

# The Menstrual Cycle Play

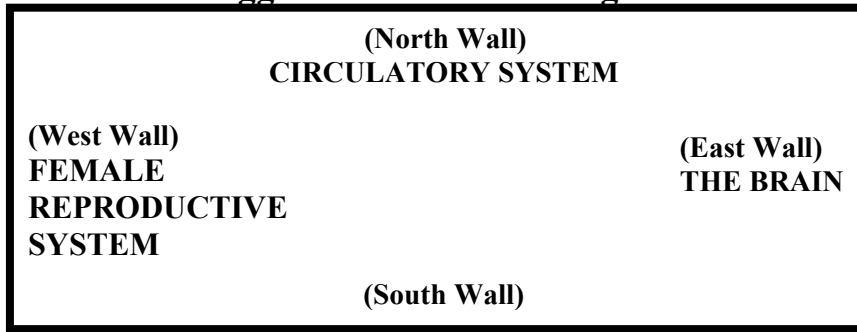
## THE SET:

- A. One side of the classroom represents the **Brain**.
- B. Other side represents the **Female Reproductive System. (FRS)**
- C. The **Circulatory System** connecting the other two systems.

## THE CAST:

Narrator	Hypothalamus - <b>Brain</b>
Pituitary – <b>Brain</b>	FSH – <b>in the circulatory system</b>
LH – <b>in the circulatory system</b>	ovaries – <b>FRS</b>
Follicle – <b>FRS</b>	ovum 344 – <b>FRS</b>
Uterus – <b>FRS</b>	blood in uterine wall – <b>FRS</b>
Estrogen – <b>in the circulatory system</b>	progesterone – <b>in the circulatory system</b>

## Suggested Classroom Diagram



## OPENING CURTAIN – DAY ONE OF MENSTRUAL CYCLE

**NARRATOR** – “This is a play about how hormones in the female body control her menstrual cycle. We have students playing the roles of the important glands, hormones, and other parts such as the egg and follicle. Sit back, listen up and learn. We hope you enjoy the production.”

**HYPOTHALAMUS** – (**says to everyone**) “Hey everyone, I’m the Hypothalamus. One of my jobs is to monitor the amounts of estrogen and progesterone in the blood. I now sense that the level of estrogen and progesterone in the blood is getting mighty low. That means its time to get another egg ready for fertilization just in case she and her husband decide it is time to start that family they’re always talking about.” I need to send some *gonadotropin releasing hormone* to the pituitary right away.” (**PAUSE AND SAY WITH EMPHASIS**)

“Yo, Pituitary, Pituitary, hello, are you there? I’m sending you some hormone to get you goin!”

**PITUITARY** – (**talking to the hypothalamus**) “I hear ya, I’m here. What’s up man?”

**HYPOTHALAMUS** – “Its time to get another egg going in the ovaries. So do your magic.”

**PITUITARY** – “OK BOSS, but you know I’m busy. I have to control the metabolism, and growth of this whole body. That’s a full time job.. for sure. I have lots of stuff going on. (**PAUSE**) That’s why they call me the “MASTER GLAND”.

**HYPOTHALAMUS: (sound sarcastic)** “You’re killing me here Mr. Master. So you’re busy, so what. Just get on with it.”

**PITUITARY:** “All right already, **(sounding irritated)** take a chill pill. I’m already making FSH, the Follicle Stimulating Hormone and LH, the Lutenizing Hormone.”  
**(Sound Proudly)** “I’m releasing them into the blood right now as we speak!”

**NARRATOR:** The PITUITARY sends FSH and LH into the bloodstream headed for the ovary. There they will stimulate the growth of a follicle and the maturation of an egg. This is all preparation for the possibility of fertilization.

**(FSH and LH go stand by the ovary)**

**FSH: (talking to the ovary)** “Hey babe, lets pick one of those eggs of yours and get it in a follicle. We have to get it ready for ovulation on the fourteenth day of her menstrual cycle. Ovulation is almost the biggest day in the life of an egg. That’s when the egg is released from the ovary and sent on the long journey down the fallopian tubes.”

**OVARY:** “Okie Dokie Artichokie! **(Singing)** “I have a feeling it’s a great feeling.”  
**(Stops singing)** “Let’s use my lucky number this month. How about egg number 344?”

**LH: (Talking to Ovary)** “That’s up to you. I’ll go along with any egg you pick, babe.”

**FOLLICLE: (Jumpy)** “Here I am. Where’s the egg? I’m ready to go. Where’s the egg?”

**NARRATOR:** The selected egg matures on the inside of the follicle. It prepares for ovulation.

**FOLLICLE:** “Come here to me, you little huevo.”

**NARRATOR:** “The follicle helps the egg mature.”

**FSH AND LH: (to the follicle, together)** “We’re here to help you mature egg 344. Let’s do it!”

**LH: (to everyone sounding pompous)** “And I, LH, also have the grand duty of ensuring that the follicle knows that it is time to produce ESTROGEN. So, Madame Follicle, Let’s get to it.”

**FOLLICLE:** “Sure thing. **(Estrogen comes over next to the Follicle)** ESTROGEN is good. **(to no one in particular)** We need it to prepare for a pea in the pod by increasing blood supply to the uterus. Do ya’ think she’ll get a bambino with that old goat?”

**Egg 344:** “I’m sure we’ll get pregnant this time. I mean, seriously, she isn’t getting any younger.”

**ESTROGEN: (jumpy)** “I’m estrogen! I feel it! It’s my time! Step aside! I’m on my way to the uterus to do THE MOST important job!” **(Moving to the uterus)**  
“My job! I love my job! On with the blood! I love my job! I love me!” **(Links arm with uterus)**

**NARRATOR:** "The effect of Estrogen, FSH and LH build for the next 14 days, and the uterus walls thicken with more blood. This blood will help supply nutrients to the developing fetus... if she gets pregnant, that is. On the 14<sup>th</sup> day, a large amount of LH is released, causing the follicle to rupture and release the egg." **(turn to the class and ask)** "What is this event called?" **(wait for the answer....Ovulation)**

**FOLLICLE: (Pushing egg away)** "Goodbye egg 344. Adios. See ya. Good luck! I hope you meet up with the Sperm - Wormy of your dreams in the next 48 hours."

**EGG 344:** "It's been great. Thank you for the loving care. See ya, folli-... OOPS. Guess we can't call you 'follicle' can we? You're **Corpus Luteum**, now, aren't ya?"

**CORPUS LUTEUM: (talking to the egg)** "Without you, baby, I'm different. Now my job is to make Progesterone to help with the pregnancy, if it happens that is. I have a new name. Now I'm the **Corpus Luteum**."

**NARRATOR:** "The egg travels through the oviduct (fallopian tubes) on the way to the Uterus. If fertilization occurs, it usually happens in the oviduct."

**(Egg 344 drifts over to the uterus and stands close)**

**NARRATOR:** "Now progesterone and estrogen released from the Corpus Luteum will help the build up of the blood lining in the uterus."

**(Estrogen and Progesterone leave the Corpus Luteum and each links an arm of the uterus.)**

**(Every minute one of the bloods stand close to the uterus to show the build up of blood.)**

**NARRATOR:** "These high levels of Estrogen and Progesterone in the blood stimulate the Pituitary to slow down the production of FSH and LH. This is called a FEEDBACK SYSTEM because the estrogen and progesterone feed back information to the pituitary gland."

**ESTROGEN: (shouting, together with Progesterone)** "Hey Pituitary my level is high so stop making LH." **(repeat once)**

**PROGESTERONE: (shouting, together with Estrogen)** "Hey Pituitary my level is high so stop making FSH." **(repeat once)**

**NARRATOR:** "This time the egg is not fertilized and the corpus luteum disintegrates because It's job is done."

**CORPUS LUTEUM: (shrinking to the floor)** "Help, Help I'm shrinking" **(repeat once with a weakening voice.)**

**NARRATOR:** "Days pass. The Corpus luteum is gone and the egg was not fertilized so they are not making Estrogen. On about the 24th day of the cycle the levels of Estrogen and Progesterone drop to very low. These low levels of Estrogen and Progesterone send a message to the hypothalamus to now once again tell the pituitary to start making FSH and LH."

**UTERUS: (shouting like a boss)** "Listen up everyone!" **(now in a loud voice)** "No fertilization this month. It's a sad day, our friend the corpus luteum is now gone. I can feel that the levels of Estrogen and Progesterone are very low. That means it's time to get this unfertilized egg out of here and also it means its time to let go of all this blood I'm holding. Everyone ready?"

**EGG 344, BLOOD, CORPUS LUTEUM, AND THE OVARY: (say together)**  
"Ya, we're ready."

**UTERUS:** "I'm going to flex my muscles and squeeze this blood out of here."

**(The egg and all the blood sit down.)**

**NARRATOR:** "Because the egg was not fertilized the cycle will start over again. The levels of estrogen and progesterone are low which stimulates the Hypothalamus to send the gonadotropin releasing hormone or GnRH to the Pituitary. The Pituitary then produces FSH and LH to prepare another egg for the next cycle. A woman will continue her menstrual cycle until MENOPAUSE occurs around the age of 50 to 60. On the other hand, if the egg **is** fertilized the corpus luteum does not disintegrate and will continue to produce estrogen and progesterone. The developing embryo will make a placenta that also makes estrogen. This will keep the blood supplied to the Uterus all throughout pregnancy. With all this estrogen in the female's blood the pituitary will not make more FSH and LH in order to get another egg ready. So if you are pregnant you do not ovulate."