HUMAN GROWTH and DEVELOPMENT Unit

Females – Grade 4



Classroom Expectations:

- We will act in an appropriate and respectful manner, no name-calling, and will always use appropriate language.
- Personal stories will not be shared. Please place all questions in the question box if you need further information. Remember what is shared may need to be discussed with counselors or parents.
- Be kind to yourself and others, that extends to our growing, changing bodies, and remember to practice building self-esteem/respect daily.

EXPECTED LEARNING OUTCOMES

Directions: Using 5 small groups, provide one of the Learning Targets below to each group. Allow them to brainstorm to see what they already know then record their knowledge. They will revisit and revise their knowledge at the end of the unit after learning the critical content. Monitor and honor appropriate and meaningful responses.

By the end of this unit, the student can:

1. Explain the characteristics of valid health information, products and services.
2. Explain when help is needed in making health-related decisions, including who to ask and why it is important to ask.
3. Explain how behavior affects personal health. Identify examples from this unit.
4. Explain how human body parts and body systems function specific to growth and development.
5. Explain how to avoid or reduce health risks and be responsible for health behaviors. Identify examples from this unit.

LEARNING TARGET BREAKOUT ACTIVITY

Each table group will receive one of the guiding topics/questions below. Using your notes, discuss and record preliminary thoughts that best support your group's ideas related to your breakout areas. Remember to keep what you have as we will revisit this activity later to revise knowledge after lesson content is provided.

When/who/why should you seek help in making health-related decisions?	**How might your behaviors affect your personal health?**	**What actions can help you avoid health risks?**
How can you access valid and reliable information?	**How might your health behaviors impact your human growth and development?**	

When should you seek help in making a health-related decision?

Who can you ask for help?

Why should you ask?



WORD SORT

ACTIVITY

Endocrine System

Directions: On the next slide, you will see a list of words from the Endocrine System.

- Sort the words on the next slide under each category: Unknown, Known, Familiar

Endocrine System

Word Sort

Known	Unknown	Familiar

Estrogen	Gland	Pituitary Gland	Hormones
Ovaries	Human Growth Hormone	Testes	

HOW DOES THE BODY WORK?

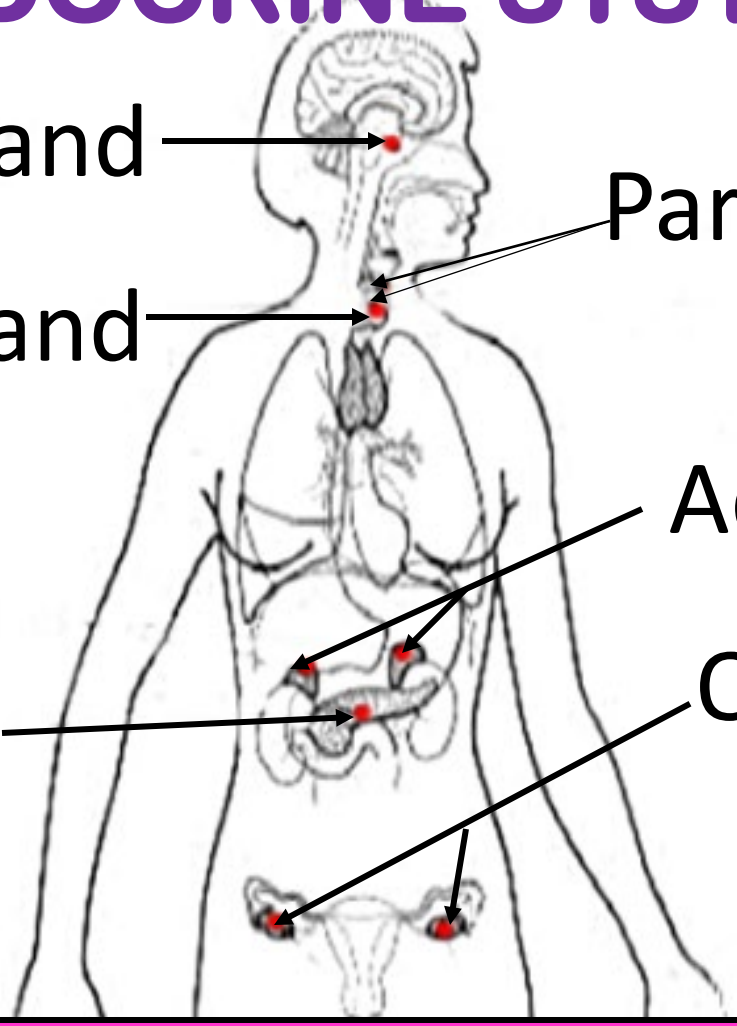
INVESTIGATE The Endocrine System:



Choose your level to build foundation or demonstrate mastery:

- Video on Endocrine System (5:46)

ENDOCRINE SYSTEM



Checking for Understanding Activity –

For example: Which gland produces eggs?

1) Which of the structures creates insulin?
2) Which gland is also part of the reproductive system?

Endocrine System Health Vocabulary



- **Gland:**
  - An organ that releases chemicals into the body is a gland.
- **Pituitary Gland:**
  - A very important gland. Also called the "master gland" since it controls so many body functions.
- **Hormones:**
  - Hormones are chemicals that start, change, or stop certain body processes.
- **Human Growth Hormone (HGH):**
  - A hormone made by the pituitary gland necessary for normal growth.
- **Ovaries (*singular is Ovary*):**
  - Female sex glands. The ovaries produce estrogen and ova, also referred to as eggs or ovum. One egg is released each month.
- ***Testes:***
  - *Male sex glands, responsible for the development of the primary and secondary sex characteristics.*
- **Estrogen:**
  - A hormone that produces secondary sex characteristics and influences the menstrual cycle.

What is Puberty?

- ♀ Puberty is the time when a young person's body begins maturing and changing to become like an adult.
- ♀ At puberty, many changes begin.
- ♀ Puberty usually begins two years earlier for girls than for boys.
- ♀ For most girls, puberty begins between the ages of ten and twelve.
- ♀ It may, however, begin as early as age eight or as late as age seventeen.
- ♀ The changes may take place over several years.
- ♀ When these changes are complete, the person is physically mature.

Other Changes in Puberty

Environment and Growth



- Growth does not depend only on hormones. How people grow also depends on their lifestyle, or how they live.
- People need nutritious food, rest, and exercise to be healthy.



- During puberty, your need for nutrition-rich food and rest increases.
- Because your body is changing so rapidly, it uses more energy than it ever has before.
- In order to be as strong and healthy as you can, you must eat healthful foods and get plenty of sleep.



- Choosing a healthful lifestyle is part of becoming a responsible person.

Student Practice Activity - Predict how lifestyle and health behaviors might affect puberty. Refer to pictures to help guide your thinking

Female Secondary Sex Characteristics

- Increase in height
- Voice becomes softer and fuller
- Growth of thicker and darker hair on the legs
- Growth of hair around the pubic area
- Growth in hair under the arms
- Increase in perspiration
- Hips become wider and rounder
- Increase in breast size
- Increase in size of the reproductive organs
- Onset of menstrual periods





WORD SORT

ACTIVITY

Reproductive System

Directions: On the next slide, you will see a list of words from the Reproductive System.

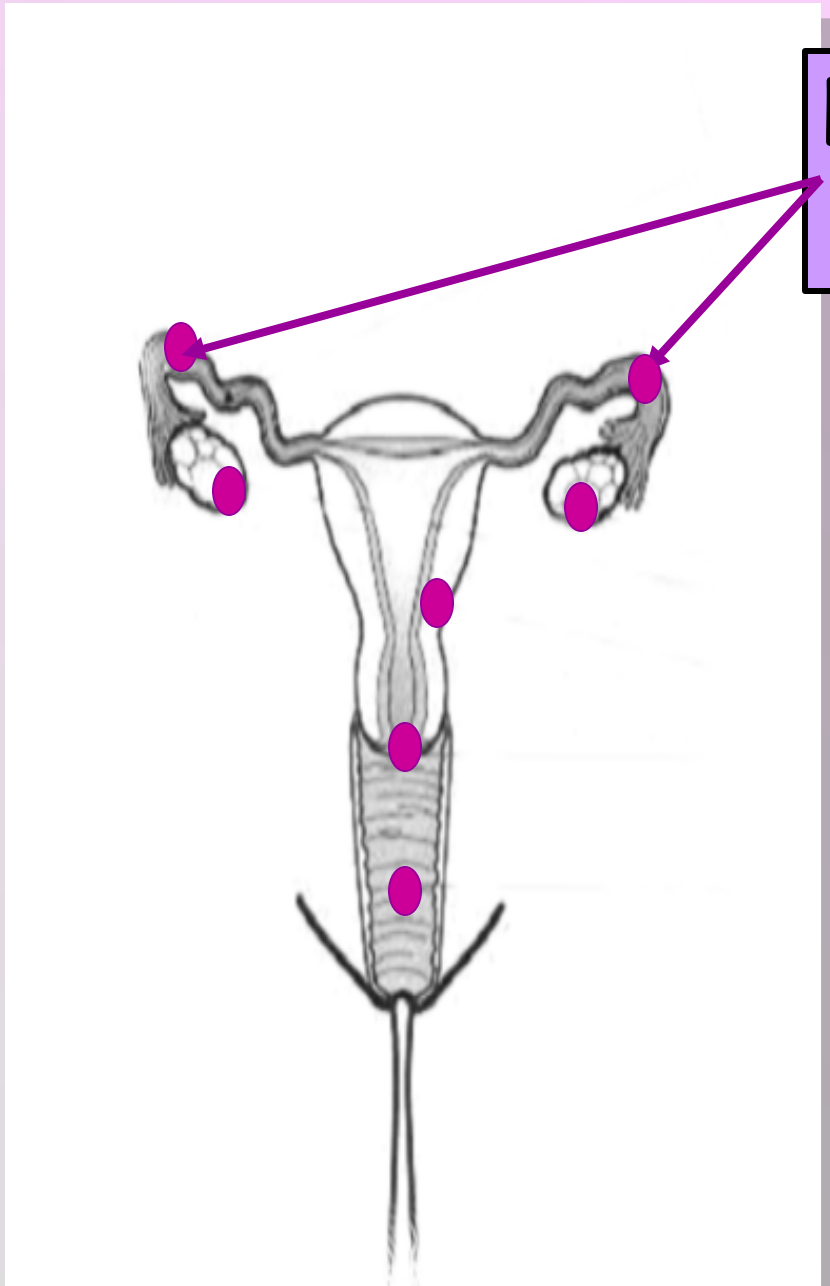
- Sort the words on the next slide under each category: Unknown, Known, Familiar

Reproductive System

Word Sort

Known	Unknown	Familiar

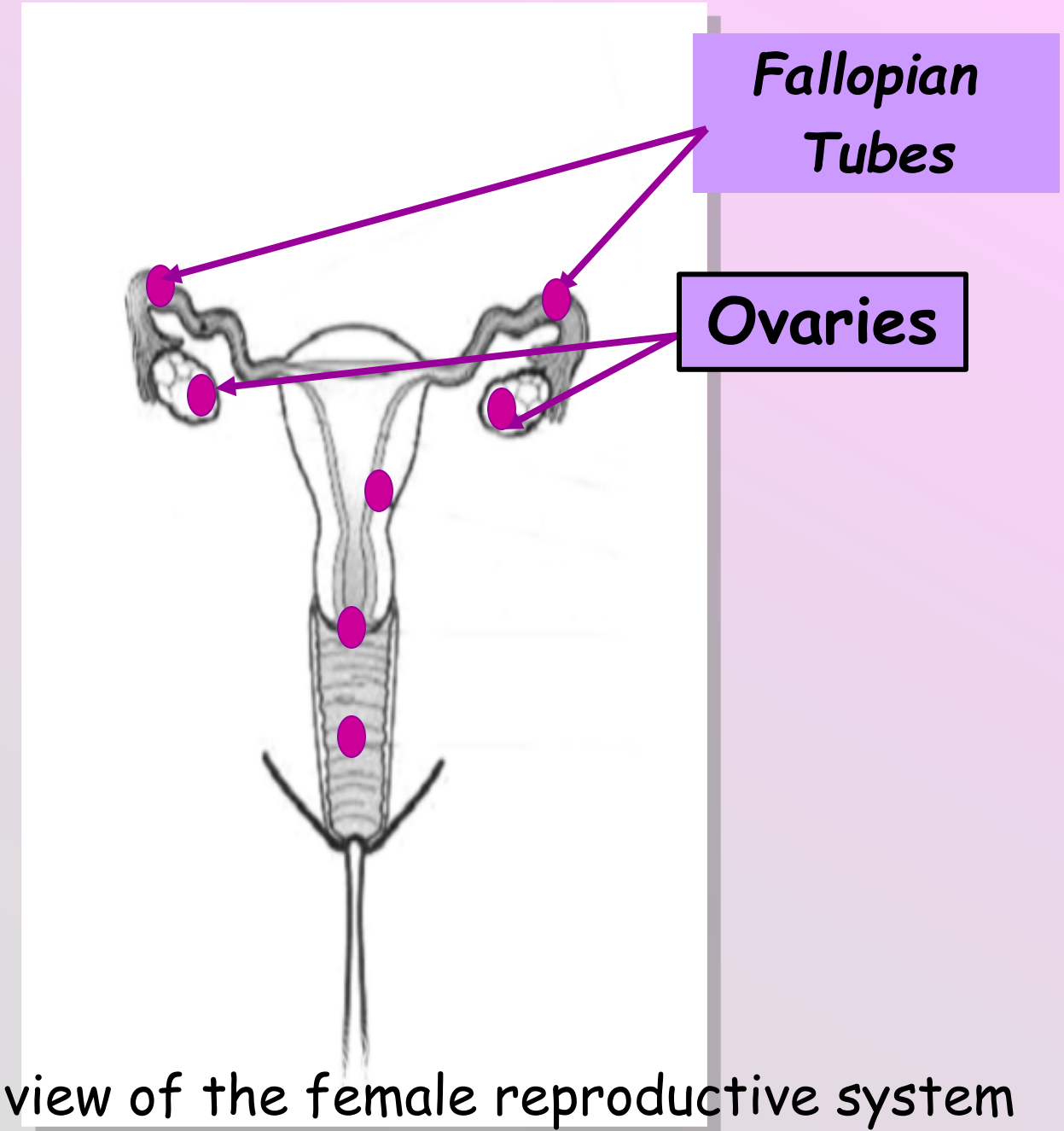
Ovaries	Fallopian Tubes	Uterus	Cervix	Vagina



A front view of the female reproductive system

FALLOPIAN TUBES:

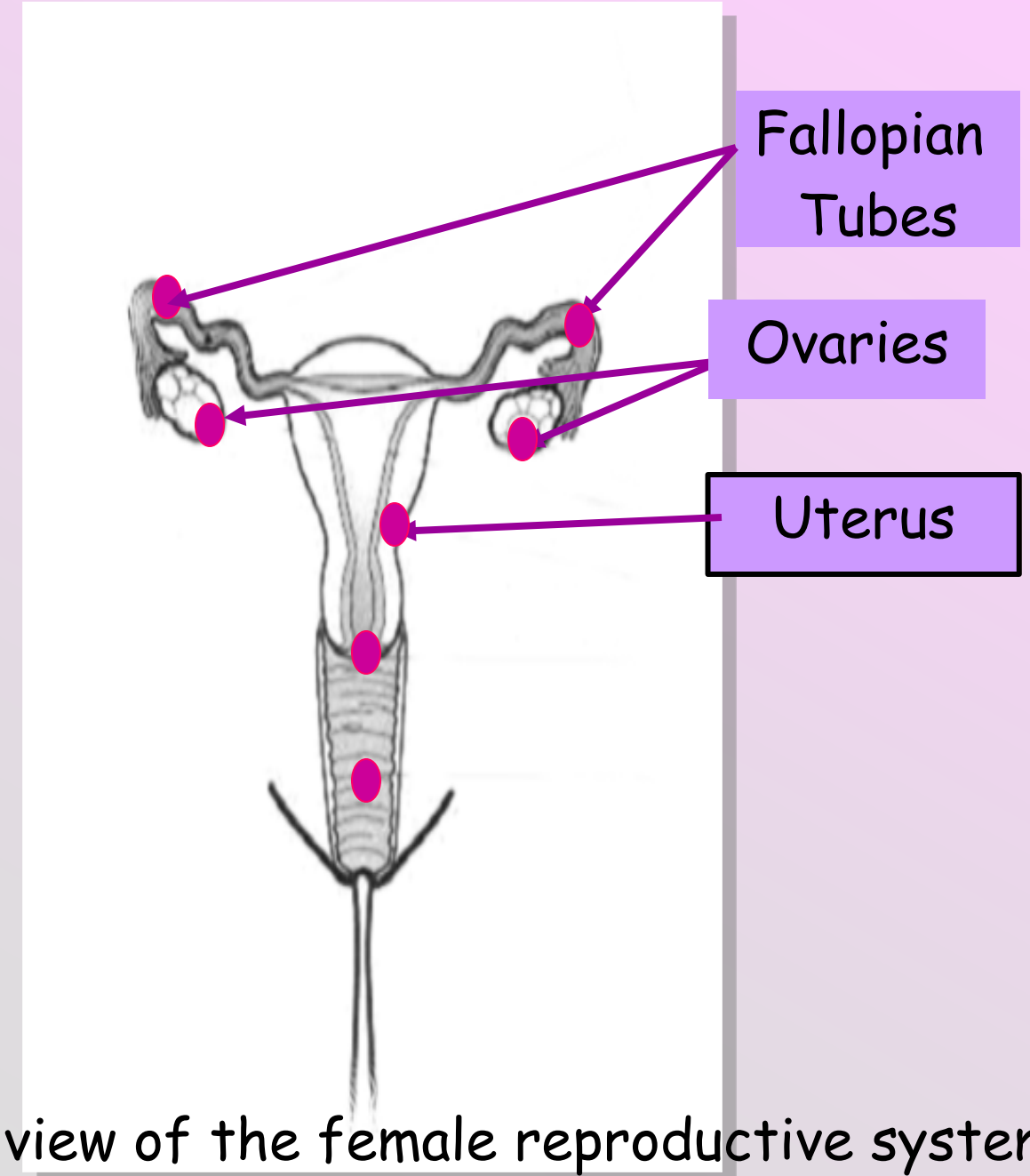
- Four-inch-long tubes through which ova move to the uterus.
- A female has two fallopian tubes (one near each ovary).



A front view of the female reproductive system

OVARIES:

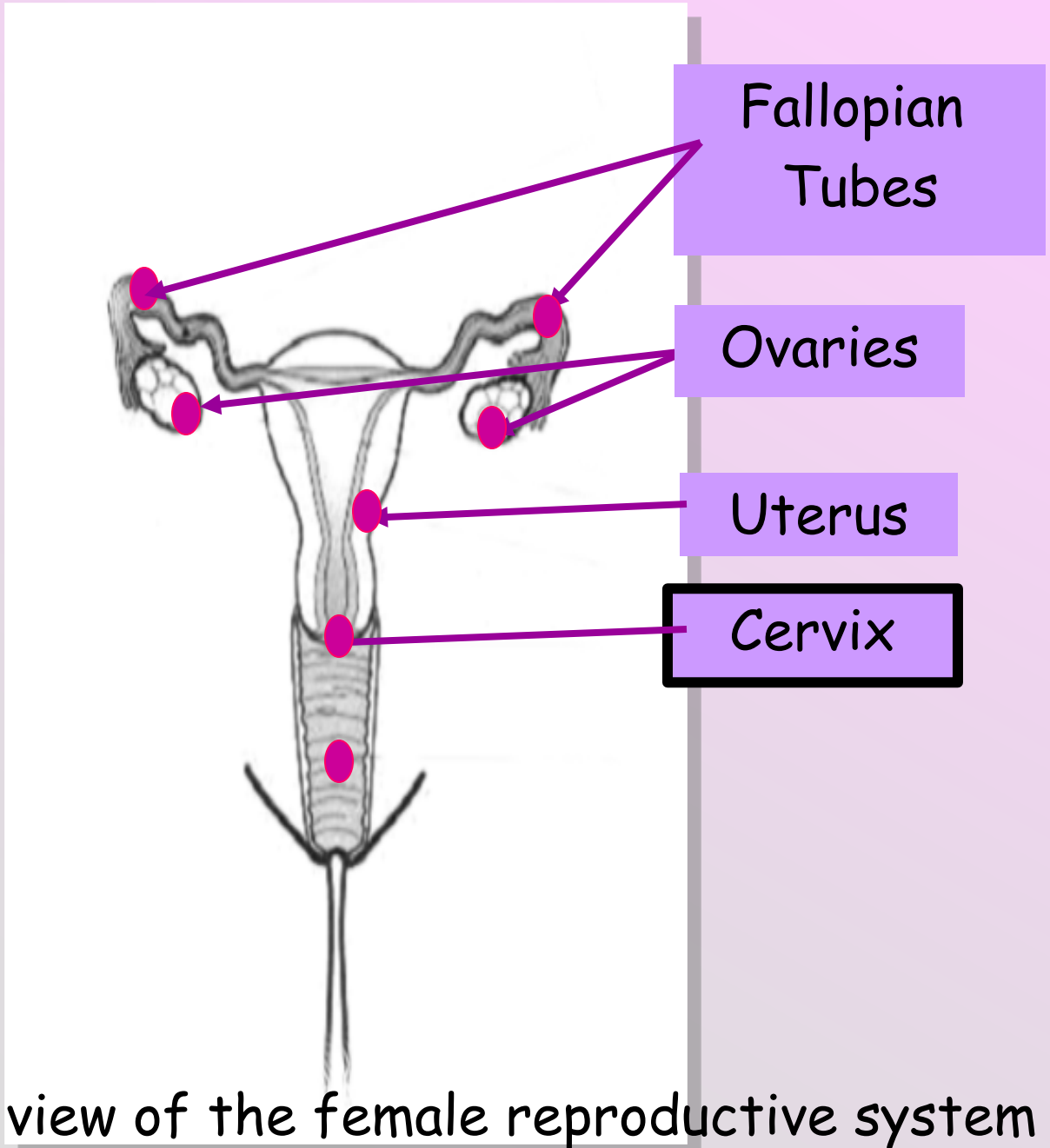
- A gland that produces estrogen and ova.
- Ova are female reproductive cells.
- Ova are also called eggs.
- An ovum is one egg.



A front view of the female reproductive system

UTERUS:

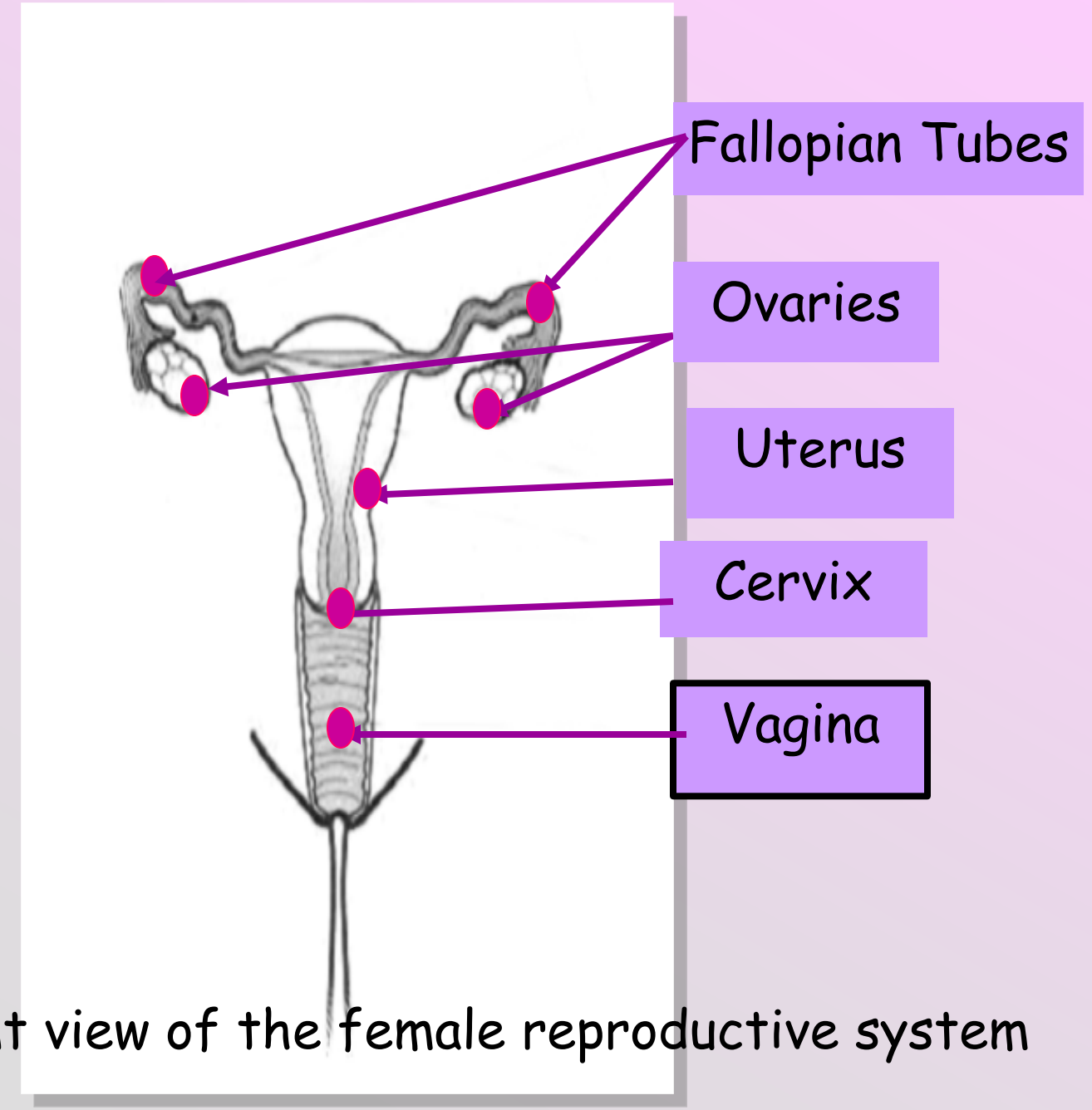
- An organ that supports a fertilized ovum during pregnancy.
- The uterus is muscular and stretches when a baby is growing inside.
- Uterine wall/lining is shed during menstruation.
- Also referred to as the womb.



A front view of the female reproductive system

CERVIX:

- The lower part of the uterus that connects to the vagina.
- During childbirth, the cervix dilates, allowing the baby to pass from the uterus through to the vagina.
- Involved in menstruation process.



A front view of the female reproductive system

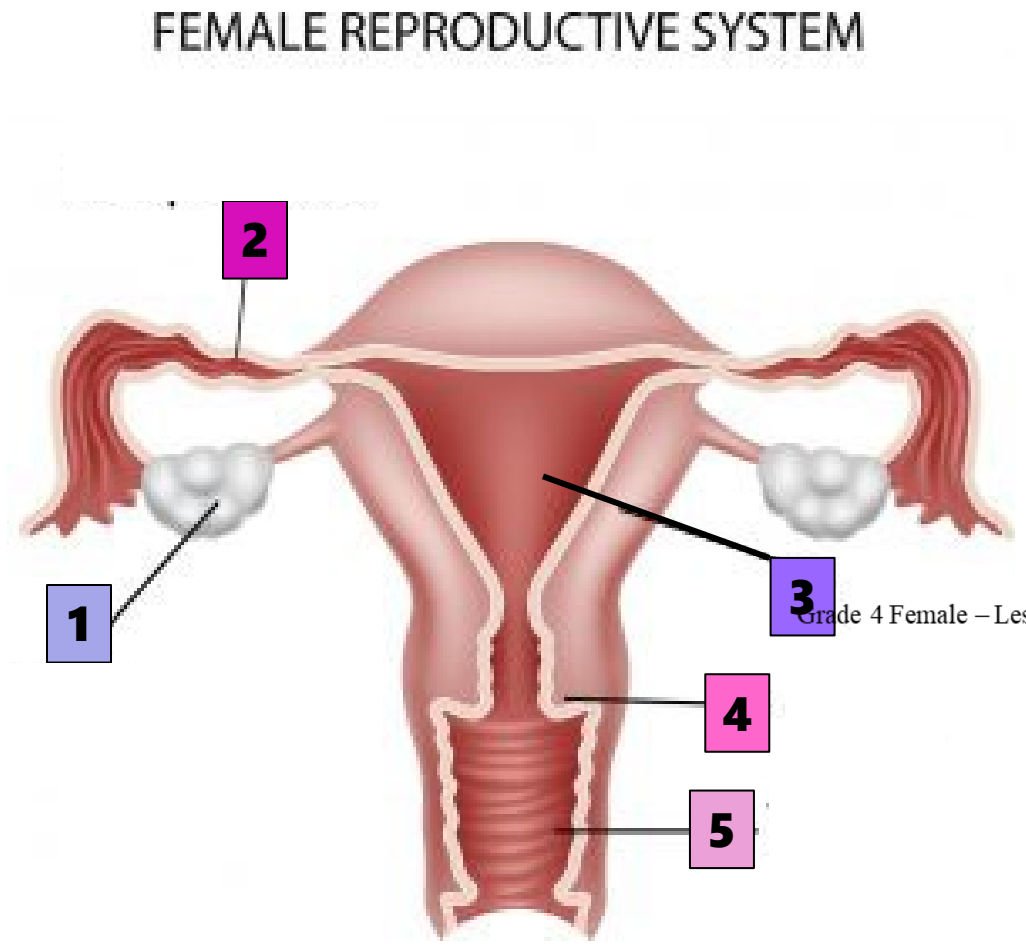
VAGINA:

- A tube that connects the uterus to the outside of the body.
- The vagina is very muscular and stretches when a mother gives birth.
- Passageway for blood during menstruation.

Female Reproductive Anatomy Vocabulary

- **Ovaries -** Female sex glands/organs - where eggs containing your DNA are stored and released.
- **Fallopian Tubes -** The structure that allows egg(s) to travel from the ovaries to the uterus.
- **Uterus -** The organ that houses a fertilized egg/fetus/baby during pregnancy.
- **Cervix -** The lower part of the uterus that allows the flow of menstrual blood and passage of a baby during labor.
- **Vagina-** A muscular structure that allows menstrual blood to leave the body and allows the baby to pass through during delivery.





Grade 4 Female – Lesson 1

Review Activity:

In your group, discuss each question. After you are done discussing, the teacher will read each question. Ask every student to cover their eyes with their non-dominant hand and holds up the number of fingers they believe represents the correct answer.

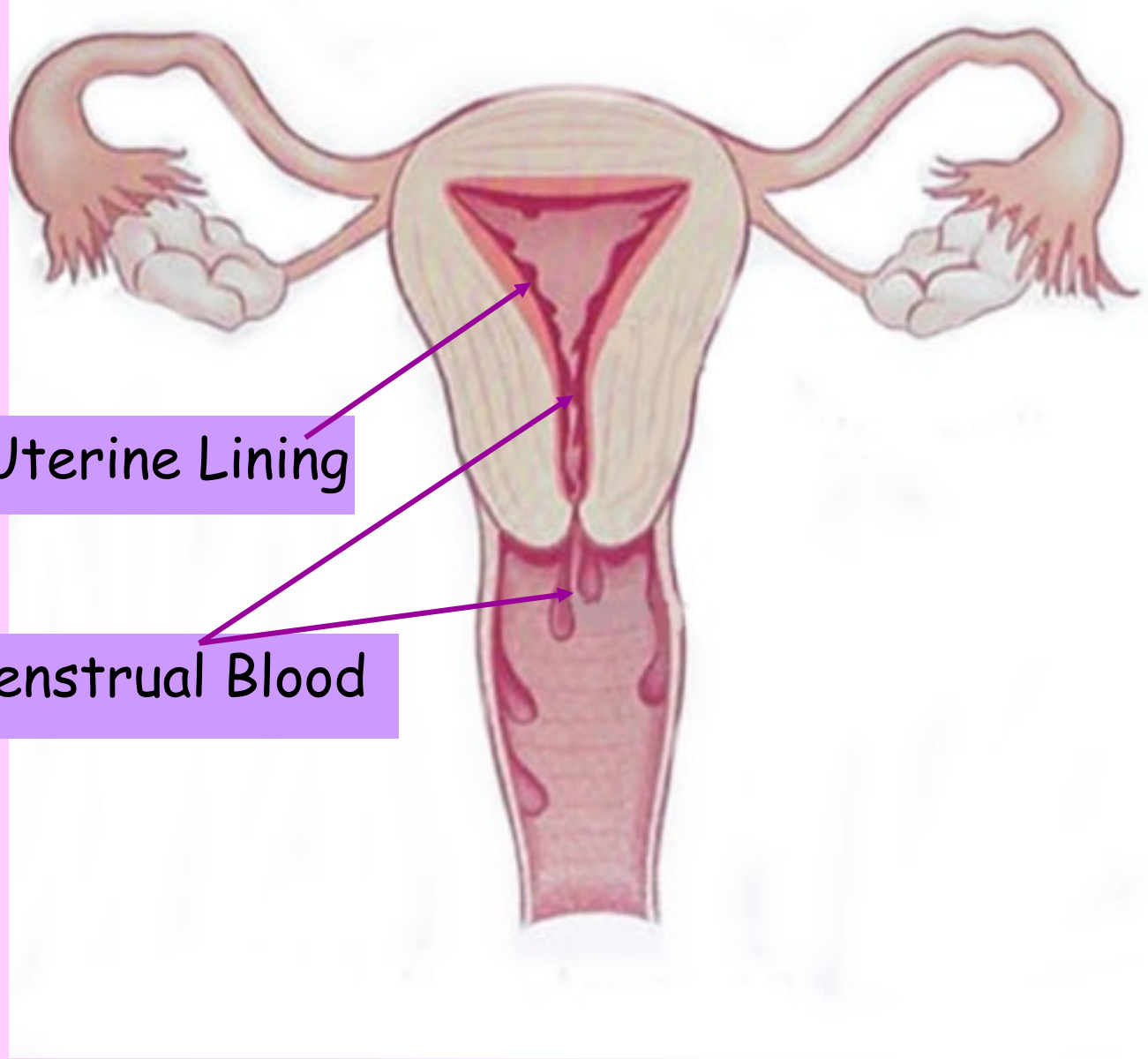
Checking for Understanding:

A. Which structure allows a baby to grow and develop inside a woman's body?

B. Which structure could help keep bacteria from entering the uterus?

C. Which structure created the eggs or ova you were born with?

Menstruation

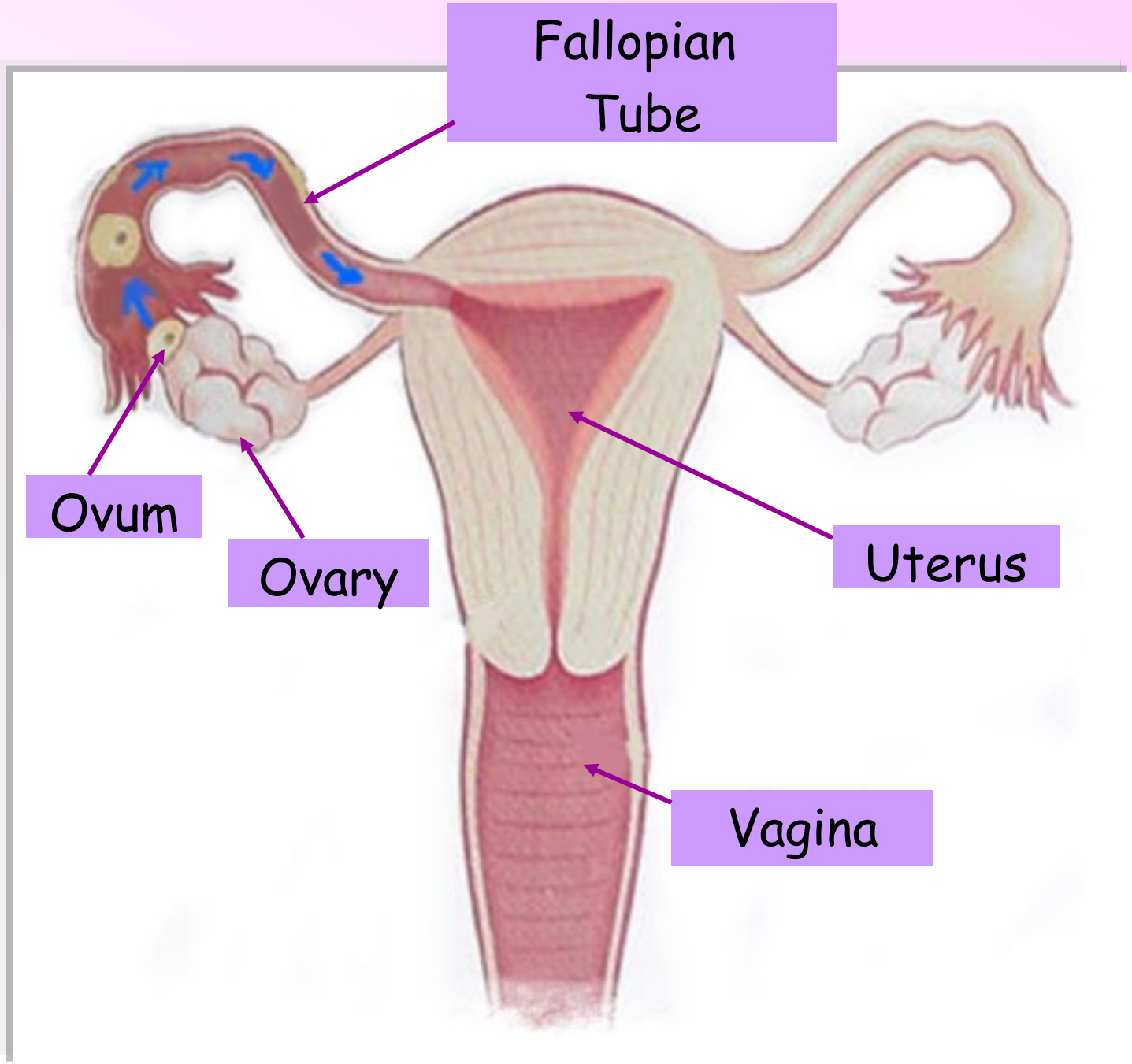


- Menstruation is also referred to as a "period".
- Blood is released from the vagina for an average of 3-7 days.
- A period flow may be light to heavy.
- Each menstrual cycle lasts about 28 days.



<u>The Menstrual Cycle</u> is a series of changes or 4 phases in the female body that includes: maturation of ovum/egg, release of an egg (ovulation), uterine lining preparation, and menstruation (shedding of lining).

<u>Menstruation</u> is when blood from the uterine lining is shed from contractions in the uterine walls (commonly referred to as cramps) and exits through the vagina. This typically occurs for 3-7 days and can be light to heavy flow however, all bodies are different.



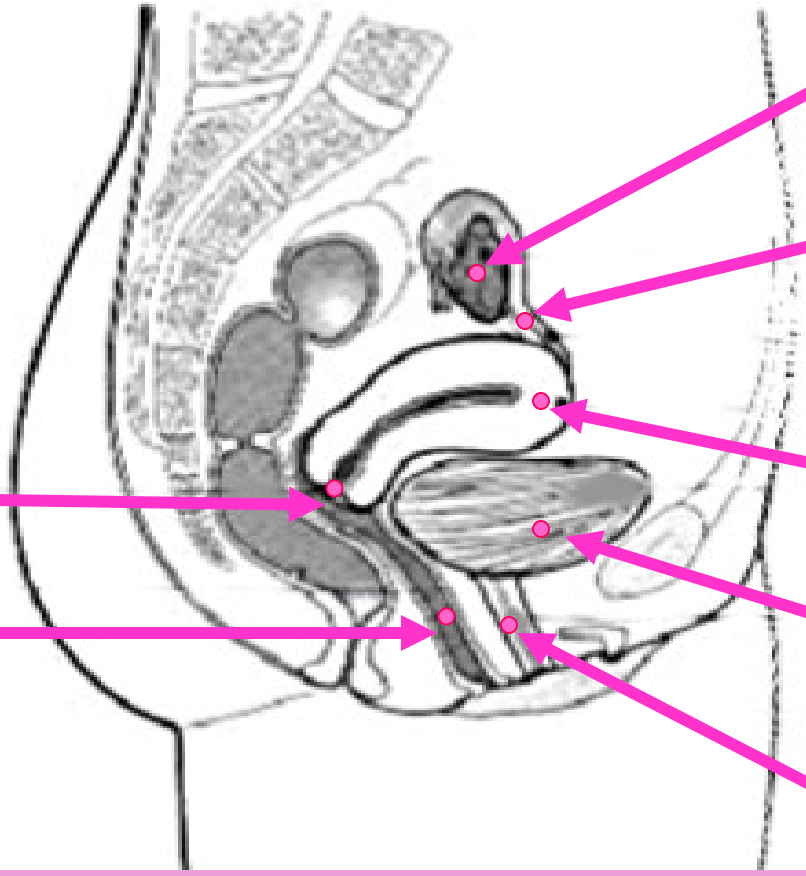
Ovulation

- Each month a mature egg is released from one ovary
- The egg (ovum) travels down the fallopian tube
- If sperm is present, fertilization may occur
- If the ovum (egg) is not fertilized, the nutrient-rich lining breaks away from the uterus and menstruation occurs

Ovulation Process



A side view of the female reproductive system



(1) Cervix

(2) Vagina

(3) Ovary

(4) Fallopian Tube

(5) Uterus

Bladder

Urethra

Synthesize Process Check for Understanding - use the 5 structures in order to track the process from the point an egg is released (beginning) all the way through menstruation (end of process).

Use numbers 1-5 to track the order.

Products for Menstruation

Pads



- A pad is a soft piece of material worn outside the body, attached to underwear to absorb menstrual blood.
- Pads often have "wings" to help with leaks
- Should be changed when saturated to avoid leaks.

Panty Liners



- A panty liner is a piece of material that thinly lines underwear to keep them from being soiled. These can also provide backup for a tampon or precautionary support a day before typical menstruation period.
- Should be changed as needed to avoid leaks.

Tampons



- A tampon is a piece of absorbent cotton material that is put inside the vagina to absorb menstrual blood.
- They come with or without an applicator
- Should be changed often; at least once every 4-8 hours.
- Be sure to select the correct absorbency level to reduce health risks.

Toxic Shock Syndrome (TSS)

What is it?

- Toxic Shock Syndrome (TSS) is a severe illness caused by toxins from growing Staphylococcus bacteria inside the vagina

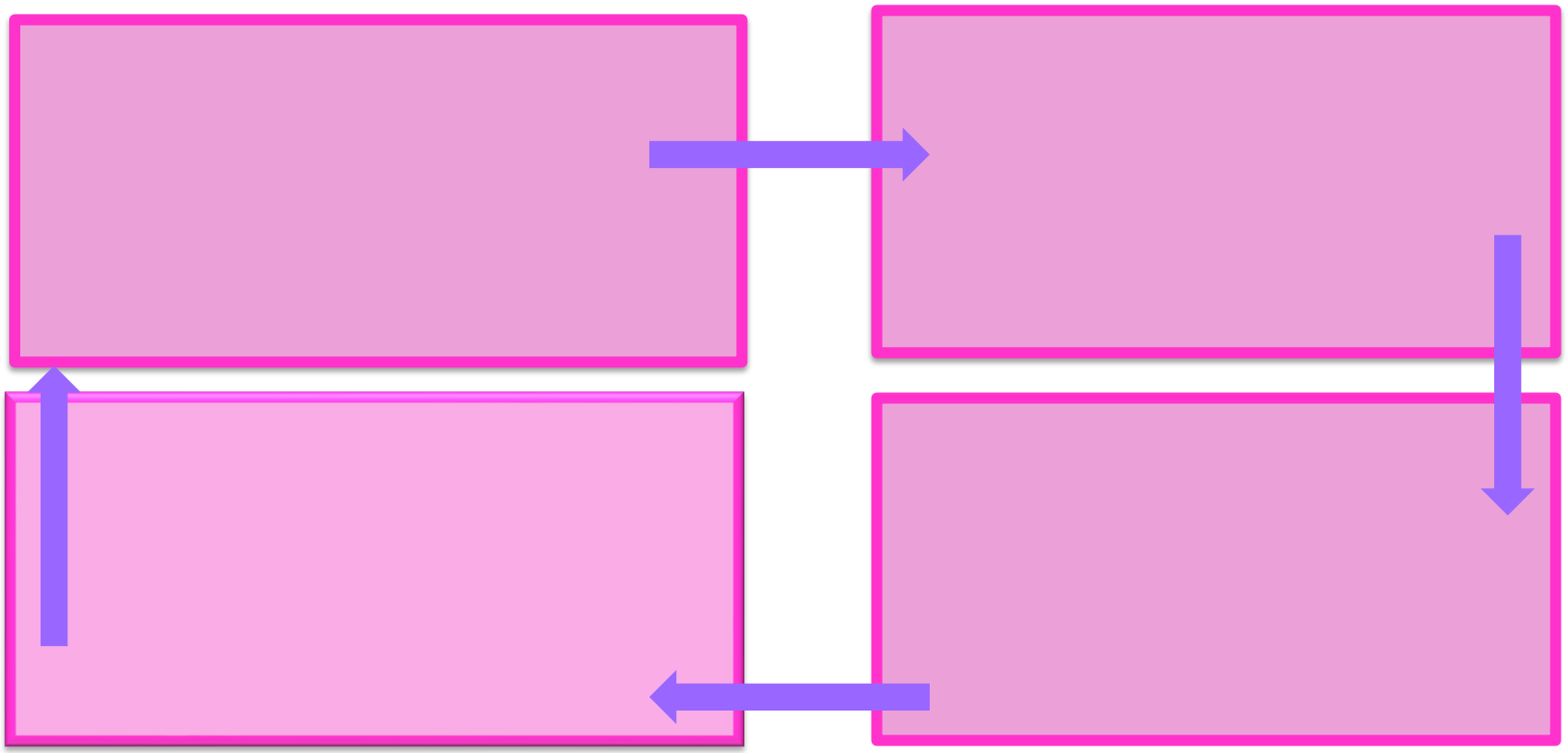
How might one help prevent it?

- Change your tampon every 4-8 hours
- Select/use correct tampon absorbency for your needs
- Monitor your body – make adjustments based on activity levels and hygiene access
- Read safety and instructional materials included with the tampon packaging

How might I recognize I could potentially have TSS?

- Symptoms of TSS are fever, vomiting, diarrhea, fainting, and a skin rash. Tell your parents right away if you have symptoms and have them call a doctor.

Student Summary Activity - Summarize the Menstrual Cycle in 4 stages. Use appropriate terminology in identifying key elements.





Our Bodies are AMAZING!

Think of 3 things that you might be concerned or worried about related to your growth and development. This is a private list.

Now let's make some affirmations to help us work through those feelings.

Examples:

I am worried that I will get my period in the middle of class, and everyone will see.

AFFIRMATION: I will listen and look for signs in my body, and I will be fine!

*By tuning into how your body feels and the changes occurring, you will become more aware of unique signs like extra fatigue or extreme moodiness or emotions, etc. that might otherwise be overlooked. Tuning in can help you be more prepared a day or two before menstruation and help relieve that stressor.

I am worried that I am behind in development.

AFFIRMATION: I am grateful for a healthy body and will love and grow this body with proper sleep, nutrition, and exercise!

*By changing our attitude to gratitude and purpose, we can be thankful for what is most important - our health. This gives perspective to what can help us stay healthy and grow - proper sleep, exercise and nutrition.

Take time t create 1 strong AFFIRMATION

Say it 5 times now and every day

BE BRAVE



<u>Connection Activity</u>: Listen/Watch up to 1:20 and think of one nice thing you can say to yourself today. Repeat that AFFIRMATION 5 times now and every day.

- Being brave is putting your health first.
- Being brave is not holding your feelings and emotions inside until you are hurting.
- Being brave is using kind and encouraging words for yourself and others.
- Puberty is challenging. Be brave, ask questions, and ask for help when needed.
- It's okay to not feel okay today but tomorrow be brave and tell someone you trust how you are feeling.

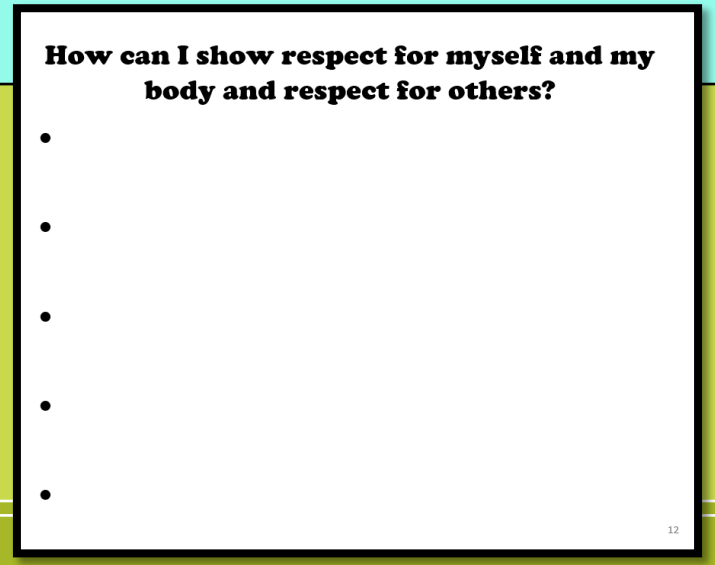
Module 2

Bacteria/Viruses, Health and Hygiene Habits

LIFE SKILLS ACTIVITY

Each table group received one of the life skill building questions below. Using the printable sheet or writable sleeve, discuss and record preliminary thoughts that best support your group's ideas related to your topic area. Remember to keep what you have as we will revisit this activity later to revise and reflect after content has been discussed further.

How can I demonstrate proper hygiene at home and school?	**How can I show respect for myself and my body and respect for others?**	**How can I access reliable health information, products, and services?**
How can practicing daily health behaviors reduce my potential health risks?	**How can I show good character at school and home?**	

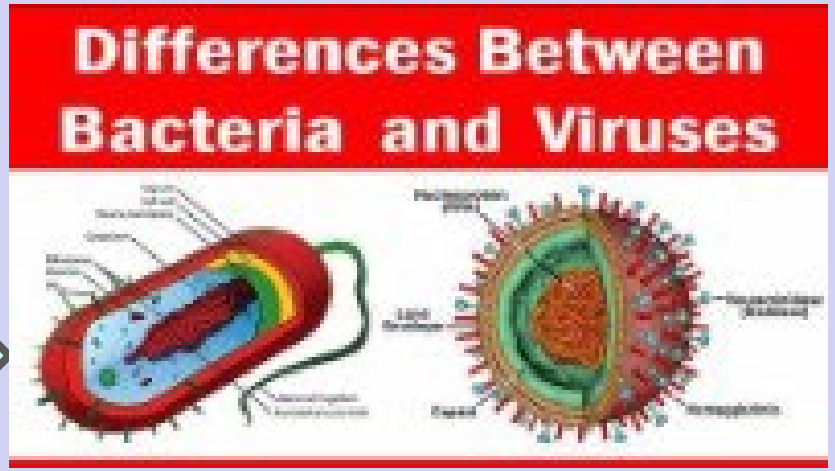


BACTERIA AND VIRUSES ACTIVITY

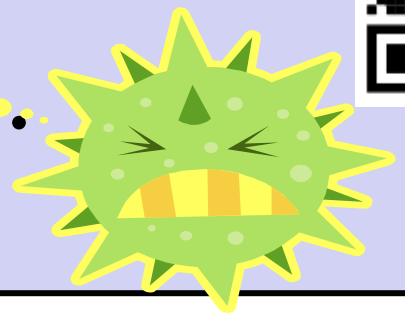
BACTERIA AND VIRUSES COMPARE AND CONTRAST

Assign each group a focus question, then watch the video, discuss, and report out.

5 minute video
https://youtu.be/P_9DXEnEd-Q



1. Draw 3 central conclusions from the video…
2. Describe some of the differences
3. Describe some similarities …
4. How are they treated or cured….
5. What causes them…



PERSONAL HYGIENE









Remember:

- Bathe or shower every day. Washing with soap and water removes perspiration, dirt, and bacteria.
- Ask your parents or guardians about deodorant (gets rid of unpleasant odors) and antiperspirant (stops perspiration).
- Sweat glands become more active during puberty.
- Hot weather, exercise, or excitement may increase perspiration.









- Hair grows around the pubic area during puberty.
- Hair may be brown, blonde, red, black, curly or straight.
- Hair grows to a certain length and then stops growing.
- Hair also grows under the armpits, on the legs, and sometimes on one's face.
- Hair gets thicker and darker on the legs over time.

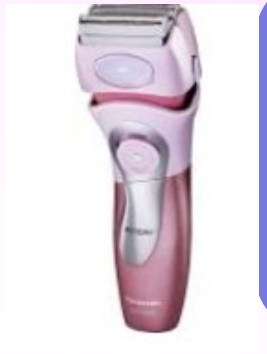
THIS IS COMPLETELY NORMAL GROWTH AND DEVELOPMENT

Hair Removal and Safety



Traditional Blade Razors:

Hand-operated plastic or metal mechanical razor in various colors and comforts; cuts hair at the skin's surface.



Electric Razors:

Plugs into an electrical outlet for charging or is battery operated; should not be submerged in water; cuts hair at the skin's surface.



Hair Removal Creams:

A cream-based lotion that sits on the skin's surface for a period of time to destroy surface hair that is then wiped away.



Hair Removal Wax:

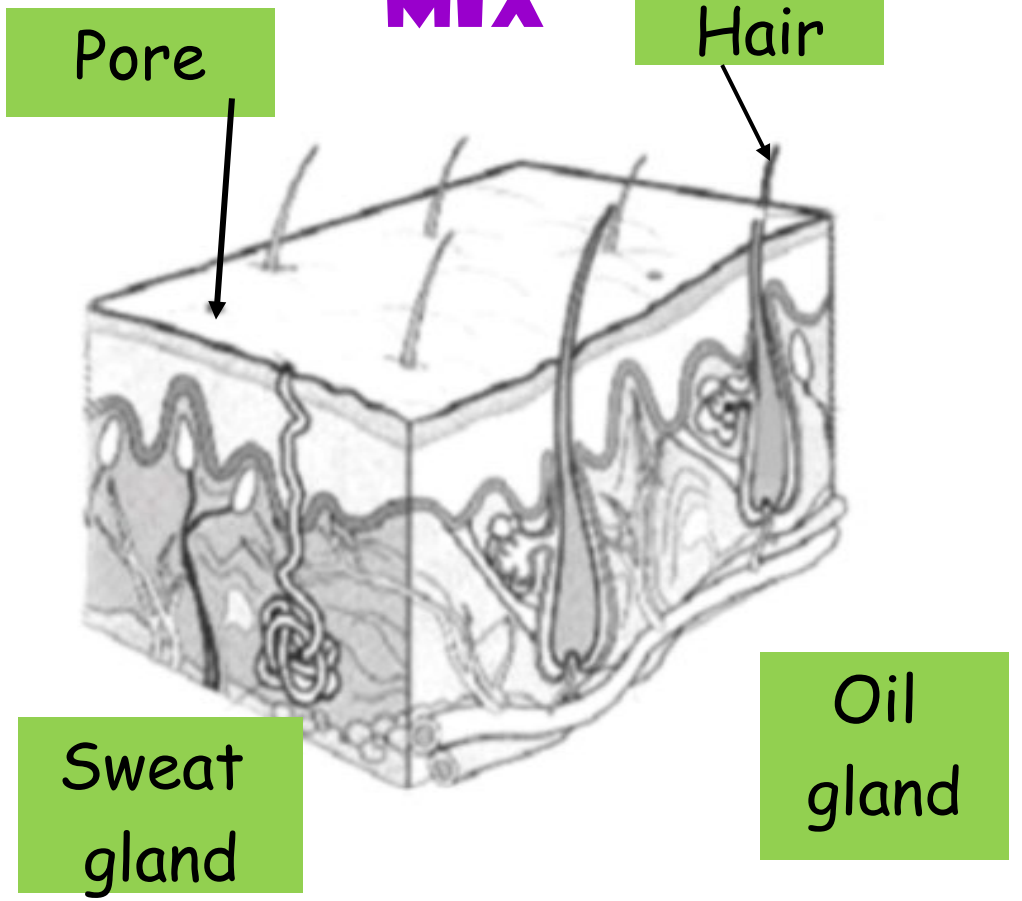
A wax-like substance that is applied to the skin's surface adhering to the hair and is then peeled off when hardened.

Safety Measures:

- *Never utilize any hair removal options without discussing and getting parental permission*
- *Do not share razors; bacteria and blood can increase infection risks*
- *Skin should be prepared properly prior to shaving to avoid razor burn*
- *Monitor for razor burn and keep irritated skin clean to avoid infection*
- *Skin should be prepared properly prior to shaving to avoid razor burn*

Oil and Sweat Don't Mix

- Oil glands (and certain sweat glands) in the skin develop quite rapidly during puberty.
- The oil glands begin producing much more oil than they did before puberty.
- The tubes leading from the glands may get clogged with dirt, bacteria, and oil, causing infection or pimples. (Acne).
- If you don't have the ability to shower after sleeping or excessively sweating, be sure to wash your face with a gentle face cleanser.



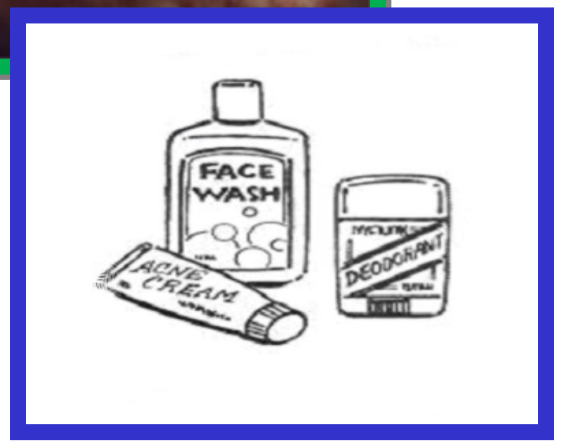
A cross-section of human skin

ACNE

- Acne is a skin disorder in which pores are clogged with oil and germs.
- Acne is common in both boys and girls, but usually worse in boys.
- A doctor cannot cure acne but can provide special treatments to keep it under control.
- When the oil glands in your skin make too much sebum, an oily substance, the oil ducts get clogged with oil and mix with germs on the skin.
- Wash your face every morning with a gentle cleanser.
- Do not touch your face; your hands have dirt and oil on them that can clog pores.
- Use makeup products sparingly and clean makeup brushes often.

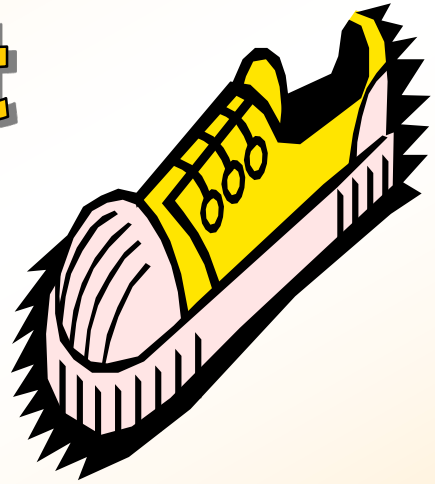
WHAT TO DO...







Stomp Out Smelly Feet



- Keep your feet clean and dry.
- Wear socks that absorb moisture, such as cotton socks, and wash them after use.
- Use powders or sprays designed for feet and shoes.
- When possible, give shoes a chance to air out.
- Wash sneakers and other shoes if they can be washed. Make sure they are dried properly.



Breasts and Bras



Breast Bud: is a hard lump that forms behind the nipple. The nipple is located in the center of the breast and connects to mammary glands.

Bra: is an undergarment that covers the breasts. A bra is typically worn for support, comfort, and modesty.

Breast Exam: As you mature and go through puberty, it is good practice to learn how to perform breast self-exams to get familiar with your breast tissue. This will help you better check for irregularities that could be connected to various breast cancers. Your doctor can assist with how to perform at home when you are older. Early detection is critical.



HYGIENE HIGHLIGHTS

Determine 3 things that you will make priorities in your personal hygiene. Record your list in your notes or journal.

Examples:

- I will bathe thoroughly every day to reduce dirt, oils, and odor.
- **I will select and use the lowest absorbency tampons and replace them frequently to avoid bacteria and possible TSS.**
- **I will limit touching my face to avoid spreading germs and clogging pores.**

MY PERSONAL HYGIENE PRIORITIES		
Health Connection:		

Health Connection: When you feel clean, you feel good. When you take the time to groom, you invest in yourself. Think of one thing you do in your personal hygiene that makes you feel good.

(Ex. Style your hair)

REFLECT AND REVISE – LIFE SKILL BUILDING ACTIVITY

Use the same printable sheet or writable sleeve you have already recorded your initial thoughts on to reflect, revise, and record new knowledge or evidence that best supports your groups summation related to your topic area. Each group member should be prepared to share an element as time and information permits. Remember the evidence you provide is part of your culminating assessment for Q4 Health Education FOCUS assessed learning goals.

How can I demonstrate proper hygiene at home and school?	**How can I show respect for myself and my body and respect for others?**	**How can I access reliable health information, products and services?**
How can practicing daily health behaviors reduce my potential health risks?	**How can I show good character at school and home?**	



Question Slip

After listening and participating in the HGD presentations I have a question that I would like answered privately.(select one)

- ☐ In person – in private conversation
- ☐ Written below and returned to me

My question is _____

_____

Student Name _____ Teacher name _____

Answer: _____

_____

_____

- ☐ You should discuss with your parent/guardian
- ☐ I cannot answer this question
- ☐ I need to refer this question to school counselor and administrative personnel

EXPECTED LEARNING OUTCOMES

The standards can be addressed through many elements of this unit. Language Arts, Math, and Science Standards may also be reflected.

Directions: Using 5 small groups, provide one of the Learning Targets below to each group. Allow each group to brainstorm to see what they already know and then record their knowledge. They will revisit and revise their knowledge at the end of the unit after learning the critical content. Monitor and honor appropriate and meaningful responses.

These are included in the printable group handouts.

By the end of this unit, the student can:

1. Explain the characteristics of valid health information, products, and services.
2. Explain when help is needed in making health-related decisions, including who to ask and why it is important to ask.
3. Explain how behavior affects personal health. Identify examples from this unit.
4. Explain how to avoid or reduce health risks and be responsible for health behaviors. Identify examples from this unit.

Determining Valid and Reliable Information

A Reliable Product/Service is something that provides a consistent, predictable experience when used or observed based on claims; quality.

Validity of a Product/Service is the state of being acceptable according to the law; well-grounded, sound, and correct based on research and test measures.

Tips for Accessing Valid and Reliable Health Information, Products, or Services:

1. Identify what information, product, or service you really need
2. Research the health topics, products, and care providers. Review feedback and consumer reports. Printed health information should be current (no more than 5 years old)
3. Evaluate the sources of information, qualifications, reputation. Is it educational or emotional? Are their claims realistic or lofty?

Identifying Trusted Sources



.edu, .org and .gov are typically educational institutions, nonprofit organizations and government agencies that are (generally) credible.

When using .com sources, check:



- Proper use of citations or source links when they're quoting statistics/facts
- Other sources that use the same information
- The full story of the statistic.

Determining Valid and Reliable Information

Deconstructing an Advertisement

This ad:

- Is advertising antiperspirant/ deodorant but doesn't include a picture of the product. Why?
- Uses slogan, "ALL STRENGTH, NO SWEAT." Why?
- Uses a National Women's Soccer Team Player to shatter norms of not having women in football to sell a product. Why?

Reflect:

- Would you buy this product? Why or why not?
- What else can you infer from the ad?
- What else would you want to know about the product?



6 Helpful Tips for Identifying Valid and Reliable Health Information

Tip 1

Origin

From where was the source retrieved?

- For Digital: What is the domain?
  - » com, .org, .gov, .net?
- For Print: Who is the publisher?
  - » Is the source printed by a well-known publishing press, or a university press, or other?
- Is the source primary or secondary?



Tip 2



Author

Who is the author of the source?

- How qualified is the author to write on this topic?
- Is the author sponsored by an organization?

Tip 3

Purpose

What is the purpose of the source?

- Who is the intended audience?
- Why was the source written?
  - » Inform? Opinion? Entertain? Persuade? Sell?



Perspective

Tip 4

From what perspective is the source written?

- What is the author's point of view?
  - » What is the tone or voice of the writing?
  - » Is the writing biased/unbiased? Does there seem to be an agenda?





Tip 5

Academic

How scholarly is the source?

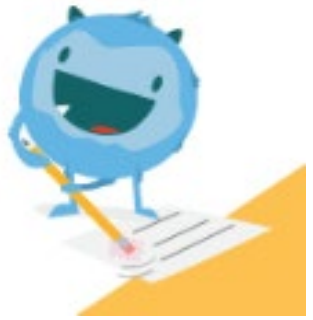
- Is the content supported by evidence?
  - » Are there references? Does the author cite credible sources?
- Is the source peer reviewed?

Relevance

Tip 6

How relevant is the source?

- When was the content published?
  - » How current is the source and/or when was it last updated?
- Does the source fit the needs of the assignment?
  - » Does the assignment require an overview, or something specific?
  - » Does the assignment require primary sources?



Each group will be assigned an ad. Collaborate within your group to answer the questions.

Answer the following questions to determine the validity or reliability of health products/services:

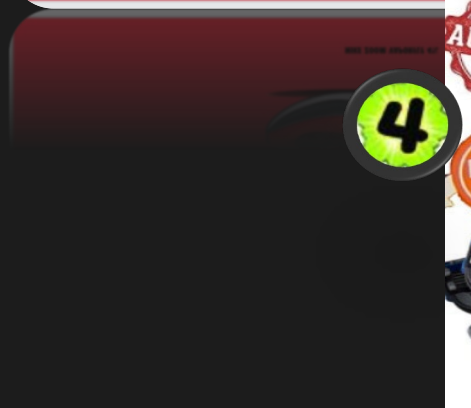
1. Who is the target audience?
2. Why are they targeting this audience?
3. How do they appeal to this audience?
4. What word(s) act as triggers for you as a consumer?
5. What did the ad leave out?
6. What characteristics of the ad can you describe?
7. What else would you want to know?
8. How do you know if the ad is valid or reliable?

Do you believe the product's claim? Yes? No? Maybe? Why? REPORT OUT













Healthful Habits for Girls Your Age



- Have regular checkups.
- Accept your body and its changes. Be confident and proud.
- Be kind to yourself and others during these physical and mental changes. Use positive comments or don't comment at all. Don't participate in gossip and drama.
- Be an UPSTANDER, not a BYSTANDER… NEVER BULLY ANYONE!!!
- Do not share a razor, even if you have permission to shave.
- Bathe/shower each day.
- Avoid picking or squeezing acne.
- Change pads, liners, and tampons often and read directions.
- Tell your parents/guardians if you have symptoms of TSS.
- Limit caffeine, take warm baths, and exercise to lessen cramps.
- Choose responsible actions if you have mood swings.
- Keep a calendar of your menstrual period.
- Avoid/reduce your risk behaviors. Make good choices.

Personal Health Behaviors/Goals Activity

What are 5 personal healthy habits and/or life skills you put into action <u>every day</u> that can help you reduce your health risks?

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-
-
-
-

List 2 Health Goals you can set to improve a health behavior and reduce a health risk.

-
-

REFLECT AND REVISE – LEARNING TARGETS ACTIVITY

Use the same printable sheet or writable sleeve you have already recorded your initial thoughts for Learning Target Breakout Activity 2, reflect, revise, and record new knowledge or evidence that best supports your groups summation related to your topic area. Each group member should be prepared to share an element as time and information permits. Remember the evidence you provide is part of culminating assessment for Q4 Health Education FOCUS assessed learning goals.

When/who/why should you seek help in making health-related decisions?	**How might your behaviors affect your personal health?**	**What actions can help you avoid health risks?**
How can you access valid and reliable information?	**How might your health behaviors impact your human growth and development?**	