

## 8<sup>th</sup> Grade, Objective 8.03

### **Objective:**

Analyze the safe and effective use of methods of FDA-approved contraceptives to prevent unintended pregnancy.

### **Materials:**

Appendix 1a, b– Stella’s Story and teacher master  
Appendix 2a, b – Summary Table of Contraceptive Methods (background for teacher)  
2007 FDA Birth Control Guide (see CD-ROM)  
PowerPoint – Contraceptives  
Contraceptives Kit with sample of methods of birth control  
Appendix 3a, b – template cut and taped to index cards. One set for each student, or pairs  
Different contraceptive examples (condoms, birth control pills, Nuvaring, Orthoevra)  
Appendix 4a, b– Public Service Announcement Template and scoring rubric

### **Review:**

Assess students’ recall of the O-M cycle and when conception is most likely to occur (G6, 2.07 Summarize the relationship between conception and the menstrual cycle).

*To begin our lesson, I would like to see what you recall about the ovulation-menstruation cycle and other changes that occur during puberty. I have a story that I will distribute and you will need to fill in the blanks using the word bank. Distribute “Stella’s Story” (Appendix 1).*

Go over Teacher Key of “Stella’s Story” (Appendix 2) and have students volunteer to fill in the blanks.

### **Statement of Objectives:**

*There are many reasons to delay parenthood and prevent unintended pregnancy. Today we will analyze the safe and effective use of methods of FDA-approved contraceptives to prevent unintended pregnancy as well as considerations for use.*

### **Focus:**

[Set up ahead of time the following bags of beans:  
Contraceptive implants (99 red beans; 1 white bean)  
Injectable contraceptives (99 red beans; 1 white bean)  
Oral contraceptives (95 red beans; 5 white beans)  
Contraceptive skin patch (95 red beans; 5 white beans)  
Vaginal contraceptive ring (95 red beans; 5 white beans)  
Male condom (85 red beans; 15 white beans)  
Female condom (80 red beans; 20 white beans)  
Contraceptive sponge (68 red beans; 32 white beans)  
Vaginal spermicides (70 red beans; 30 white beans)  
Withdrawal (73 red beans; 27 white bean)

The Bag of Beans Activity (adapted from Ms. Deborah L. Tackmann, Health Educator in Eau Claire, Wisconsin) is intended to provide a visual representation of the effectiveness and failure rate of common methods of contraceptives. The bags are set up ahead of time with two colorful beans: red beans representing NOT pregnant and white beans representing pregnant. Also in each bag is a slip of paper which states the method of birth control.

A bag is given to each pair of students. One student closes his or her eyes and takes out six beans. If one of those beans is white, that represents an unintended pregnancy attributed to the failure rate of the method. Draw this conclusion: *The more effective the method, the less chance for an unintended pregnancy.*

Make this statement: *Most contraceptive methods are highly effective if used consistently and correctly. Most cases of failure of methods are **human error**, meaning that the person or couple did not use the method correctly or did not use the method every time they had sex.*

*Abstinence is cited as having a 100% effectiveness rate, **but it must also be practiced consistently and correctly.** Many teens who become pregnant or get their girlfriend pregnant **intended** to be abstinent and have not planned how to avoid pregnancy with a method of birth control. Responsible teens acknowledge the possible risk and plan to prevent it.*

*We will learn more about the correct use of each of these products to maximize their effectiveness. This is information you may not need now, but are very likely to need within a few years.*

### **Teacher Input:**

Please note: the contraceptives listed and described in the PowerPoint are not all of the methods approved by the Food and Drug Administration, but include the most common ones used by or prescribed for teens.

Show the PowerPoint on contraceptives approved by the Food and Drug Administration. Display different contraceptive methods to by holding them up or passing them around the room. [Your local school system may have a policy about whether students are allowed to handle these products.] See Appendix 2 – Summary of Contraceptive Efficacy for additional background information on effectiveness rates. Another very useful resource is the 2007 FDA Birth Control Guide [included in CD-ROM.]

<http://www.fda.gov/downloads/ForConsumers/ByAudience/ForWomen/FreePublications/UCM207070.pdf>

Objectives of PowerPoint:

- Identify various considerations for contraceptive methods
- List commonly used contraceptive methods
- Explain how contraceptives work

- Consider contraceptive options

### **Guided Practice:**

Create cards by printing Appendix 3a, cutting methods and taping or laminating to index cards. The correct order appears on Appendix 3b. Distribute to students the envelopes with methods for sequencing the effectiveness of methods. Students can work individually or in pairs.

*Within your envelopes you will find the contraceptive methods we've talked about. Using the information from PowerPoint presentation, decide the order for the methods from MOST effective to LEAST effective and order them top to bottom.*

Processing questions:

*Which method did you decide was most effective? Why?*

*Which method was least effective? Why?*

*How important is correct and consistent use of each product?*

*What would happen to the effectiveness for pregnancy prevention and STD prevention if the male used a condom and the female used a prescription method at the same time? [Explain that in countries with the lowest teen pregnancy and STD rates, sexually active teens use a condom plus another method, often called "Double Dutch."]*

### **Independent Practice:**

*Advertisements or commercials inform the public about products they can buy (clothes or video games) or services they can pay for (like internet services or cell phones). Public service announcements (PSAs) instead inform the public about a message or an idea. A 30-second spot has around 60 -75 words. Now that you are familiar with some common methods of contraception, I would like you to create a radio public service announcement (PSA) for people who are thinking about becoming sexually active and need to choose a contraceptive method. In your PSA, you need to include the following content. The message can be up to one-minute long.*

- *Definition of contraception*
- *Who should use contraception*
- *Some of the choices*
- *Some of the considerations*

[Make sure the students have the option of creating an ad for "Double Dutch."]

Distribute the instruction for creating the Public Service Announcement (Appendix 4a) and the Scoring Rubric for the PSA (Appendix 4b). Explain the criteria for completing the assignment and receiving a good grade.

### **Closure:**

*Today we discussed different methods of contraception that are safe and effective in preventing unintended pregnancy. You have gained evaluation skills and knowledge to apply in your own assessment of methods of contraception.*



## Stella's Story

Stella is very excited to begin 8<sup>th</sup> grade in the fall. She's had a really fun summer hanging out with her friends and practicing her favorite new sport, soccer. She also got a new dog and named her Ella. She's a little anxious about beginning a new year, too. She has experienced a lot of change recently. About two years ago, Stella began to experience changes in her body triggered by the release of hormones. This is called \_\_\_\_\_. She started to grow breasts and her hips began to \_\_\_\_\_. Hair started to grow in some new places (like the \_\_\_\_\_ and the \_\_\_\_\_). She was excited but a little nervous also.

Another big deal that happened during the summer was her period, also called \_\_\_\_\_-\_\_\_\_\_. Stella knew that the first period was called "\_\_\_\_\_" and it usually started about \_\_\_ years after the beginning of puberty. Stella had learned several things about her period in her sixth grade health class. She knew that there were four phases for her cycle, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_; and that having a period now meant that she could \_\_\_\_\_ a child.

An average cycle for females is around \_\_\_ days, but most girls take a while to become regular. The first day of the cycle is when \_\_\_\_\_ occurs, or the shedding of the lining of the uterus. \_\_\_\_\_, or the ovary releasing an egg, generally occurs about 14 days \_\_\_\_\_ the period, making this the most \_\_\_\_\_ time for conception to occur. For this to happen, \_\_\_\_\_ has to unite with the egg in the \_\_\_\_\_.

Stella has noticed a few things about her body when she is about to begin her period, or during her period. Sometimes she is irritable (she blames it on \_\_\_\_\_) and her \_\_\_\_\_ become swollen and painful. During her period, she often has \_\_\_\_\_ but has discovered that physical activity, like soccer, and a mild pain reliever really seem to help.

Overall, Stella thinks that growing up is not so bad. One day she would like to have children and this is an important step to making that happen. When Stella knows she's going to have her period soon, she keeps a \_\_\_\_\_ or \_\_\_\_\_ in her book bag or purse. She also makes a note in her journal of the first day of her period just to help keep track of things. Stella's feeling more grown up and excited about 8<sup>th</sup> grade and spending time with her new buddy, Ella.

**Word bank: hormones, widen, pad, ovulation-menstruation, twenty-eight, menarche, sperm, tampon, before, two, Menses, conceive, puberty, Ovulation, Progesterational Phase, underarms, ovulation, likely, Fallopian tube, Estrogenic Phase, breasts, pubic area, cramps**

## **Stella's Story (Master)**

Stella is very excited to begin 8<sup>th</sup> grade in the fall. She's had a really fun summer hanging out with her friends and practicing her favorite new sport, soccer. She also got a new dog and named her Ella. She's a little anxious about beginning a new year, too. She has experienced a lot of change recently. About two years ago, Stella began to experience changes in her body triggered by the release of hormones. This is called puberty. She started to grow breasts and her hips began to widen. Hair started to grow in some new places (like the underarms and the pubic area). She was excited but a little nervous also.

Another big deal that happened during the summer was her period, also called ovulation-menstruation. Stella knew that the first period was called "menarche" and it usually started about two years after the beginning of puberty. Stella had learned several things about her period in her sixth grade health class. She knew that there were four phases for her cycle, Menses, Estrogenic phase, Ovulation, and Progestational phase; and that having a period now meant that she could conceive a child.

An average cycle for females is around twenty-eight days, but most girls take a while to become regular. The first day of the cycle is when menstruation occurs, or the shedding of the lining of the uterus. Ovulation, or the ovary releasing an egg, generally occurs about 14 days before the period, making this the most likely time for conception to occur. For this to happen, a sperm has to unite with the egg in the Fallopian tube.

Stella has noticed a few things about her body when she is about to begin her period or during her period. Sometimes she is irritable (she blames it on hormones) and her breasts become swollen and painful. During her period, she often has cramps but has discovered that physical activity, like soccer, and a mild pain reliever really seem to help.

Overall, Stella thinks that growing up is not so bad. One day she would like to have children and this is an important step to making that happen. When Stella knows she's going to have her period soon, she keeps a pad or tampon in her book bag or purse. She also makes a note in her journal of the first day of her period just to help keep track of things. Stella's feeling more grown up and excited about 8<sup>th</sup> grade and spending time with her new buddy, Ella.

**Word bank: puberty, widen, underarms, pubic area, ovulation-menstruation, menarche, two, Menses, Estrogenic Phase, Ovulation, Progestational Phase, conceive, twenty-eight, ovulation, likely, sperm, Fallopian tube, hormones, breasts, cramps, pad, tampon**

## SUMMARY TABLE OF CONTRACEPTIVE EFFICACY

This information is not given to students. It is background information for teachers.

**Percentage of women experiencing an unintended pregnancy during the first year of typical use and the first year of perfect use of contraception and the percentage continuing use at the end of the first year. United States.**

Method (1)	% of Women Experiencing an Unintended Pregnancy within the First Year of Use		% of Women Continuing Use at One Year 3
	Typical Use 1 (2)	Perfect Use 2 (3)	(4)
No method 4	85	85	-
Spermicides 5	29	18	42
Withdrawal	27	4	43
Fertility awareness-based methods	25	-	51
----- Standard Days method 6	-	5	-
----- TwoDay method 6	-	4	-
----- Ovulation method 6	-	3	-
Sponge	-	-	-
----- Parous women	32	20	46
----- Nulliparous women	16	9	57
Diaphragm 7	16	6	57
Condom 8	-	-	-
----- Female (Reality)	21	5	49
----- Male	15	2	53
Combined pill and progestin-only pill	8	0.3	68
Evra Patch	8	0.3	68
NuvaRing	8	0.3	68
Depo-Provera	3	0.3	56
IUD	-	-	-
----- ParaGard (copper T)	0.8	0.6	78
----- Mirena (LNG-IUS)	0.2	0.2	80
Implanon	0.05	0.05	84
Female Sterilization	0.5	0.5	100
Male Sterilization	0.15	0.10	100

**Emergency Contraceptive Pills:** Treatment initiated within 72 hours after unprotected intercourse reduces the risk of pregnancy by at least 75%. **9**

**Lactational Amenorrhea Method:** LAM is a highly effective, *temporary* method of contraception. **10**

---

Source: Trussell J. Contraceptive efficacy. In Hatcher RA, Trussell J, Nelson AL, Cates W, Stewart FH, Kowal D. *Contraceptive Technology: Nineteenth Revised Edition*. New York NY: Ardent Media, 2007.

**1** Among *typical* couples who initiate use of a method (not necessarily for the first time), the percentage who experience an accidental pregnancy during the first year if they do not stop use for any other reason. Estimates of the probability of pregnancy during the first year of typical use for spermicides, withdrawal, periodic abstinence, the diaphragm, the male condom, the pill, and Depo-Provera are taken from the 1995 National Survey of Family Growth corrected for underreporting of abortion; see the text for the derivation of estimates for the other methods.

**2** Among couples who initiate use of a method (not necessarily for the first time) and who use it *perfectly* (both consistently and correctly), the percentage who experience an accidental pregnancy during the first year if they do not stop use for any other reason. See the text for the derivation of the estimate for each method.

**3** Among couples attempting to avoid pregnancy, the percentage who continue to use a method for 1 year.

**4** The percentages becoming pregnant in columns (2) and (3) are based on data from populations where contraception is not used and from women who cease using contraception in order to become pregnant. Among such populations, about 89% become pregnant within 1 year. This estimate was lowered slightly (to 85%) to represent the percentage who would become pregnant within 1 year among women now relying on reversible methods of contraception if they abandoned contraception altogether.

**5** Foams, creams, gels, vaginal suppositories, and vaginal film.

**6** The Ovulation and TwoDay methods are based on evaluation of cervical mucus. The Standard Days method avoids intercourse on cycle days 8 through 19.

**7** With spermicidal cream or jelly.

**8** Without spermicides.

**9** The treatment schedule is one dose within 120 hours after unprotected intercourse, and a second dose 12 hours after the first dose. Both doses of Plan B can be taken at the same time. Plan B (1 dose is 1 white pill) is the only dedicated product specifically marketed for emergency contraception. The Food and Drug Administration has in addition declared the following 22 brands of oral contraceptives to be safe and effective for emergency contraception: Ogestrel or Ovral (1 dose is 2 white pills), Levlen or Nordette (1 dose is 4 light-orange pills), Cryselle, Levora, Low-Ogestrel, Lo/Ovral or Quasence (1 dose is 4 white pills), Tri-Levlen or Triphasil (1 dose is 4 yellow pills), Jolessa, Portia, Seasonale or Trivora (1 dose is 4 pink pills), Seasonique (1 dose is 4 light-blue-green pills), Empresse (1 dose is 4 orange pills), Alesse, Lessina or Levlite (1 dose is 5 pink pills), Aviane (1 dose is 5 orange pills), and Lutera (1 dose is 5 white pills).

**10** However, to maintain effective protection against pregnancy, another method of contraception must be used as soon as menstruation resumes, the frequency or duration of breastfeeds is reduced, bottle feeds are introduced, or the baby reaches 6 months of age.

## Template for Contraception Cards



**Double Dutch  
(condom and  
hormonal method)**

**Vaginal  
contraceptive ring**

**Male condom**

**Contraceptive  
implants**

**Female condom**

**Injectable  
contraceptives**

**Contraceptive  
sponge**

**Oral contraceptives**

**Vaginal spermicides**

**Contraceptive skin  
patch**

**Withdrawal**



## **Correct Order for Contraceptive Effectiveness**

1. Double Dutch (condom + hormonal method)
2. Contraceptive implants
3. Injectable contraceptives
4. Oral contraceptives
5. Contraceptive skin patch
6. Vaginal contraceptive ring
7. Male condom
8. Female condom
9. Contraceptive sponge
10. Vaginal spermicides
11. Withdrawal

# PSA Template

FOR IMMEDIATE RELEASE:

Time:  
Agency:  
Title:

City, State, Date — Opening Paragraph (should contain: who, what, when, where, why):

Remainder of body text –

- Definition of contraception
- Who should use contraception
- Some of the choices
- Some of the considerations

# Contraception Public Service Announcement

CATEGORY	3	2	1
Description of contraception and who should use contraception	Defined and described thoroughly and accurately	Partially described or described inadequately	Poorly described or omitted
Description of contraceptive choices	Thoroughly described methods of contraception	Described some methods of contraception	Did not describe or poorly described methods of contraception
Discussion of contraceptive considerations	Thoroughly described contraceptive consideration	Described some contraceptive considerations	Did not describe or poorly described contraceptive considerations
Format	Utilized PSA template, content requirements and word count	Utilized template partially	Did not utilize template