

 **Lesson Plan: Protection, Reproduction and Cooperation****Grade Level:** 6**Subject:** Life Science**Duration:** 45–60**NGSS MS-LS1-1:** Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells. **Learning Objectives**

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

- **Identify** the body's defense mechanisms including skin barriers, immune responses, and inflammatory reactions.
- **Describe** the stages of human reproduction from fertilization through fetal development.



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

- **Fertilization:** The point at which a single sperm cell enters an egg cell within the female reproductive tract and the genetic material is combined.
- **Embryo:** The stage of human development that spans the first eight or nine weeks of growth following fertilization and the formation of the zygote.
- **Fetus:** A developing human from the 9th week to the time of birth; defined by growth of the body and organ systems.

 **Materials Needed:** (all links are included in this PDF)



- Worksheet: Protection, Reproduction and Cooperation (Set 0)
(<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-6-protection-reproduction-and-cooperation-2026-0.pdf>)
- Worksheet: Protection, Reproduction and Cooperation (Set 1)
(<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-6-protection-reproduction-and-cooperation-2026-1.pdf>)
- Worksheet: Protection, Reproduction and Cooperation (Set 2)
(<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-6-protection-reproduction-and-cooperation-2026-2.pdf>)
- Vocabulary matching worksheet (Set 1)
(<https://newpathworksheets.com/api/vocabulary/vocabulary-science-grade-6-protection-reproduction-and-cooperation-2026-1.pdf>)
- Vocabulary matching worksheet (Set 2)
(<https://newpathworksheets.com/api/vocabulary/vocabulary-science-grade-6-protection-reproduction-and-cooperation-2026-2.pdf>)



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

Step 2: Direct Instruction (15 minutes)

- Explain the structure and function of skin, emphasizing the epidermis as a physical barrier and the dermis containing blood vessels and nerves.
- Demonstrate the immune response by describing how antigens trigger antibody production. Use the vocabulary worksheet to reinforce key terms like antigen, antibody, and lymphocytes. (<https://newpathworksheets.com/api/vocabulary/vocabulary-science-grade-6-protection-reproduction-and-cooperation-2026-1.pdf>)
- Discuss the stages of human reproduction: fertilization, embryo development (first 8-9 weeks), and fetal development (9 weeks to birth).



- Explain inflammation as the body's non-specific response to injury, describing redness, swelling, and pain as signs of the immune system at work.

Step 3: Guided Practice (15 minutes)

- Distribute the vocabulary matching worksheet and work through the first few terms as a class, ensuring students understand the definitions.
(<https://newpathworksheets.com/api/vocabulary/vocabulary-science-grade-6-protection-reproduction-and-cooperation-2026-2.pdf>)
- Review questions from Worksheet Set 0 together, focusing on questions about skin function, pathogen response, and immune cells.
(<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-6-protection-reproduction-and-cooperation-2026-0.pdf>)
- Discuss how the cardiovascular system cooperates with the immune system by transporting white blood cells throughout the body.

Step 4: Independent Practice (15 minutes)



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

- Have students classify everyday examples: Is a fever a sign of inflammation? Does passive immunity involve the body making its own antibodies?

💡 Differentiation Strategies

For advanced learners:

- Challenge advanced learners to research and present on specific immune disorders or how vaccines work to provide active immunity.



- Have students create a detailed timeline of fetal development with key milestones and organ system formation.

For learners needing support:

- Provide students with a pre-labeled diagram of skin layers and immune system components for reference during instruction.
- Offer sentence frames for vocabulary definitions to help students articulate their understanding of complex terms like 'lymphocytes' and 'inflammation'.

Extension Activities

- Research Project: Have students investigate a specific disease and how the immune system responds, presenting their findings to the class.
- Model Building: Students create a 3D model of skin layers using craft materials, labeling the



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

[reproduction-and-cooperation-2026-1.pdf](#)

- Worksheet: Protection, Reproduction and Cooperation (Set 2)
(<https://newpathworksheets.com/api/worksheet/worksheet-science-grade-6-protection-reproduction-and-cooperation-2026-2.pdf>)
- Vocabulary: Protection, Reproduction and Cooperation (Set 1)
(<https://newpathworksheets.com/api/vocabulary/vocabulary-science-grade-6-protection-reproduction-and-cooperation-2026-1.pdf>)
- Vocabulary: Protection, Reproduction and Cooperation (Set 2)
(<https://newpathworksheets.com/api/vocabulary/vocabulary-science-grade-6-protection-reproduction-and-cooperation-2026-2.pdf>)



- Vocabulary: Protection, Reproduction and Cooperation (Set 3)
(<https://newpathworksheets.com/api/vocabulary/vocabulary-science-grade-6-protection-reproduction-and-cooperation-2026-3.pdf>)



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet



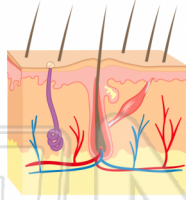


Name _____ Class _____ Date _____

1

Which is not a **function** of the **skin**?

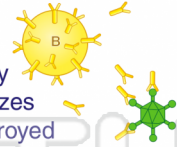
- A produces vitamin d
- B covers the body
- C eliminates waste
- D causes movement



2

Antigens and **antibodies** fit together to **attack pathogens**. When they attach to the pathogen, _____.

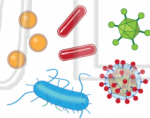
- A it slows down
- B all three leave the body when the person sneezes
- C it is marked to be destroyed
- D it has more energy



3

A **pathogen** is:

- A not something the human body can fight.
- B only found in the respiratory system.
- C a type of organism that can cause an infection and disease



4

Which of the following is **TRUE** about the human **spleen**?

- A It helps to filter blood and conserve fluids, much like the kidney.
- B It is an important organ in the process of chemical digestion of foods.
- C It produces all kinds of blood cells in



5



PREVIEW

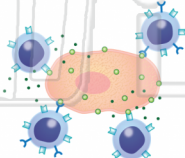
7

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

9

What type of **blood cell** can attach to cancer cells and **release toxic chemicals** that kill the cancer cells?

- A T lymphocyte
- B macrophage
- C erythrocyte
- D B lymphocyte

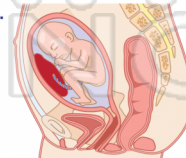


10

Passive immunity happens naturally in a developing fetus as **antibodies** are passed from the mother to fetus across the **placenta**.

True or False?

- True
- False



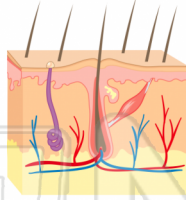


Name _____ Class _____ Date _____

1

Which is not a **function** of the **skin**?

- A produces vitamin d
- B covers the body
- C eliminates waste
- D causes movement

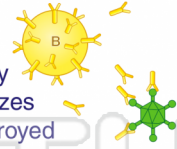


D

2

Antigens and **antibodies** fit together to **attack pathogens**. When they attach to the pathogen, _____.

- A it slows down
- B all three leave the body when the person sneezes
- C it is marked to be destroyed
- D it has more energy

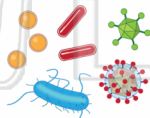


C

3

A **pathogen** is:

- A not something the human body can fight.
- B only found in the respiratory system.
- C a type of organism that can cause an infection and disease

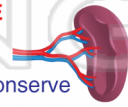


C

4

Which of the following is **TRUE** about the human **spleen**?

- A It helps to filter blood and conserve fluids, much like the kidney.
- B It is an important organ in the process of chemical digestion of foods.
- C It produces all kinds of blood cells in



D

5



A

PREVIEW

7

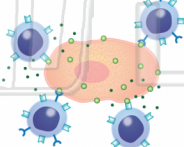
Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

D

9

What type of **blood cell** can attach to cancer cells and **release toxic chemicals** that kill the cancer cells?

- A T lymphocyte
- B macrophage
- C erythrocyte
- D B lymphocyte



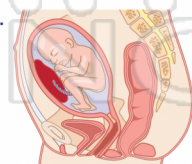
A

10

Passive immunity happens naturally in a developing fetus as **antibodies** are passed from the mother to fetus across the **placenta**.

True or False?

- True
- False



A



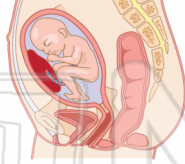
Name _____ Class _____ Date _____

1

Passive immunity happens naturally in a developing fetus as **antibodies** are passed from the mother to fetus across the **placenta**.

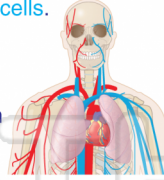
True or False?

True
False

**2**

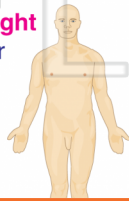
The lungs have a very close connection with the _____, because it is important for the body to **bring in oxygen** and **deliver it** to all body cells.

- A digestive system
- B immune system
- C cardiovascular system
- D reproductive system

**3**

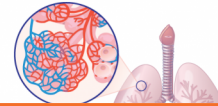
The **skin** provides a **watertight barrier** to bacteria and other organisms that can cause disease in our systems.

True or False?

**4**

The lungs' _____ **allow gases**, such as carbon dioxide and oxygen, to **freely diffuse** back and forth across their walls.

- A veins
- B arteries

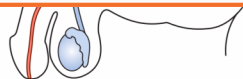
**5**

PREVIEW

7

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

- C testes
- D penis

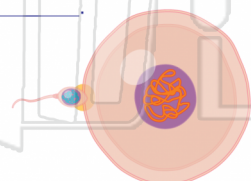


True
False

9

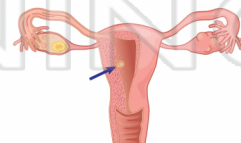
The structure that represents the **earliest stage** of human development is the _____.

- A fetus
- B newborn
- C zygote
- D embryo

**10**

After fertilization, the **embryo will implant or become embedded** within the wall of the _____ in the female reproductive system

- A vagina
- B oviduct
- C uterus
- D ovary





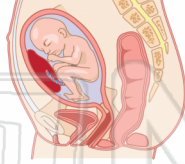
Name _____ Class _____ Date _____

1

Passive immunity happens naturally in a developing fetus as **antibodies** are passed from the mother to fetus across the **placenta**.

True or False?

True
False

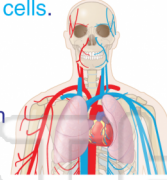


A

2

The lungs have a very close connection with the _____, because it is important for the body to **bring in oxygen** and **deliver it** to all body cells.

- A digestive system
- B immune system
- C cardiovascular system
- D reproductive system

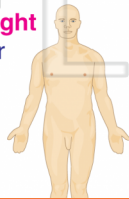


C

3

The **skin** provides a **watertight barrier** to bacteria and other organisms that can cause disease in our systems.

True or False?

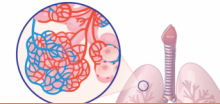


A

4

The lungs' _____ **allow gases**, such as carbon dioxide and oxygen, to **freely diffuse** back and forth across their walls.

- A veins
- B arteries



C

5



D

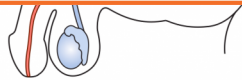
PREVIEW

7

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

A

- C testes
- D penis



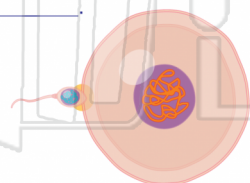
True
False



9

The structure that represents the **earliest stage** of human development is the _____.

- A fetus
- B newborn
- C zygote
- D embryo

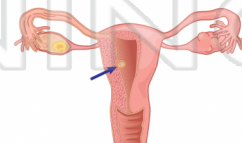


C

10

After fertilization, the **embryo will implant or become embedded** within the wall of the _____ in the female reproductive system.

- A vagina
- B oviduct
- C uterus
- D ovary



C

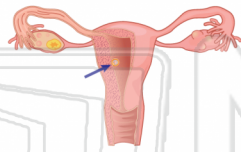


Name _____ Class _____ Date _____

1

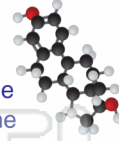
After fertilization, the **embryo will implant** or become **embedded** within the wall of the _____ in the female reproductive system

- A vagina
- B oviduct
- C uterus
- D ovary

**2**

Hormones, including _____, are **released by the ovaries** that act to stimulate growth of the uterus in case pregnancy takes place.

- A testosterone
- B estrogen and progesterone
- C follicle-stimulating hormone
- D growth hormone

**3**

If pregnancy does **not** occur, the **inner lining of the uterus** breaks down and is **shed** from the body during the process of _____.

- A fertilization
- B menstruation

**4**

The _____ gland, found only in males, provides **nourishment and a fluid support** for **sperm cells**.

- A pituitary
- B prostate
- C thymus

**5**

PREVIEW

7

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

False



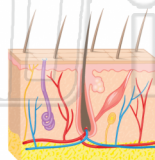
- C keeping our eyesight strong
- D absorbing calcium from our diet to help keep bones strong

9

Nerves that respond to different sensations of touch, temperature, and pain are found primarily in the **epidermis**.

True or False?

- True
- False

**10**

Why does the tissue affected by an **inflammatory response** becomes **red and swollen**?

- A damaged cells grow over
- B pathogens have taken over
- C the blood vessels have widened
- D the person was rubbing his or her skin too much



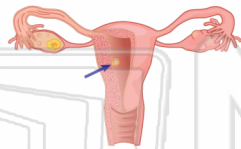


Name _____ Class _____ Date _____

1

After fertilization, the **embryo will implant** or become **embedded** within the wall of the _____ in the female reproductive system

- A vagina
- B oviduct
- C uterus
- D ovary

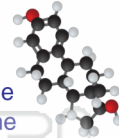


C

2

Hormones, including _____, are **released by the ovaries** that act to stimulate growth of the uterus in case pregnancy takes place.

- A testosterone
- B estrogen and progesterone
- C follicle-stimulating hormone
- D growth hormone



B

3

If pregnancy does **not** occur, the **inner lining of the uterus** breaks down and is **shed** from the body during the process of _____.

- A fertilization
- B menstruation



B

4

The _____ gland, found only in males, provides **nourishment and a fluid support** for **sperm cells**.

- A pituitary
- B prostate
- C thymus



B

5



C

7

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

D

False



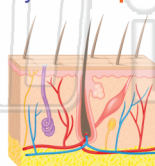
- C keeping our eyesight strong
- D absorbing calcium from our diet to help keep bones strong

9

Nerves that respond to different sensations of touch, temperature, and pain are found primarily in the **epidermis**.

True or False?

- True
- False



B

10

Why does the tissue affected by an **inflammatory response** becomes **red and swollen**?

- A damaged cells grow over
- B pathogens have taken over
- C the blood vessels have widened
- D the person was rubbing his or her skin too much



C



Name _____ Class _____ Date _____

Match each of the following terms to its definition:

Dermis

Fetus

Antigen

Allergic reaction

Embryo

Fertilization

Epidermis

Antibody

1. - an overreaction by the body's immune system when a person is exposed to certain materials such as dust, pollen, latex, or certain foods

2. - a protein produced by B lymphocytes that attaches to an antigen and leads to its removal

3. part of

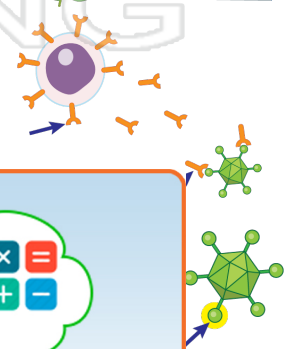
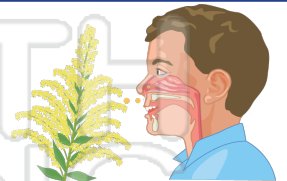
4. tissue

5. eight c
zygote

6. bound

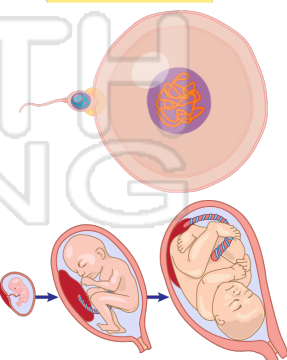
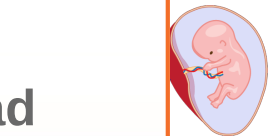
7. - the point at which a single sperm cell enters an egg cell within the female reproductive tract and the genetic material is combined

8. - a developing human from the 9th week to the time of birth; defined by growth of the body and organ systems



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet





Name _____ Class _____ Date _____

Match each of the following terms to its definition:

Dermis

Fetus

Antigen

Allergic reaction

Embryo

Fertilization

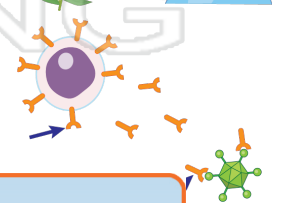
Epidermis

Antibody

1. allergic reaction - an overreaction by the body's immune system when a person is exposed to certain materials such as dust, pollen, latex, or certain foods



2. antibody - a protein produced by B lymphocytes that attaches to an antigen and leads to its removal



3. ant
body c



4. der
nerves

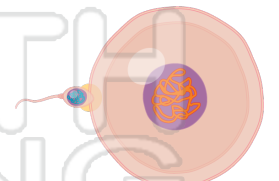
5. em
nine w

6. epi
that c

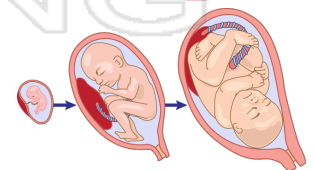
PREVIEW

Please [Sign In](#) or [Sign Up](#) to download
the printable version of this worksheet

7. fertilization - the point at which a single sperm cell enters an egg cell within the female reproductive tract and the genetic material is combined



8. fetus - a developing human from the 9th week to the time of birth; defined by growth of the body and organ systems





Name _____ Class _____ Date _____

Match each of the following terms to its definition:

Fetus

Melanocyte

Lymphocytes

Immunization

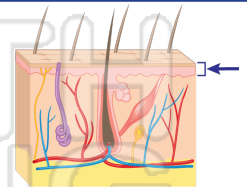
Epidermis

Fertilization

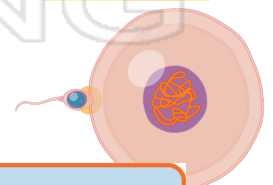
Lymph nodes

Inflammation

1. - the outermost layer of the skin made up of tightly bound cells that create a water-tight physical barrier to the outside world



2. - the point at which a single sperm cell enters an egg cell within the female reproductive tract and the genetic material is combined



3. birth;



4. against

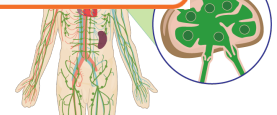
5. as a first

6. lymph

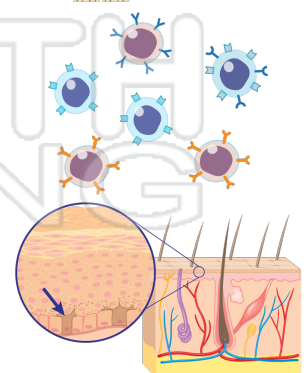
PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

7. - white blood cells important in the specific response of the immune system; can be either B or T lymphocytes



8. color - a pigmented cell of the epidermis that gives skin its color





Name _____ Class _____ Date _____

Match each of the following terms to its definition:

Fetus

Melanocyte

Lymphocytes

Immunization

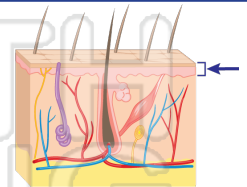
Epidermis

Fertilization

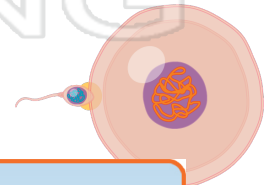
Lymph nodes

Inflammation

1. epidermis - the outermost layer of the skin made up of tightly bound cells that create a water-tight physical barrier to the outside world



2. fertilization - the point at which a single sperm cell enters an egg cell within the female reproductive tract and the genetic material is combined



3. fetus
define



4. immunization
against

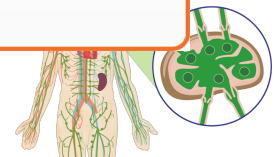
5. inflammation
as a first

6. lymph
lymph

PREVIEW

Please [Sign In](#) or [Sign Up](#) to download
the printable version of this worksheet

7. lymphocytes - white blood cells important in the specific response of the immune system; can be either B or T lymphocytes



8. melanocyte - a pigmented cell of the epidermis that gives skin its color

