

- If a different-sex couple (one partner has testicles and one has ovaries) is trying to have a baby, and after trying a number of times it hasn’t happened, and they need some help
- If a different-sex couple (one partner has testicles and one has ovaries) wants to have a baby together, but either the partner with testicles’ sperm has a challenge swimming up into the fallopian tubes, or the partner with testicles doesn’t make enough sperm
- If a person with a uterus is 40 years old or older, it can be more challenging to become pregnant; therefore, they may choose one of these methods in order to increase their chances of success
- If someone with a uterus wants to carry a pregnancy, but either does not have a partner with a penis and testicles, or does not want to have penis-vagina intercourse in order to become pregnant
- If a lesbian couple, or a couple in which both partners have a uterus, wants to have a baby and one partner wishes to become pregnant

Say something like, **“The alternative methods that require a doctor’s help are very expensive. Even if someone has health insurance, these methods are rarely paid for completely by insurance. Each time someone tries one of these methods, they have to pay for them separately. Sometimes, the person with a uterus needs to take**

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medication to help pregnancy happen, which is also expensive. So each try at creating a pregnancy, even with health insurance, can be \$10,000 or more!”

Explain that, in the United States, people who tend to have greatest access to these types of technologies are those with money, those with high enough paying, full-time jobs with health insurance that covers sexual and reproductive healthcare, and those who are US citizens. Say something like, **“The fact that so many people cannot access sexual and reproductive healthcare, whether around pregnancy or anything else, is called a ‘disparity.’ A ‘disparity’ is a big difference between two things. In this case, if only some people can access sexual and reproductive health care and so many others can’t, there’s a big disparity in how at risk certain groups of people are for illnesses and overall poor health. This is an important issue we’re going to continue to talk about during the year!”**

(6 minutes)

STEP SIX:

Ask whether any questions remain. Distribute the exit slips and ask students to complete them before they leave.

(2 minutes)

RECOMMENDED ASSESSMENT OF LEARNING OBJECTIVES AT CONCLUSION OF LESSON:

Steps 1-4 are designed to achieve learning objective 1. Step 2 is designed to achieve learning objectives 2 and 3. Step 5 is designed to achieve learning objectives 3-5.

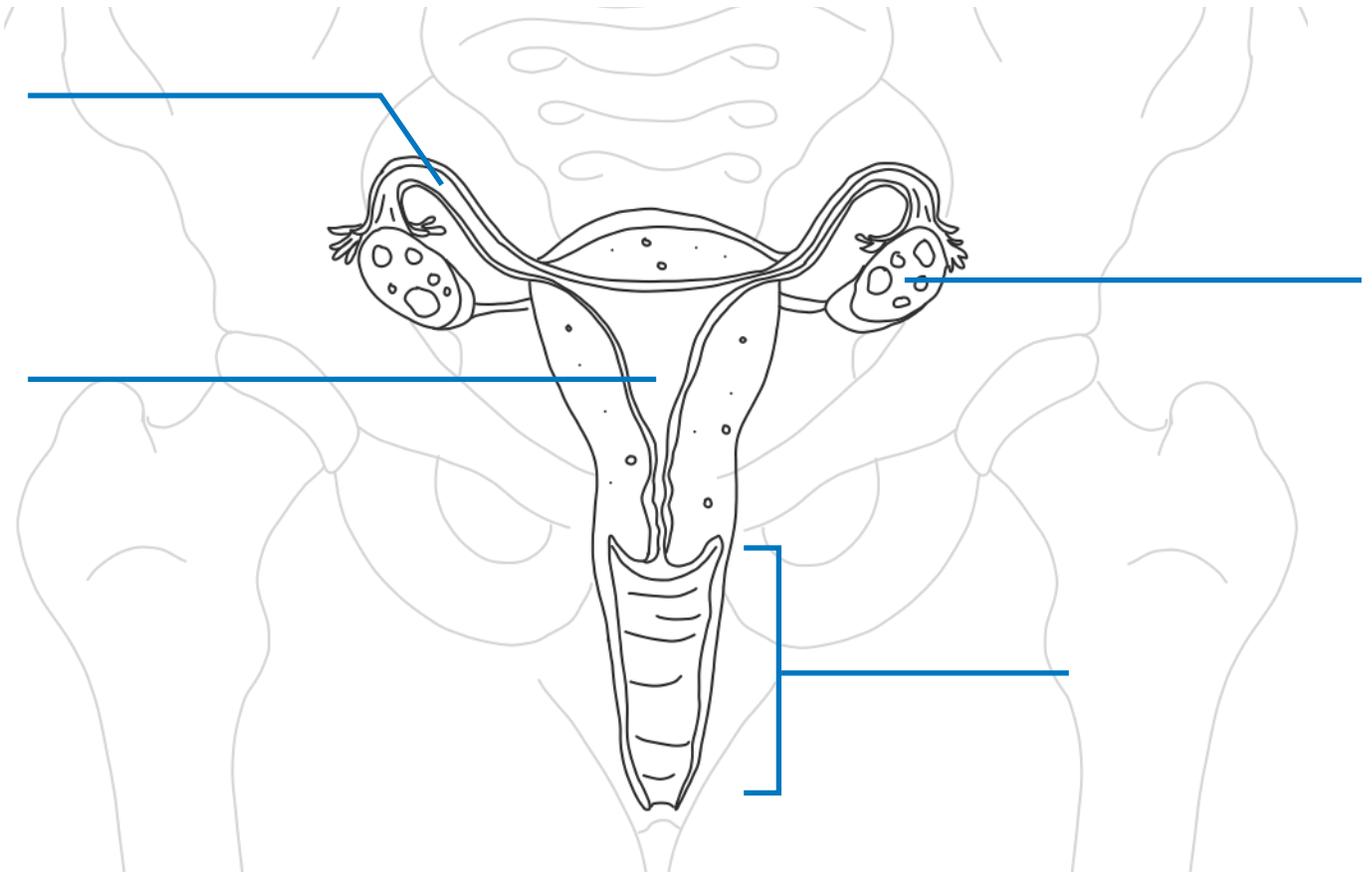
HOMEWORK:

Ask students to go online to find an example of one famous person or couple who had a baby using assistive fertilization technology, and one who did not. As time allows, the similarities and differences can be discussed briefly at the beginning of the next lesson.

Student Worksheet: How Pregnancy Happens

Name: _____

Name: _____



WORDBANK

UTERUS

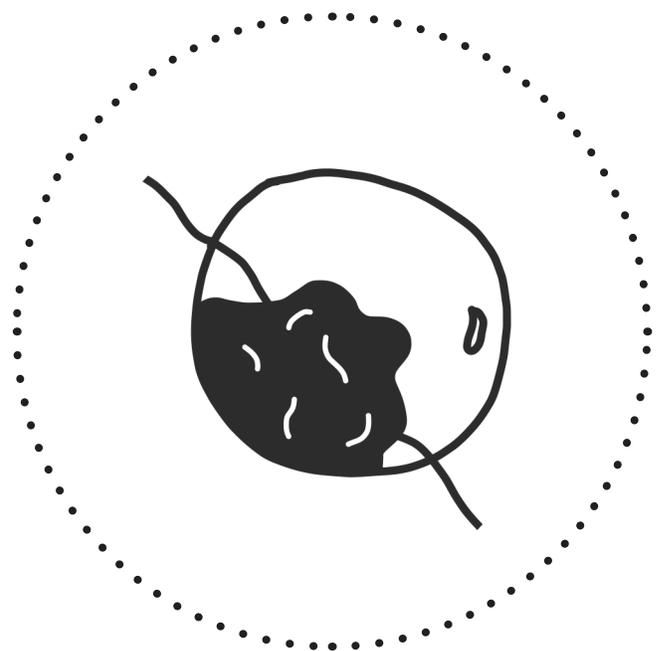
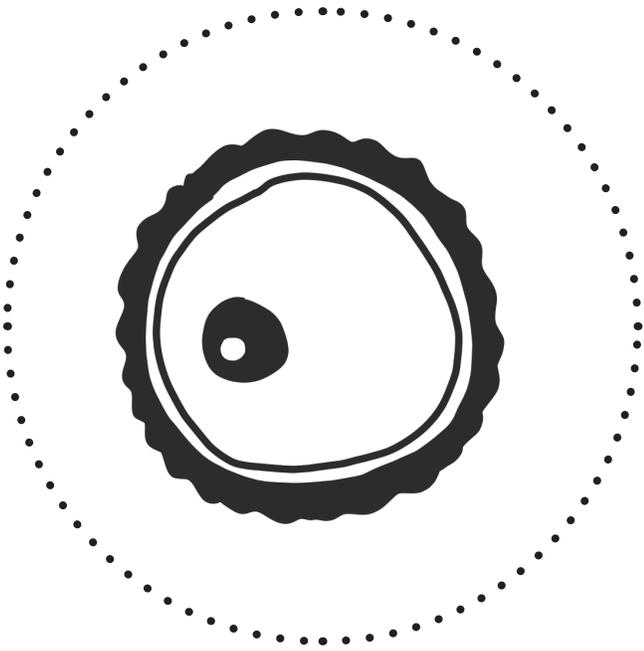
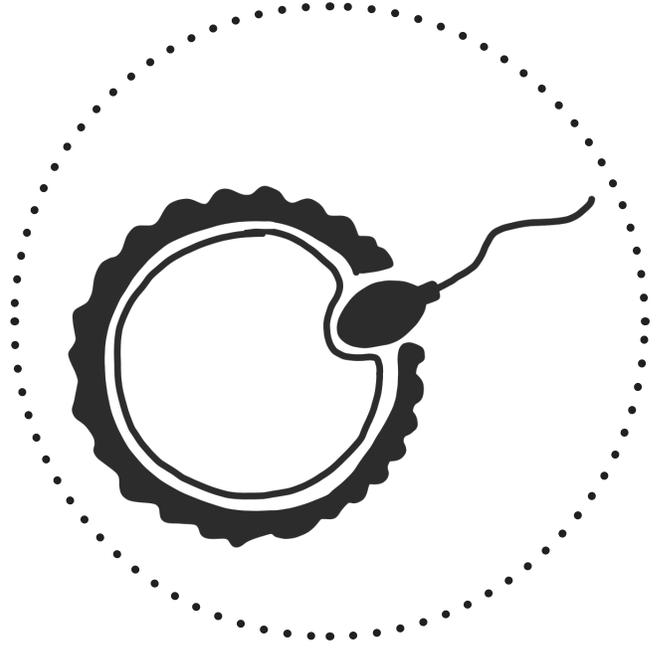
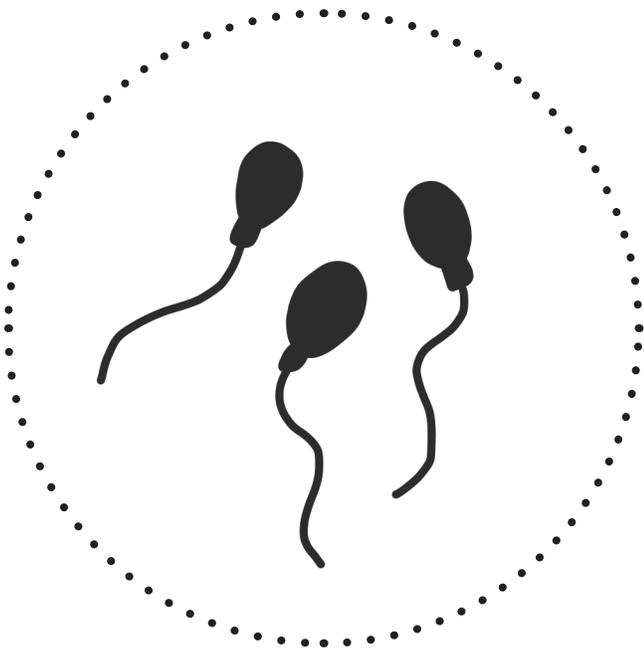
OVARY

FALLOPIAN TUBE

VAGINA

Teacher Resource: Sperm, Egg and Fertilized Egg

INSTRUCTIONS: Make enough copies of this sheet for half your students. Cut up each individual drawing to make individual sets of all four.



Exit Slip

Name: _____

1. When a sperm gets inside an egg, it's called: _____

2. What does an egg with a sperm inside it have to do before a pregnancy can start?

Exit Slip

Name: _____

1. When a sperm gets inside an egg, it's called: _____

2. What does an egg with a sperm inside it have to do before a pregnancy can start?
