

So, THAT'S How Babies Are Made!

NJ 2020 PERFORMANCE EXPECTATION ALIGNMENT:

2.1.5.PP.1 – Explain the relationship between sexual intercourse and human reproduction

2.1.5.PP.2 – Explain the range of ways pregnancy can occur (e.g., IVF, surrogacy)

TARGET GRADE: Grade 5 **TIME:** 40 Minutes

MATERIALS NEEDED:

- 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

LESSON RATIONALE:

This lesson defines the cells involved with reproduction (sperm and egg). It also includes a discussion of how pregnancy can happen. This information sets the foundation for understanding a basic physiological process and underpins future lessons about pregnancy prevention.

ADVANCE PREPARATION FOR LESSON:

- This lesson assumes that students have already received instruction on reproductive anatomy. Make sure students have received this content prior to teaching this lesson.
- 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.
- Hang or project a copy of student worksheet, “How Pregnancy Happens.”
- 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.

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

1. Explain the relationship between intercourse and 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 natural methods [Knowledge]

PROCEDURE:

Step 1: Explain to the students that you are going to be talking today about how pregnancy happens. **Say, “Have you ever used or seen someone use fertilizer in a garden? Why is that used?”** Prompt students to respond that it helps the plants grow. **Say, “Fertilization is adding two things together to help it grow. We’re going to talk more about that today.”**

STEP 2: Referring to the “How Pregnancy Happens” worksheet posted or projected, **say, “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)

Say, “Sperm is made in the man’s testicles. Eggs are made in the woman’s ovaries.”
Label both ovaries on the diagram.

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.”

“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, “Okay, now you’re going to review it on your own!”** and remove or stop projecting the worksheet.

(8 minutes)

STEP 3: 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 the same worksheet you had been using 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
- 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 hang or project a clean worksheet. Move around the room to gauge timing, giving a warning five minutes before time is up.

(14 minutes)

STEP 4: 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.

(5 minutes)

STEP 5: Say, "Everyone's done a great job of remembering how sperm fertilizes the egg to create a pregnancy. There are both natural and doctor-assisted ways pregnancy can occur. These include intercourse, artificial insemination, and in-vitro fertilization. Intercourse is a natural method between a male and a female where the penis and vagina meet. The doctor-assisted methods include artificial insemination and IVF.

Say, "Artificial or alternative insemination is when a healthcare professional helps someone become pregnant without them having 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.'

STEP SIX:

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

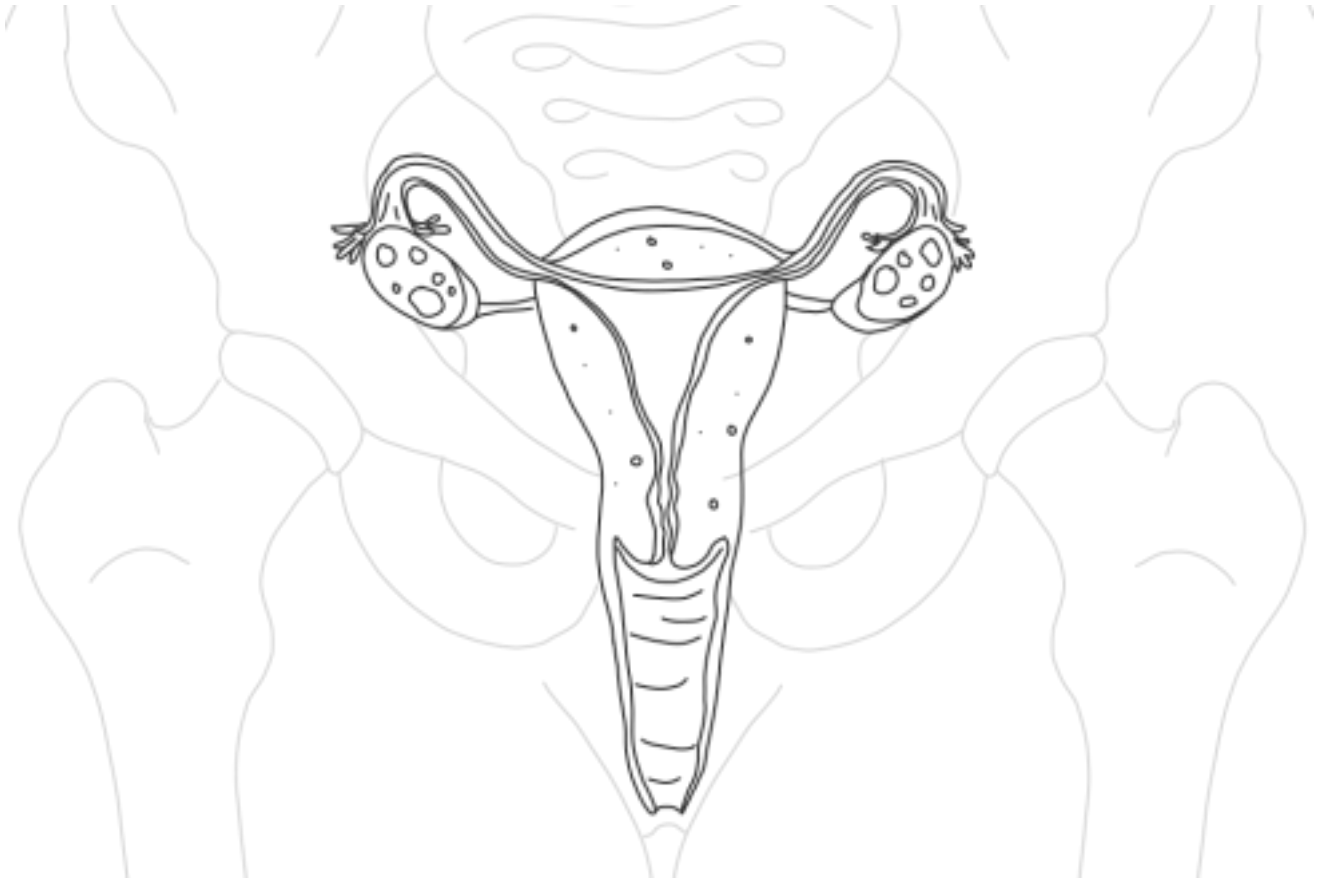
(2 minutes)

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.

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?

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