



# **The Journey Within Human Development Program**

for  
Middle School - High School  
1st Teacher Edition, 2026

**Developed by:**

Maci Binder, RDMS; Jacob Cortright, MA; Nikki Schaefer, MSW; Michelle Witt, LPN.

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## Introduction: About This Program

Welcome to “The Journey Within”, a powerful fetal development education program, brought to you by Heart of a Child Ministries.

This program is a teacher-led curriculum meant to be easily picked up and implemented over the course of a school year by science teachers, theology teachers or both – for middle school through high school students. Teachers are meant to introduce each lesson through a powerful, short PowerPoint presentation (about 15 -20 minutes long) with short discussion questions, then the corresponding posters are meant to be put up in the classroom. By the end of the year, all 9 posters – and fetal development information from all 9 months of pregnancy – will be shared. For students in faith-based schools, there is also an option to add a spiritual reflection component to this program as well. One full lesson can take 15 – 60-minutes long depending on how much time the teacher wants to devote to discussion and whether he or she includes the supplemental materials and reflections.

It is important to note that in the medical profession, there are two ways to measure pregnancy – from LMP (from the woman’s Last Menstrual Period), or from the official date of conception – when the egg and sperm cells were joined. The information shared in The Journey Within fetal development program is from the date of conception. We measure this way because that is when each unique human being truly begins his or her life. If you think about it, we do not begin our lives the day that our moms ended their periods (LMP). We begin our lives at the moment of our conception; therefore, we measure from the moment of conception and teach using that framework.

### **Included in the program are:**

- **9 science-based fetal development posters covering the 9 months of pregnancy.** The content on these posters has been approved by Heart of a Child Ministries’ medical panel. Photos on the posters have been licensed for use from reputable sources like the Science Photo Library. Information is from solid medical sources like the Cleveland and Mayo Clinics. These can be introduced in the following way: 1 poster per month September - May; 2 posters in October (because it is prolife month- a good month to start the program on) and 1 poster per month the rest of the year; 2 posters per month starting in January- May. The program can also act as a short unit study (over a 2 – 4 week-time period) introducing all the information within this span.

- **9 PowerPoint presentations that go with each monthly poster.** In the PowerPoint presentations are the photos and information from the posters, plus short ultrasound videos and informational videos.
- **9 supplemental spiritual reflections** – for schools who want to implement a spiritual component to this program, there are spiritual reflections that include Scripture, faith-based information with Church teachings and discussions that go with each lesson. Teachers can implement these in the same class that they are introducing the science-based PowerPoints and posters in, or they can choose to bring forth the spiritual information at a separate time during the month or in a different class- like theology.
- **9 quizzes (optional)**- If you would like to quiz your students on the information, 9 short quizzes are provided. Our recommendation is to administer the same quiz both before and after the lesson, to assess how much the students have learned. Grading can be either done by the teacher or by the students. Both options will be discussed further in the lesson for Month One.
- **Teacher's curriculum book** – This is an easy-to-use teacher's guide that is an essential piece of the program – the curriculum book is provided on-line and as a hard copy. It includes a teachers' script that goes with each PowerPoint and poster. Although there is a teacher's script in the notes section of the PowerPoints, we encourage teachers to utilize the script in this curriculum book when sharing PowerPoints as it also includes questions, optional class discussions and activities that go with each lesson. Whether a teacher knows a lot about fetal development or very little, she or he can feel comfortable sharing this program with their students because of the Teacher's Curriculum book.
  - This book also provides supplemental information in the appendix section that addresses possible student questions that may emerge around related topics and supports teachers in answering these questions confidently with additional resources suggested.
  - This book was created by teachers for teachers. In the 2025-2026 school year, three teachers piloted this program. Based on what they learned, the curriculum book was compiled by one of these teachers, Jacob Cortright, and the Heart of a Child Ministries' staff.
- **Fetal development information booklets for your students** – This program comes with 100 beautiful booklets that share all the main facts and photos that are in the

PowerPoint presentations and posters to aid your students in their learning. If more booklets are needed, they can be ordered separately through [heartofachildministries.org](http://heartofachildministries.org)

- **2 sets of fetal models** – a first trimester set and a second/third trimester set are provided to you for additional tangible learning. The models in these beautiful sets are the exact weight and size of real babies in the womb. Students can hold the fetal models and gain a deeper understanding of the reality of human life from the very beginning.
- **Live presentation** - We encourage schools and churches to implement one of our live presentations in collaboration with this program (this is not required but recommended). The live presentation involves fun fetal facts, a powerful live ultrasound on the big screen administered by a sonographer on a pregnancy volunteer, and the school's speaker of choice who will address issues surrounding a vulnerable life group - single moms experiencing a crisis pregnancy, the pre-born human person, people with disabilities, the elderly, the homeless, etc. To learn more about our live presentations, please go to our website at [heartofachildministries.org](http://heartofachildministries.org).
- **Service** - We also encourage (not require) teachers to mentor their students in choosing a “life group” to serve. If a live presentation is held, it is wonderful to choose a service that ministers to the life group that the speaker of choice discussed with the students. Service ideas include holding a diaper drive or baby item drive for a Pregnancy Help Organization; writing letters to the elderly, visiting a nursing home and playing bingo with the residents; spending the afternoon with people with disabilities; serving people in need at a homeless shelter or food bank, donating clothing and food items. This is incorporated because the intent of the program is to deepen the understanding of the beauty and dignity of ALL human life – from the womb to the tomb.

**Thank you for choosing to utilize Heart of a Child Ministries’ “The Journey Within”  
Teacher- Led, Celebration of Life, Fetal Development Program.**

## Lesson 1: The Study of Fetal Development, Terms and Definitions:

### Anticipatory Set:

We are going to be learning about the development of the human person in the womb through posters, PowerPoints, ultrasound videos and other informational videos. We are going to go through a lesson each month – looking at each month of pregnancy from the beginning to the end of the school year (9 months total).

- Introduce today's lesson with the question, "Why do you think that it is important to learn about fetal development and how we were all formed in the womb?" Accept answers, discuss and share, "We learn about how frogs are formed – we dissect them, we learn that they start as an egg and then form into a tadpole, and then become a frog - so isn't it even more important that we learn about ourselves and one another – about how the human race was created from the very beginning- in our mothers' wombs? This hopefully helps us to appreciate ourselves and one another more and (if in a faith-based school say) to recognize the gift of God's creation.
- *For faith-based schools*, consider exploring [THIS](#) impactful, short video clip (beginning at 24:24) featuring a Fr Mike Schmitz quote:

*"Have you ever stopped to consider - yeah, God loves everyone who exists, but have you ever stopped to consider the fact that you didn't have to exist? No offense - you are not a necessary part of creation. Neither am I. You didn't have to exist. So yeah, God loves you, but listen, you didn't have to be, and there is only one reason that you exist: because God wants you to exist. There's only one reason why you are, and that's because God from all eternity looked out at this universe and He declared: 'I do not want a universe without you in it.' God does not want a universe without you in it."*

- Discuss: Many people today believe that humans are just accidents of creation and evolution.
  - o How does this quote from Fr. Mike challenge this idea?
  - o How does it make you feel to know that God wanted *you* specifically? Do you believe that?
  - o What does this mean for the value of each human life?
  - o How can you live with purpose?
  - o How does this idea challenge modern ideas of worth and success?

- Introduce the terms listed on the following page, focusing on the terms that you would like to share with your students. Have the students copy them down as notes or make copies of that page and hand it out to students.
- Are there any questions that students have about these terms? If not, lead with some general questions for light discussion:
  - o What do you already know about the beginning stages of human development or fetal development? Can anyone share any fact that they know?
  - o Has anyone seen an ultrasound before? If so, who did you see it of, and what was it like?
  - o Do you think that the human person can see, hear or taste in the womb? Consider counting the raised hands. Let them know that we will find out this information during the program.
  - o Do you think that a person's preferences and personality can be seen in their behavior in the womb? Can a pre-born person dream? Consider counting raised hands. Let them know that we will find out this information during the program.
  - o What are you curious about regarding human development in the womb? Have students write questions down anonymously and turn them into start the discussion in the next lesson.

### **Terms and Definitions:**

***Pregnancy:*** The frame of time in which a woman is actively growing a separate, unique human person within her own body through the process of human reproduction.

***Trimester:*** One third of a pregnancy cycle. There are three trimesters in pregnancy. The first trimester is months 1-3, Second is months 4-6, and third is months 7-9.

***Egg Cell:*** Also called an “ovum.” This cell is the female reproductive cell; released from a woman’s ovaries each cycle. This cell carries half of the genetic material needed to create a new, unique individual.

***Sperm Cell:*** The male reproductive cell, released from the testes. The cell carries half of the genetic material needed to create a new, unique individual.

***Fertilization/Conception:*** The event in which a sperm cell and an egg cell unite to create a unique, individual human person.

***Cell Division:*** The process by which living cells divide and replicate in a growing organism.

***Zygote:*** The earliest stage of human development; a fertilized, single cell ovum.

***Embryo:*** The stage of human development ranging from the first cell division of the zygote, up to the end of the eighth week of pregnancy.

***Fetus:*** The stage of human development ranging from the end of week eight of pregnancy up to birth.

***Ultrasound:*** Technology that uses sound waves to generate imaging from within a living body. Ultrasound technology is used regularly to examine the pre-born child during pregnancy.

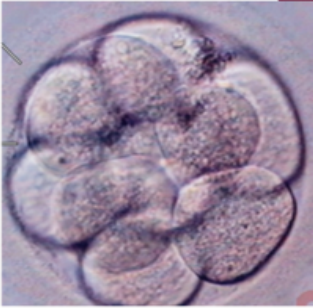
***Gestational Age:*** There are two ways to measure gestational age— 1. LMP (from the woman’s Last Menstrual Period), or from the official date of conception – when the egg and sperm cells joined. The information shared in this program is from the date of conception. We measure this way because that is when each human being truly begins his or her life. If you think about it, we do not begin our lives the day that our moms ended their periods (LMP). We begin our lives at conception. When we measure according to the day of conception, pregnancy is about 2 weeks shorter- just 38 weeks rather than 40- because a woman ovulates about 2 weeks after her period (this is why you will notice that month one covers just 2 weeks total). *Ovulation* is the time in a woman’s cycle when the egg is released and can become fertilized, creating a new human life.

# Fetal Development

## MONTH 1: Conception, Implantation, Development



### Conception and Cell Division

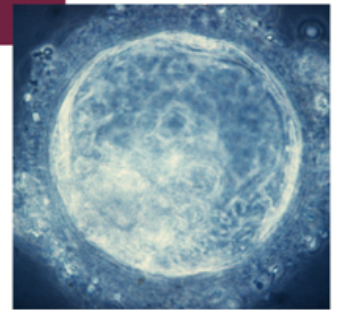


8-cell zygote  
Photo Credit: Endowment for Human Development

- A pre-born person begins when a tiny egg from the mother joins with a cell from the father. The nuclei from both cells fuse together to combine their genetic material, creating a new microscopic cell called a zygote. This zygote has its own unique instructions- called DNA - that determine traits like gender, hair and eye color, height, and skin tone.
- The zygote soon begins its journey down the Fallopian tube, where it divides into two cells, then four cells, and eventually 100 cells.

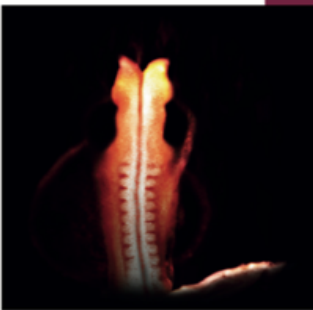
### Implantation and Formation

- When the zygote has grown into a cluster of about 100 cells, it is referred to as a blastocyst and makes its way into the uterus. This tiny bundle of cells implants into the uterus lining and is now called an embryo.
- The amniotic sac then begins to form. The amniotic sac surrounds the growing human being and provides protection and cushioning throughout the pregnancy.
- The placenta will also soon form. It is vital organ that provides nutrients, oxygen, protection, and hormonal support for healthy human growth and development.



Blastocyst  
Photo Credit: Science Photo Library

### Development



MRI of 22-day old embryo  
Photo Credit: Science Photo Library

- The heart starts to beat at just 20-22 days old (going into the 2<sup>nd</sup> month of pregnancy). The whole embryo is only the size of the period at the end of a sentence. Most often the mother doesn't even know that the tiny pre-born person is present.
- The brain, spinal cord, and nerves begin to form. These are the parts that help the body think, move, and feel.
- This MRI scan shows the beginnings of the spinal cord and skeletal muscular system. The neural tube which can be seen here serves as the precursor for the spinal cord. The white ridges on the sides of the neural tubes are called somites and are the basis for the development of the skeletal muscular system.

At the end of month 1, the pre-born person is officially called an "embryo" and is the size of a poppy seed.

INCHES



## Month One: Weeks 0-2

### Anticipatory Set:

- Begin by reviewing some of the terms from last week, and then by reading some of their curiosities and questions about fetal development that they wrote down from last week. Discuss these and let them know that these questions will be answered through this program.
- **Quiz (copy of quiz is at end of each lesson):** When the discussion is naturally stalled, it is a good time to explain to the students about the quizzes in the program if you are choosing to add in the quiz option. Share that you will be giving them both a pre and a post quiz for each lesson- the same quiz will be given both times. Let them know that you do not expect them to know much the first time they take the quiz- and that is completely okay – most people don't know much about human development. Let them know that after they take the pre-quiz, you will proceed to go through the lesson and share about the featured month of pregnancy. You will then give them the same quiz again. Encourage them to pay close attention while you share the lesson so that they can learn and get the answers correct on the second quiz. It will be a fun experiment to see how much you learned in a short time.

**Grading:** As a teacher, you can decide how you want to handle the grading of the quizzes. You can be the one who does the grading, or you can have your students do their own grading in class. If you decide to handle the grading yourself, have them turn in their pre-test immediately after they take it and write PRE on the top with their name. Let them know that you will now go through the lesson and then give them the same test again. Let them know that the quiz that counts as an official grade will be the second one – that should encourage your students to pay close attention to the information shared during the PowerPoint presentation. Go through the PowerPoint presentation and the lesson. Give them the same quiz again. Have them write POST and their name on top and turn the lesson in for you to grade. Share the difference between the first and second tests with your students.

If you decide to have your students do their own grading, have them set the pre-quiz aside after finishing it, then go through the PowerPoint. Give them the post-test immediately after going through the lesson. Read off the answers out loud and have them grade both their pre and post- tests and compare the difference. This can be a fun topic of discussion – sharing the differences between their pre and post-tests together.

- It is now time to give them the Month 1 Pre-Quiz.



Then begin the lesson:

- The pre-born person in the womb changes a lot throughout a typical pregnancy. This time is divided into three stages, called trimesters. Each trimester is a set of three months. There are approximately 9 months total in pregnancy.
- The 1st trimester will span from conception to 12 weeks · During this trimester, the fertilized egg will change from one cell to a small grouping of cells to a fetus who begins to have very visible human features.

### Slideshow Presentation

#### Slide 1

- This first slide show presentation will cover the first few weeks of human development during pregnancy. During these first few weeks, fertilization occurs and the new life grows at an exponential rate.



#### Slide 2 – Fertilization/Conception

- Recall from our terms that fertilization occurs when the reproductive cells of the man and woman, the sperm and ovum cells, combine to become a new organism, genetically and physically unique from both mother and father, called a *zygote*.
- As we can see in the video, the single cell *zygote* makes its first cell division just a little over a day after fertilization. Ongoing cell division will continue rapidly - developing into essential organs and systems (play video).
- It is worth noting that all of the genetic data needed for the entire earthly life of this new person, and the soul of this person (*share this if you are in faith-based school*) are present at the moment of conception- present in this *zygote*.
- If fertilization had occurred just half a second before or after its actual occurrence - by a different sperm cell, then the genetic material of this new person would be completely different. It is important to note that there are 80-300 million sperm present – therefore there are 80-300 million possibilities of a new human person with its own soul, unique genetics and DNA – that determine

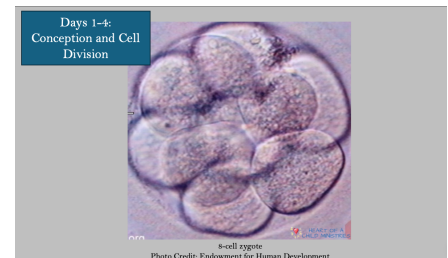


gender, hair color, eye color, height, skin tone, and even personality traits. Each new individual, and each one of us, are therefore entirely unrepeatable, irreplaceable, and truly one in a million (or one in 80-300 million to be exact).

### Slide 3

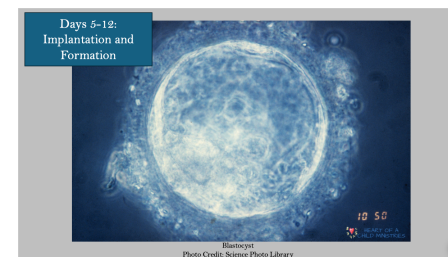
#### Days 1-4: Cell Division

- When conception occurs, it does not occur within the womb. The sperm cells travel to where the ovum cell is located: inside the tubes that connect the uterus and the ovaries. These tubes are called fallopian tubes.
- Cell division then begins, and the *zygote* is now referred to as an *embryo*, the name given to the pre-born person once cell division begins, lasting until the end of the eighth week of pregnancy.



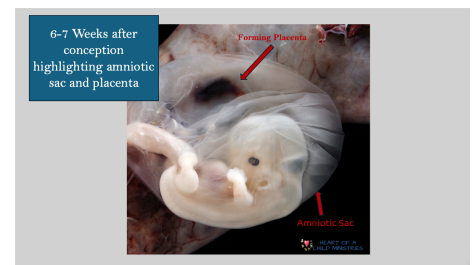
### Slide 4

- When the *embryo* has grown into a cluster of about 100 cells, 5-7 days after conception, it is now referred to as a *blastocyst* and makes its way to the uterus. This tiny bundle of cells then implants into the uterus lining where it will grow and receive nutrients from the mother.



### Slide 5

- As the *embryo* begins to implant into the wall of the mother's uterus, the amniotic sac begins to form. The amniotic sac surrounds the growing human being and provides protection throughout pregnancy.
- *It is worth noting that the image on this slide is taken from an embryo that is 6-7 weeks of age, not 5-7 days of age. The purpose of this image is to show the amniotic sac that we are referring to in the information above.*



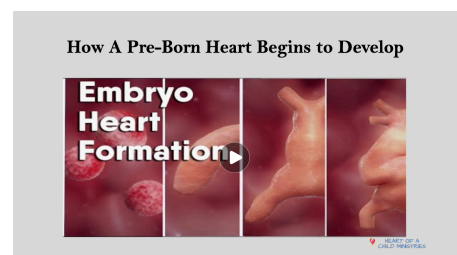
## Slide 6

- The rapidly growing child's heart starts to beat at just 19-22 days old - when the whole embryo is only the size of the period at the end of a sentence. Most often the mother doesn't even know that the tiny pre-born person is present and is still unaware that she is pregnant.
- At the same time, the baby's brain, spinal cord, and nerves begin to form. These are the parts that help the body think, move, and feel.
- This MRI scan photo shows the pre-born person at the age that his or her heart begins to beat. It also shows the beginnings of the spinal cord and skeletal muscular system. Can you find the neural tube, which serves as the precursor for the spinal cord? Can you find the white ridges on the sides of the neural tubes- called somites, which are the basis for the development of the skeletal muscular system?
- At the end of month 1, the pre-born person is only about the size of a poppy seed or a period at the end of the sentence but remember -the heart is already beating.



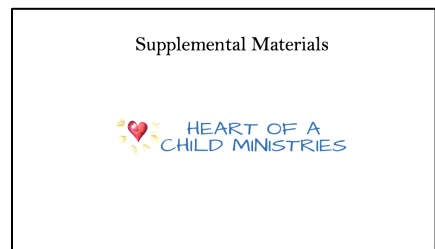
## Slide 7

Let us end with this 2.5-minute video of the formation of the heart.



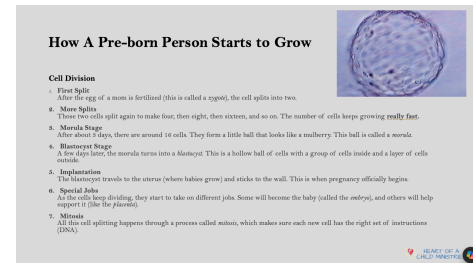
## Slide 8

*Teachers are welcome to use these additional supplemental materials to take a deeper dive into the fetal development information. These resources include additional short video segments and images that offer expanded insights into fetal development stages. They are ideal for enriching classroom discussions, supporting differentiated instruction, or exploring the subject in greater detail.*



### Slide 9

- This slide features the steps of cell division on one organized page. Going through each step is a helpful review and summary of the lesson for the end of class.



### Slide 10

- This is a 7 ½ minute video that captures the full development of the human being in the womb. It can be shown at any time during this educational program to highlight what occurs throughout pregnancy. It might be good to use as a refresher after a holiday or break and is an effective way to begin. It will be shown in month 9 during the main PowerPoint presentation.



### Slide 11

#### Discussion Questions

- What is something that you noticed, either in the presentation or on the poster?
- What is something you wonder about human development?
- What does the study of conception and fetal development tell you about God's design and creative capacity?
- What stood out to you the most about the development of the preborn person in month one?

#### Activity:

- Display the Month 1 poster in the classroom. Give students time to look over it and discuss it informally.

#### Closure:

- Students should complete the Month 1 post-quiz at the end of the class period if you are choosing to add in the quiz option. If you have chosen to have students grade their own quizzes, have them do that as well.
- Additionally, if you are short on time and there are still questions, have students write down their questions to be referenced at the beginning of next month's lesson.
- Hand out the seed packs at the end of the class period to remind students that they were only the size of a poppy seed when their hearts started to beat.

## Month 1- Supplemental Spiritual Reflection

To be holy means to be set apart. The creation of a human being is a holy occurrence. At the moment of conception, the cells from the man and the woman fuse together to combine genetic information and produce a whole new singular cell with its own unique genetic characteristics that have never been created before. In the billions of years that the earth has been in existence and that humanity has thrived, there has never been a person such as this.

The Church also teaches that the soul is created at fertilization. In the Catechism of the Catholic Church 366, it states that “every spiritual soul is created *immediately* by God- it is not ‘produced’ by the parents.” In CCC 365, the Church also shares that it is because of the soul that the body – made up of matter- becomes a living human body; comprised of both spirit and matter.”

In his Encyclical Letter, *Evangelium Vitae* (par. 60), Saint John Paul II says clearly, “From the time that the ovum is fertilized, a life is begun which is neither that of the father nor the mother; it is rather the life of a new human being with its own growth. It would never be made human if it were not human already. This has always been clear, and - modern genetic science offers clear confirmation.”

There is no one like you. There has never been anyone like you. You are set apart and have been from the beginning – from the moment of conception- body and soul.

*Before I formed you in the womb, I knew you. Before you were born,*

*I set you apart; I appointed you as a prophet to the nations (Jeremiah 1:5).*

God gave you your unique gifts and disposition to be used for His glory, to spread His love, His truth- for others - in your own distinct way, a way that no one else can replicate. You have been set apart. You are holy. Your life is holy. Your existence is holy – and therefore so is the existence of every human person – the homeless man, the immigrant, the elderly, isolated neighbor across the street, the pre-born person. Each one of us is set apart – designed to be holy- for we are all composed of body and soul - from the very beginning.

### Month 1 Optional Reflection Activity:

#### **Read 1 Corinthians 12: 4-11**

<sup>4</sup>There are different kinds of gifts, but the same Spirit distributes them.<sup>5</sup>There are different kinds of service, but the same Lord. <sup>6</sup>There are different kinds of working, but in all of them and in everyone it is the same God at work.

<sup>7</sup>Now to each one the manifestation of the Spirit is given for the common good. <sup>8</sup>To one there is given through the Spirit a message of wisdom, to another a message of knowledge by means

of the same Spirit, <sup>9</sup> to another faith by the same Spirit, to another gifts of healing by that one Spirit, <sup>10</sup> to another miraculous powers, to another prophecy, to another distinguishing between spirits, to another speaking in different kinds of tongues,<sup>[a]</sup> and to still another the interpretation of tongues.<sup>[b]</sup> <sup>11</sup> All these are the work of one and the same Spirit, and he distributes them to each one, just as he determines.

1. What are some of the gifts that God has determined for you?

- List your talents (art, writing, music, dance, building/creating, sports, academic gifts):
  
- List your emotional/temperament gifts (empathy, compassion, passion, temperance, kindness, patience, leadership, humility, hospitality):
  
- List your spiritual gifts (wisdom, knowledge, faith, discernment, gift of prayer, prophesy, teaching gifts, healing gifts, gifts of help and council):

2. How can God use these gifts today to bless others- at school, at home and in the community?

- How do you see God using these gifts in your future?

# Month 1 Pre/Post Quiz



- 1** A \_\_\_\_ is a single cell created by the joining of the mother's cell and the father's cell.
  - a) Zygote
  - b) DNA
  - c) Blastocyst
  - d) Fingerprints
- 2** The unique set of instructions that gives the pre-born person traits is called:
  - a) Zygote
  - b) DNA
  - c) Blastocyst
  - d) Fingerprints
- 3** When is a zygote called a blastocyst?
  - a) Days 12-15
  - b) Days 6-10
  - c) Day 22
  - d) Day 1-4
- 4** The \_\_\_\_ is a vital organ that provides nutrients, oxygen, protection, and hormonal support in pregnancy.
  - a) Placenta
  - b) Brain
  - c) Amniotic Sac
  - d) Uterus
- 5** The amniotic sac provides \_\_\_\_ & \_\_\_\_ to the small human being throughout pregnancy.
  - a) food & water
  - b) oxygen & red blood cells
  - c) Protection & cushioning
  - d) placenta & umbilical cord
- 6** A pre-born person's heart starts to beat at:
  - a) 20-22 days old
  - b) 27 days old
  - c) 1 day old
  - d) 7-10 days
- 7** How big is the pre-born person when the heart starts to beat?
  - a) The size of a pea
  - b) The size of a period at the end of a sentence
  - c) The size of a gummy bear
  - d) The size of a blueberry
- 8** The pre-born person's brain, spinal cord, and nerves begin forming on days 18-20.
  - a) True
  - b) False
- 9** What is pre-born called at the end of month 1?
  - a) Embryo
  - b) Blastocyst
  - c) Zygote
  - d) Fetus
- 10** How big is the pre-born person at the end of month 1?
  - a) Poppy seed
  - b) Sesame seed
  - c) Mustard seed
  - d) Sunflower seed



# Month 1 Pre/Post Quiz



- 1 A \_\_\_\_ is a single cell created by the joining of the mother's cell and the father's cell.  
☒ a) Zygote  
☐ b) DNA  
☐ c) Blastocyst  
☐ d) Fingerprints
- 2 The unique set of instructions that gives the pre-born person traits is called:  
☐ a) Zygote  
☒ b) DNA  
☐ c) Blastocyst  
☐ d) Fingerprints
- 3 When is a zygote called a blastocyst?  
☐ a) Days 12-15  
☒ b) Days 6-10  
☐ c) Day 22  
☐ d) Day 1-4
- 4 The \_\_\_\_ is a vital organ that provides nutrients, oxygen, protection, and hormonal support in pregnancy.  
☒ a) Placenta  
☐ b) Brain  
☐ c) Amniotic Sac  
☐ d) Uterus
- 5 The amniotic sac provides \_\_\_\_ & \_\_\_\_ to the small human being throughout pregnancy.  
☐ a) food & water  
☐ b) oxygen & red blood cells  
☒ c) Protection & cushioning  
☐ d) placenta & umbilical cord
- 6 A pre-born person's heart starts to beat at:  
☒ a) 20-22 days old  
☐ b) 27 days old  
☐ c) 1 day old  
☐ d) 7-10 days
- 7 How big is the pre-born person when the heart starts to beat?  
☐ a) The size of a pea  
☒ b) The size of a period at the end of a sentence  
☐ c) The size of a gummy bear  
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☐ c) Mustard seed  
☐ d) Sunflower seed



# Fetal Development

## MONTH 2: 3-6 WEEKS FROM CONCEPTION



### Heart rate detected.



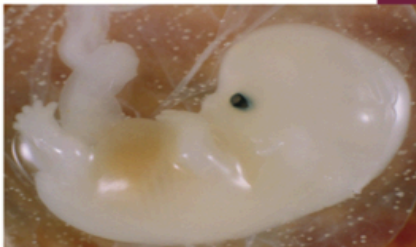
- **The pre-born person – called an embryo – is composed of three layers:**
  - **Ectoderm:** Develops skin, nervous system, eyes, and inner ear
  - **Mesoderm:** Forms the heart, circulatory system, bones, ligaments, kidneys, and reproductive system
  - **Endoderm:** Becomes lungs and intestines
- **Structures for the ears, eyes and mouth begin to form.**
- **Fetal heart rate can now be detected by ultrasound.**

### Arms and legs forming.

- **Face and brain continue to develop.**
- **Limb buds appear, legs begin to form, arms and feet resemble paddles.**
- **The umbilical cord** – evident in this photo – brings nutrients and oxygen from the mother to the pre-born person throughout the pregnancy. When the baby is born, the umbilical cord is cut off and the baby has a belly button to mark its existence.



### All organs developing.



- **All major organs and body systems are forming.**
- **Fingers begin to form.**
- **Eyes are visible.**

At the end of month 2, the term for a pre-born person changes from "embryo" to "fetus" and he or she is now about 1/2 to 1 inch long - the size of a kidney bean.



## Month Two: Weeks 3-6

### Anticipatory Set:

- Introduce today's lesson with a brief review of the last lesson. Are there any questions that students wrote down last week? If not, lead with some general review questions for light discussion.
  - What is the difference between a zygote and an embryo? (see terms in lesson one for answer)
  - What is an organ that is already beginning to operate at this point? (answer – heart)
  - Who remembers when the heart starts to beat? (answer – 19-22 days)
  - What are you curious about at this stage of pregnancy?
- When the discussion is naturally stalled, it is a suitable time to have students complete the month 2 pre-quiz (provided at the end of this lesson) if you are choosing to add in the quiz option. Follow the same protocol as month one – where either you grade them or the class self-grades them together.

### Slideshow Presentation

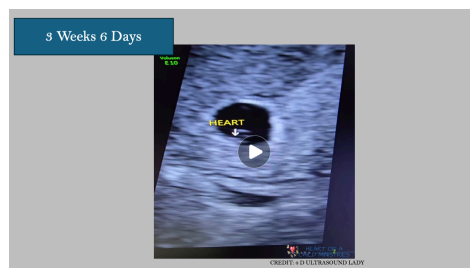
#### Slide 1

- In month two, the pre-born person will be rapidly developing all the essential limbs and organs that allow us to live and move in the world outside the womb.
- Recall from last month, that at this stage, the heart of the pre-born person is already beating. If you recall, it started beating at just 19-22 days (about 3 weeks).



#### Slide 2

During this month, that same heartbeat can be heard and seen through ultrasound technology. This is the slide that we are going to start with – seeing the pre-born person's heartbeat on ultrasound at just 3 weeks 6 days.



This is a 6 second video. *Give your students the challenge of raising their hands as soon as they see the heart movement. Consider playing the video several times.*

### Slide 3

- This is a closer look at what you looked like when your heart was first beating, and you were referred to as an *embryo*.
- The structures needed for the ears, eyes, and mouth are also forming at this stage of development.



### Slide 4

- The *embryo* is composed of three layers:
  - o **ECTODERM:** *Develops skin, nervous system, eyes, and inner ear.*
  - o **MESODERM:** *Forms the heart, circulatory system, bones, ligaments, kidneys, and reproductive system.*
  - o **ENDODERM:** *Becomes lungs and intestines.*

We are now going to watch this 1 ½ minute video that shares about the formation of the ectoderm, mesoderm, and endoderm.



### Slide 5

- As we can see in this incredible imagery, a lot of growth is happening here in Month 2.
- 5 weeks after conception:
  - o The face and brain continue to develop.
  - o Limb buds appear; legs begin forming; arms and feet resemble paddles.
  - o The umbilical cord – evident in this photo – sustains life. Who knows what the umbilical cord brings to the pre-born person? (answer: it brings nutrients and oxygen from the mother to the pre-born person)



When the baby is born, the umbilical cord is severed, and what mark do we all have to show where this lifeline was? (answer: belly button) It is important to note that when the cord is cut, it does not hurt the baby as it contains no sensory nerves. Just like when you trim your fingernails, it does not hurt. It is the same with the cutting of the umbilical cord.

### Slide 6

- Only one week later, 6 weeks after conception:
  - All major organs and body systems are forming.
  - Paddles change to fingers.
  - Eyes become more prominent.
- Most often, women are just discovering that they are pregnant- at this 4–6-week range.
- By the end of month 2, the term for a pre-born person will change from “Embryo” to “Fetus” and he or she is now about 0.5-1 inch long, the size of a kidney bean.
- ***\*\*\*If you are a faith-based school, please show slide 8 in the supplemental materials now. The teaching about the heart in these slides is the center of the faith-based program and is referenced in the supplemental spiritual reflections.***



### Slide 7:

- **Supplemental Materials:**  
*Teachers are encouraged to use these additional supplemental materials to take a deeper dive into the fetal development information. These resources include additional short video segments and images that offer expanded insights into fetal development stages. They are ideal for enriching classroom discussions, supporting differentiated instruction, or exploring the subject in greater detail.*

#### Supplemental Materials



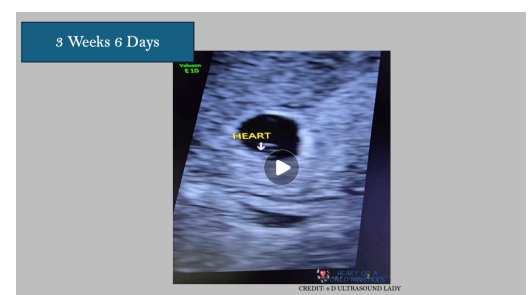
## Slide 8

- We started this lesson by seeing the heartbeat of the pre-born person. Let us recall that beating (pause). Now I ask you, what shape do you see in the center of this photo? (Answer: A cross). Yes, this looks like a cross, but it is the heart of a pre-born person at 20-weeks old. As your heart grows and develops from that first beat to being fully formed at about 20-weeks, the tissue in the center of the four chambers forms a cross.
- This is not an accident. God arranged everything as He wanted when He created us. This mark represents our true identity. We are the Body of Christ, Made in His image, meant to be His hands and feet in the world - meant to receive His love in our hearts and bring it to others.
- Teachers: Take time to have students do the spiritual reflection which takes this concept further.



## Slide 9

- *This is the 6 second video showing the heart pulsing at just 3 weeks after conception that you showed previously. There is a story behind this video that you can share with your students if you would like to explore medical ethics regarding life and the importance of being your own medical advocate.*
- Story behind this video: A mom had a positive pregnancy test and went in for an ultrasound a little before 3 weeks after conception. The sonographer only saw a gestational sac (the sac that the baby would grow in), but she did not notice a heartbeat and assured her that this was normal at this stage. She suggested that she give



the heart time to mature and come back in a week. The mom called her doctor and told him that only the gestational sac was seen on the ultrasound and showed him the photos. They immediately told her that she miscarried and gave her medication that would expel everything in her uterus. The mom didn't feel quite right about taking this medication, and she went back to the sonographer before taking the meds to get another ultrasound. At that appointment - just one week later - at 3 weeks and 6 days - they found the heartbeat. The baby could continue to grow, develop and be born.

- This story confirms that just as there is variance in every human person there can be variance as to when the heart starts to beat - sometimes right at 22 days, sometimes a little earlier or later. It also confirms - that even though doctors are a gift and have great knowledge - they do not always know everything, and it is important to trust yourself and be your own advocate. Does anyone have any thoughts about this or any stories where you or a family member had to be your own medical advocate?

#### Slide 10:

#### Discussion Questions:

- What is something that you noticed either in the presentation or on the poster?
- What is something you wonder about human development?
- Why do you think heartbeat is so important to us as humans? *For faith-based schools -* And what do you think about the cross shape inside our hearts? What does that mean to you?
- What stood out to you the most about the development of the pre-born person in month two?

#### Activity:

- Display the month 2 poster in the classroom. Give students time to look over it and discuss it informally.

- Give students an opportunity to interact with the fetal models. Show them the ones that go with this month. Remind them that the models are the exact weight and size of a human person at this age and stage.
- If you are in a faith-based school, the spiritual reflection could be implemented at this point or later during the month.

**Closure:**

- Students should complete the Month 2 post- quiz at this point if you are choosing to add in the quiz option. Additionally, if you are short on time and there are still questions, have students write down their questions to be referenced at the beginning of next month's lesson. Handle the grading of the quizzes as you have in the previous month's lesson.



## Month 2- Supplemental Spiritual Reflection:

The heart of the pre-born person begins to beat at just 20-22 days old - when the whole body is only the size of a speck. This can be detectable by fetal ultrasound during month 2.

The physical heart is a very significant place in any human being. It is the organ that pumps the blood, flows oxygen into our veins and keeps us alive with its steady rhythm. It is also the part of the human being that we view as being responsible for feeling, empathy, love, seeing and taking in the site of the ocean or a mountaintop, a beautiful poem, a sweet smell, an important moment— for we take these into our hearts and ponder them with all that we are.

The Catechism tells us in CCC 368, that the heart is the place where the person decides for or against God as indicated in a variety of places in Scripture.

*Love the Lord with all of your heart, and with all your soul and all your strength. □*  
(Deuteronomy 6:5)

*I will give you a new heart and put a new spirit in you; I will remove from you your heart of stone and give you a heart of flesh. (Ezekiel 36:26)*

How is this done? We are human beings- it does not always come easily to love with intense passion and to have hearts that are soft and malleable. So how do we do this? We must let God in. We must let Him do the work – to transform us through real relationship with Him. We must spend time with Him and let Him love us first – through the Sacraments and through personal prayer. In doing so we can be healed back to our true identities with Christ. Amazingly so, our true identities are stamped on our hearts while we are being formed in our mother’s wombs. When the heart is fully formed at around 20 weeks, the tissue in the center of the four chambers makes a Cross (see power point slides month 2 after Resources). It is no accident that His mark is stamped in our bodies. For we are the Body of Christ (1 Corinthians 12:27). Jesus is no longer with us in human flesh; therefore, we are the ones called to carry and continue His mission of love - in our bodies - for others.

YOU are meant to be the hands and feet and heart of Christ in this world – using your unique gifts and talents that only you have been given. To do this well, you must first receive His love, know His love deeply, and hold His love in your heart.

### Month 2 Optional Reflection Activity:

Last month we identified our talents and gifts and how God might use them for others. Yet, in order for us to be used fully by God, we must first know how deeply He loves us as His sons and daughters – not because we can do something for Him, but because we just are. We are His precious children, and we are beloved by Him – forever and always and no matter what. We cannot earn His love; we are simply loved.

1. Play the song, “Good, Good Father” by Chris Tomlin. You could also choose another song about the love of God for us.
2. Invite the kids to close their eyes as the music is playing and to listen.
3. Read the Father’s Love Letter (included after this reflection) to them out loud as they are listening in silence, with the music playing softly in the background.
4. Pass out the letters to the students and invite them to read them quietly again to themselves and circle one passage that stood out to them most.
5. Invite them to write about why this passage stood out. What is it saying to them? How can they integrate the truth of this passage more fully into their lives.

# FATHER'S LOVE LETTER

An intimate message from God to you.

*My Child,*

*You may not know me, but I know everything about you. Psalm 139:1 I know when you sit down and when you rise up. Psalm 139:2 I am familiar with all your ways. Psalm 139:3 Even the very hairs on your head are numbered. Matthew 10:29-31 For you were made in my image. Genesis 1:27 In me you live and move and have your being. Acts 17:28 For you are my offspring. Acts 17:28 I knew you even before you were conceived. Jeremiah 1:4-5 I chose you when I planned creation. Ephesians 1:11-12 You were not a mistake, for all your days are written in my book. Psalm 139:15-16 I determined the exact time of your birth and where you would live. Acts 17:26 You are fearfully and wonderfully made. Psalm 139:14 I knit you together in your mother's womb. Psalm 139:13 And brought you forth on the day you were born. Psalm 71:6 I have been misrepresented by those who don't know me. John 8:41-44 I am not distant and angry, but am the complete expression of love. 1 John 4:16 And it is my desire to lavish my love on you. 1 John 3:1 Simply because you are my child and I am your Father. 1 John 3:1 I offer you more than your earthly father ever could. Matthew 7:11 For I am the perfect father. Matthew 5:48 Every good gift that you receive comes from my hand. James 1:17 For I am your provider and I meet all your needs. Matthew 6:31-33 My plan for your future has always been filled with hope. Jeremiah 29:11 Because I love you with an everlasting love. Jeremiah 31:3 My thoughts toward you are countless as the sand on the seashore. Psalm 139:17-18 And I rejoice over you with singing. Zephaniah 3:17 I will never stop doing good to you. Jeremiah 32:40 For you are my treasured possession. Exodus 19:5 I desire to establish you with all my heart and all my soul. Jeremiah 32:41 And I want to show you great and marvelous things. Jeremiah 33:3 If you seek me with all your heart, you will find me. Deuteronomy 4:29 Delight in me and I will give you the desires of your heart. Psalm 37:4 For it is I who gave you those desires. Philippians 2:13 I am able to do more for you than you could possibly imagine. Ephesians 3:20 For I am your greatest encourager. 2 Thessalonians 2:16-17 I am also the Father who comforts you in all your troubles. 2 Corinthians 1:3-4 When you are brokenhearted, I am close to you. Psalm 34:18 As a shepherd carries a lamb, I have carried you close to my heart. Isaiah 40:11 One day I will wipe away every tear from your eyes. Revelation 21:3-4 And I'll take away all the pain you have suffered on this earth. Revelation 21:3-4 I am your Father, and I love you even as I love my son, Jesus. John 17:23 For in Jesus, my love for you is revealed. John 17:26 He is the exact representation of my being. Hebrews 1:3 He came to demonstrate that I am for you, not against you. Romans 8:31 And to tell you that I am not counting your sins. 2 Corinthians 5:18-19 Jesus died so that you and I could be reconciled. 2 Corinthians 5:18-19 His death was the ultimate expression of my love for you. 1 John 4:10 I gave up everything I loved that I might gain your love. Romans 8:31-32 If you receive the gift of my son Jesus, you receive me. 1 John 2:23 And nothing will ever separate you from my love again. Romans 8:38-39 Come home and I'll throw the biggest party heaven has ever seen. Luke 15:7 I have always been Father, and will always be Father. Ephesians 3:14-15 My question is... Will you be my child? John 1:12-13 I am waiting for you. Luke 15:11-32*

*Love, Your Dad  
Almighty God*



# Month 2 Pre/Post Quiz



- 1** Which is NOT a layer of the embryo?
  - a) Myometrium
  - b) Ectoderm
  - c) Mesoderm
  - d) Endoderm
- 2** The Ectoderm:
  - a) Develops skin, nervous system, eyes, & inner ear
  - b) Forms bones
  - c) Becomes the lungs and intestines
  - d) Is the heart
- 3** The fetal heartbeat can be detected by ultrasound at:
  - a) Weeks 6-7 after conception
  - b) Weeks 3-4 after conception
  - c) Weeks 8-9 after conception
  - d) Weeks 1-2 after conception
- 4** The \_\_\_\_ brings nutrients and oxygen from the mother to the pre-born person throughout pregnancy.
  - a) Uterus
  - b) Amniotic sac
  - c) Umbilical cord
  - d) Placenta
- 5** What is a landmark on the baby to show where the umbilical cord was?
  - a) Birth mark
  - b) Belly button
  - c) Spine
  - d) Knee
- 6** At 5 weeks after conception, this is happening:
  - a) face and brain continue to develop
  - b) the heart is beating
  - c) limb buds are forming
  - d) all of the above
- 7** At 5 weeks after conception, the hands and feet are forming and resemble paddles.
  - a) True
  - b) False
- 8** The eyes, ears, and mouth are not forming this month.
  - a) True
  - b) False
- 9** At 6 weeks after conception, what is happening?
  - a) All major organ systems are forming
  - b) Fingers and toes are forming
  - c) Eyes are visible
  - d) All of the above
- 10** How big is the baby at the end of month 2?
  - a) Pea
  - b) Green bean
  - c) Kidney bean
  - d) Sunflower seed



# Month 2 Pre/Post Quiz



- 1 Which is NOT a layer of the embryo?  
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a) Pea  
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☒ c) Kidney bean  
d) Sunflower seed

# Fetal Development

## MONTH 3: 7-10 WEEKS FROM CONCEPTION



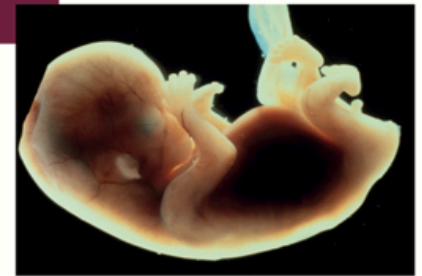
9 weeks after conception  
Photo Credit: Lunar Caustic

### Teeth are growing.

- Teeth and taste buds are forming.
- All organs, limbs, bones and muscles are present and will continue to develop.

### Ears are developing.

- Eyelids and ears are developing.
- Circulatory, digestive and urinary systems are all functioning.
- Knees, elbows and ankles are working, but it is too early for the mom to feel kicks.



9-11 weeks after conception  
Photo Credit: Science Photo Library

### Fingerprints are forming.



- Arms, hands, fingers, feet and toes are fully formed.
- The pre-born person is opening and closing his or her fists and mouth.
- Fingerprints, fingernails, and toenails are developing, with the fingerprints often starting at just 9 weeks after conception.

3D Ultrasound of hand, 12 weeks after conception  
Photo Credit: Science Photo Library



At the end of month 3, the pre-born person is about 2 1/2 to 3 inches long - the size of a plum.

INCHES

## Month Three: Weeks 7-10

### Anticipatory Set:

- Introduce today's lesson with a brief review of the last lesson. Are there any questions that students wrote down last week? If not, lead with some general review questions for light discussion.
  - Who remembers- what are the three layers of the embryo? (endoderm, ectoderm, mesoderm)
  - Who remembers what shape is formed in the center of our hearts when we become 20 weeks? (cross)
  - What are you curious about at this stage of pregnancy?
- When the discussion is naturally stalled, it is a good time to have students complete the Month 3 pre-quiz if you are choosing to add in the quiz option. Follow the same protocol as the previous month – where either you grade them or the class self-grades them together.

### Slideshow Presentation

#### Slide 1

- In Month 3, many of the more complex systems of the pre-born person are developing. There is also a lot more movement going on at this point, with observable activity and “practice” motions to help strengthen the baby's developing muscles, joints, and skeleton.



#### Slide 2

- 9 weeks after conception, teeth and taste buds are forming. This means that the baby's taste preferences are going to start forming as they practice eating and swallowing motions (hold up the 9-week-old embryo from your fetal model set so that students can see exact size).
- All organs, limbs, bones, and muscles are present and will continue to develop in utero and throughout their youth.
- As you can see in this image, the facial structures are already rapidly growing and differentiating. There are discernable fingers and toes all developing at the same time.





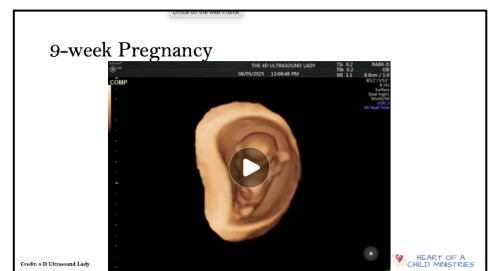
### Slide 3

- 9-11 weeks after conception, the circulatory, digestive, and urinary systems are all working.
- The eyelids, eyes, and ears are developing, as seen in this image.
- Knees, elbows, and ankles are working and moving around. Even though this motion can be seen on ultrasound, it is still too early for the mother to feel any kicks.



### Slide 4

- This is a powerful 19 second video of a 4 D ultrasound highlighting a pre-born person in the womb moving and kicking at 9 weeks. All the baby's joints, including the knee, elbow, shoulder, ankle, and wrist joints, are working and allowing the baby to move about freely within the amniotic sac.



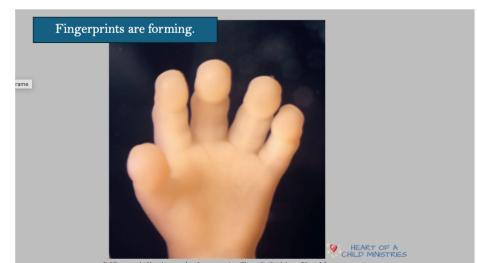
### Slide 5

- This is an amazing 13-second video that showcases fetal eye development using real fetal imaging, offering a compelling visual insight into this stage of growth.



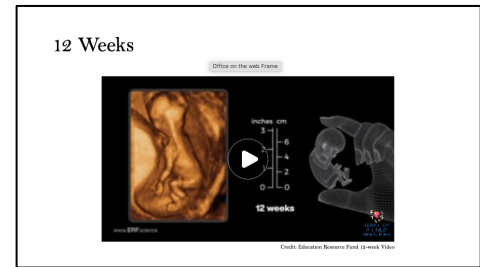
### Slide 6

- 10 weeks after conception, the arms, hands, fingers, feet, and toes are fully formed. They will continue to grow throughout the child's life and into puberty (hold up 10-week-old fetal model).
- At this stage, the pre-born baby begins opening and closing his or her fists and mouth, practicing both grasping and eating.
- The fingerprints, fingernails, and toenails are all developing. These are the same fingerprints this person will carry for their entire life.
- At the end of month 3, the pre-born person is about 2 1/2 -3 inches long and the size of a plum.

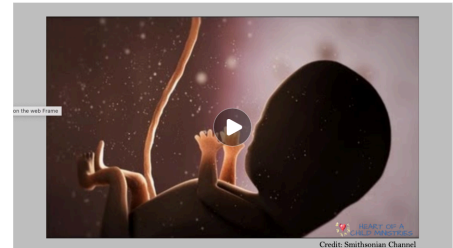


**Slide 7**

- This is a 35 second video showing a pre-born human person at 12 weeks in the womb on 3D ultrasound and camera imaging. On the video, you can see the hands clearly – even the fingernails.

**Slide 8**

- This is an interesting 2 minute, 30 second video on how fingerprints develop in the womb.

**Slide 9****Discussion Questions:**

- What is something that you noticed, either in the presentation or on the poster?
- What is something you wonder about human development?
- What do you think the uniqueness of our fingerprints can teach us about our uniqueness as individual persons?
- What stood out to you the most about the development of the preborn person in month three?

**Activity:**

- Display the Month 3 poster in the classroom. Give students time to look over it and discuss it informally with each other.
- Give students an opportunity to interact with the fetal models. Show them the ones that go with this month. Remind them that the models are the exact weight and size of a human person at this age and stage.
- If you are in a faith-based school, spiritual reflection could be implemented at this point or later during the month.

**Closure:**

Students should complete the Month 3 post- quiz at this point if you are choosing to add in the quiz option. Additionally, if you are short on time and there are still questions, have students write down their questions to be referenced at the beginning of next month's lesson. Follow the same protocol for grading the pre and post-quizzes as you did in the previous months.

### Month 3 - Supplemental Spiritual Reflection:

In month 3, fingerprints are forming. Just as there are no two human people who are alike, there are also no two sets of fingerprints that are the same. This is one of your distinct external markings that make you, YOU. Fingerprints are used to detect the criminal behind the crime – to detect the real identity of the human person.

Interestingly enough, your fingerprints were formed based upon your DNA that was present at the moment of your conception. The shape and direction of the swirls and lines on your fingers were passed down from your parents. They were also created based upon the amount of amniotic fluid in your mother's womb and your movement and positioning. This is why they are always unique and nonreplicable – because your DNA and experience in the womb are unique to you.

(Invite the students to now compare their fingerprints with the person next to them and look at the differences. Then invite them to share the differences that they noticed or write them down.)

Just as you noticed the differences between your fingerprints and those of your classmates, it is important that we notice the overall differences in one another and celebrate these differences. For we are all meant to be the Body of Christ together- using our different gifts for others. If each one of us did this – celebrating and using our unique talents and dispositions to the fullest - as one Body, one Spirit in Christ - the world would be a transformed place.

How can we do this? Someone's advice that we can trust regarding being the Body of Christ is Padre Pio's. For he literally was given the physical Body of Christ. While praying in front of the crucifix, Padre Pio had a supernatural experience and received the stigmata of Christ – the marks of His passion with the open nail holes in his hands and feet. When asked what the most painful wound was, Pio stated, "It is my shoulder wound, which no one knows about, and it has never been cured or treated." This is the wound that cut all the way to his bone, caused by carrying the cross.

Some of Padre Pio's thoughts to us on how to live as the Body of Christ are:

*"As long as one has God as a foundation, everything else falls into place."*

*"In all that you do, always be humble, guarding jealously, the purity of your heart and the purity of your body; these are the two wings which shall raise us to God and make us almost Divine."*

*"Do not worry over things that generate preoccupation, derangement and anxiety. One thing only is necessary: to lift up your spirit and love God in all things."*

*"Prayer is the key that opens the heart of God."*

*"Holy Communion is a fusion between oneself and God."*

*“If we are calm and persevering, we shall find not only ourselves, but our souls, and with that, God Himself.”*

Other saints – both male and female- who have received the stigmata are St. Catherine of Seinna, St. Francis of Assisi, and St. Rita of Cascia.

Most of us are not called to receive the actual physical body of the crucified Christ like these saints, but ALL of us are called to be saints and to be the Body of Christ – celebrating one another’s unique gifts and working together to radically bring forth His love.

### **Month 3 Optional Reflection Activity:**

Read 1 Corinthians 12: 12-18, about the unity and diversity in the Body of Christ:

*“Just as a body, though one, has many parts, but all its many parts form one body, so it is with Christ. For we were all baptized by<sup>one</sup> one Spirit so as to form one body—whether Jews or Gentiles, slave or free—and we were all given the one Spirit to drink. Even so the body is not made up of one part but of many.*

*Now if the foot should say, ‘Because I am not a hand, I do not belong to the body,’ it would not for that reason stop being part of the body. And if the ear should say, ‘Because I am not an eye, I do not belong to the body,’ it would not for that reason stop being part of the body. If the whole body were an eye, where would the sense of hearing be? If the whole body were an ear, where would the sense of smell be? But in fact, God has placed the parts in the body, every one of them, just as he wanted them to be. If they were all one part, where would the body be? As it is, there are many parts, but one body.”*

Reflection questions:

1. Do I compare myself to others? In what way? Give an example.
  
2. Does my comparison make me feel not as good as others, therefore not as valuable? If so, how does this affect my view of myself and my ability to confidently be myself in this world? Describe this.
  
3. If you find yourself, comparing often and feeling doubtful about your gifts, I invite you to place the Letter from God that you received last month in a prominent place – by your bed, on your bathroom mirror, etc. Read it often and be reminded of God’s love for you. God has a plan and a purpose for your life – using the unique gifts and talents that He determined for you- and that plan is good (Jeremiah.).

Continue reading the passage: *"The eye cannot say to the hand, 'I don't need you!' And the head cannot say to the feet, 'I don't need you!' On the contrary, those parts of the body that seem to be weaker are indispensable, and the parts that we think are less honorable we treat with special honor. And the parts that are unpresentable are treated with special modesty, while our presentable parts need no special treatment. But God has put the body together, giving greater honor to the parts that lacked it, so that there should be no division in the body, but that its parts should have equal concern for each other. If one part suffers, every part suffers with it; if one part is honored, every part rejoices with it."*

1. Do I see others as not as good as myself or my friends, and therefore do I view them and treat them as less valuable? OR do I see myself and areas in myself as not worthy and not needed. If either or both of these are true, give examples.
  
2. If you have identified areas that you do this or have done this, reflect on how God made each of one of us differently – created to bring a variety of needed gifts into the world. If all of us were the same, the vast needs of others, could not possibly be met. Some of us are empathetic and see troubles easily and step into the role of a merciful, quiet giver. Others of us are prophets and teachers, can speak with ease and truth, and are meant to bring others to Christ with more of a public ministry of leadership. Both are needed, both are essential, and neither is more or less important than the other.
  
3. Write a prayer, asking the Lord to help you to restrain from criticism of others who are different than you or of areas in yourself that you do not see as valuable. Now, identify ways that you can celebrate the differences in others and in yourself.

# Month 3 Pre/Post Quiz



- 1** At 7-10 weeks from conception, teeth and \_\_\_\_ are forming and growing.
  - a) organs and limbs
  - b) bones and muscles
  - c) taste buds
  - d) all of the above
- 2** The pre-born person's knees, elbows, and ankles are working by:
  - a) week 7-10 after conception
  - b) month 13-15 after conception
  - c) day 10-12 after conception
  - d) week 2-3 after conception
- 3** The fetal circulatory, digestive, and urinary systems are functioning in Month 3.
  - a) True
  - b) False
- 4** The fingernails, toenails, and \_\_\_\_ are developing in weeks 7-10 from conception. .
  - a) heartbeat
  - b) fingerprints
  - c) brain
  - d) bones
- 5** The arms, hands, fingers, feet, and toes are NOT fully formed by this age and stage.
  - a) True
  - b) False
- 6** The pre-born person begins opening and closing their \_\_\_\_ & \_\_\_\_ at this stage.
  - a) hands
  - b) mouth
  - c) A & B
  - d) none of the above
- 7** How big is the pre-born person at the end of month 3?
  - a) Peanut
  - b) Plum
  - c) Kidney bean
  - d) Banana



# Month 3 Pre/Post Quiz



- 1** At 7-10 weeks from conception, teeth and \_\_\_\_ are forming and growing.
  - a) organs and limbs
  - b) bones and muscles
  - c) taste buds
  - ☒ d) all of the above
- 2** The pre-born person's knees, elbows, and ankles are working by:
  - ☒ a) week 7-10 after conception
  - b) month 13-15 after conception
  - c) day 10-12 after conception
  - d) week 2-3 after conception
- 3** The fetal circulatory, digestive, and urinary systems are functioning in Month 3.
  - ☒ a) True
  - b) False
- 4** The fingernails, toenails, and \_\_\_\_ begin to develop in weeks 7-10.
  - a) heartbeat
  - ☒ b) fingerprints
  - c) brain
  - d) bones
- 5** The arms, hands, fingers, feet, and toes are NOT fully formed by this age and stage.
  - a) True
  - ☒ b) False
- 6** The pre-born person begins opening and closing their \_\_\_\_ & \_\_\_\_ at this stage.
  - a) hands
  - b) mouth
  - ☒ c) A & B
  - d) none of the above
- 7** How big is the pre-born person at the end of month 3?
  - a) Peanut
  - ☒ b) Plum
  - c) Kidney bean
  - d) Banana

# Fetal Development

## MONTH 4: 11-14 WEEKS FROM CONCEPTION



### Thumb sucking occurs.

- The pre-born person can make faces, suck his or her thumb, and kick his or her feet.
- **Bones are hardening** and can be seen on ultrasound, like this one. The brightest white areas on an ultrasound indicate the bones.



Ultrasound, 13 weeks after conception  
Photo Credit: Pregnancy Chat

### Flipping happens.



3D Ultrasound of Twins, 16 weeks after conception  
Photo Credit: Science Photo Library

- The pre-born person can **flip**, move sideways and change positions, as indicated on this 3D ultrasound of twins.
- The pre-born person **inhales and exhales** small amounts of amniotic fluid to practice breathing. This helps to strengthen muscles and develop lungs.
- By the end of the month, eyes are still closed, but the **pre-born person can perceive light** and make squinting facial expressions.

### Hair is growing.

- Scalp hair pattern is forming, and **fine hair begins to grow**.
- **Skin is thin and transparent**, but is getting thicker.
- **Vocal cords are forming**, preparing for future talking and singing.



At the end of month 4, the pre-born person is about 5 inches long - the size of a large avocado.



13 weeks after conception  
Photo Credit: Science Photo Library

## Month Four: Weeks 11-14

### Anticipatory Set:

- Introduce today's lesson with a brief review of the last lesson. Are there any questions that students wrote down last week? If not, lead with some general review questions for light discussion.
  - What is something that began to develop in month 3 that has significance? (variety of answers are possible here – fingerprints and fingernails are one of them)
  - What is significant about fingerprints? (no two are alike, they are used to identify us)
  - What are you curious about at this stage of pregnancy?

When the discussion is naturally stalled, it is a good time to have students complete the Month 4 pre-quiz if you are choosing to add in the quiz option. When they are finished, you will handle the pre-quiz and post-quiz the same way that you did in the other months.

### Slideshow Presentation

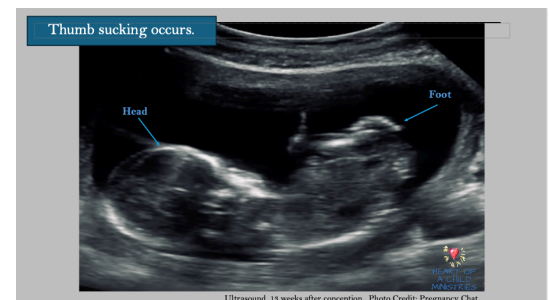
#### Slide 1

- We are now entering into the second trimester. The second trimester spans from 11-26 weeks after conception. During this time, the pre-born person is also getting larger; therefore, women begin to show the physical signs of being pregnant.
- In Month 4, development continues to occur in the key functions and systems, and the pre-born person begins to perform more typical human behaviors.



#### Slide 2

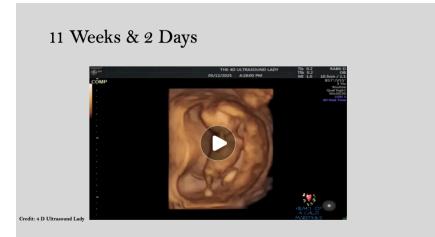
- The pre-born person can make faces, suck his or her thumb and kick his or her feet.
- Bones are hardening and can be seen on ultrasound, like this one. The brightest white areas on an ultrasound indicate the bones, the darkest areas indicate fluid.



- Gender can be identified through a blood test at 10 weeks (hold up 10-week-old fetal model). It can also be identified through ultrasound sometimes as early as 14 weeks, but for sure by 16-20 weeks.

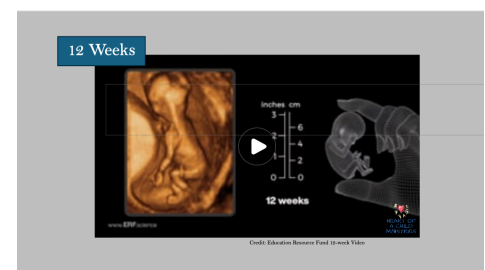
### Slide 3:

This slide shows a 4D ultrasound video of an 11-week old pre-born person in womb.



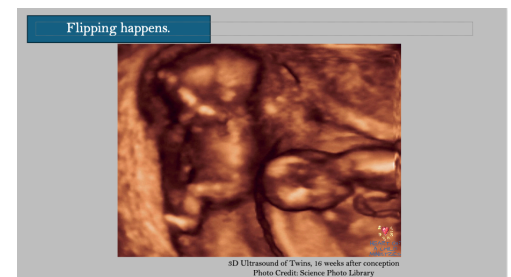
### Slide 4:

- The brain of a 12-week-old fetus develops 250,000 new neurons per minute. That is 15 million per hour. What an incredible rate of growth! (Hold up 12-week-old fetal model).
- The brain of a 9-month fetus will have 1 billion neurons, the approximate number of stars in the Milky Way Galaxy.



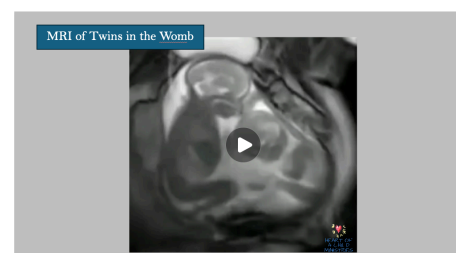
### Slide 5

- The pre-born person can now flip, move sideways, and change positions, as indicated on this 3D ultrasound of twins.
- The pre-born person inhales and exhales small amounts of amniotic fluid to practice breathing. This helps strengthen muscles and develop lungs.
- By the end of the month, eyes are still closed, but the pre-born person can perceive light and make squinting facial expressions.



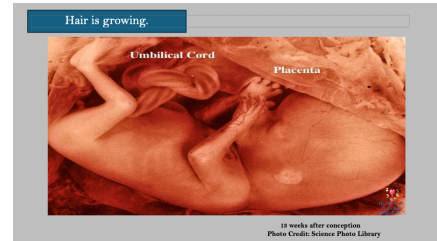
### Slide 6

This short video of an MRI of twins shows them moving and swallowing in the womb. What do you think that this video might show about the possible temperaments and personalities of these two different humans?



### Slide 7

- Hair patterns are forming as fine hair begins to grow.
- Skin is thin and transparent but getting thicker.
- Vocal cords are forming, preparing for future talking and singing.
- At the end of month 4, the pre-born person is about 5 inches long - the size of a large avocado.



### Slide 8

#### Discussion Questions

- What is something that you noticed, either in the presentation or on the poster?
- What is something you wonder about human development?
- We just saw twins interacting on an MRI. Because twins are formed next to one another all nine months in the womb and are used to interacting and being close to each other, do you think that they should be kept close after birth (share cribs, sleep next to each other, etc.)? Doctors feel this way. Because twins are so used to being next to one another, the medical profession feels that it is good to keep them close to one another after birth so that they can adjust well. Is anyone a twin or do you know twins – are their personalities alike or different? Do they look alike or different? This could be a fun discussion.
- What stood out to you the most about the development of the pre-born person in Month 4?

#### Activity:

- Display the Month 4 poster in the classroom. Give students time to look over it and discuss it informally with each other.
- Give students an opportunity to interact with the fetal models. Show them the ones that go with this month. Remind them that the models are the exact weight and size of a human person at this age and stage.
- If you are in a faith-based school, spiritual reflection could be implemented at this point or later during the month.

#### Closure:

Students should complete the Month 4 post-quiz at this point if you are choosing to implement the quiz option. Additionally, if you are short on time and there are still questions, have students write down their questions to be referenced at the beginning of next month's lesson. Continue with the same grading protocol as in previous months.



## Month 4 - Supplemental Spiritual Reflection:

There are two reflection options provided this month – one about God’s movements in our lives, and the other about gender. Please use one or both – whichever fits your students and time frame best.

### Spiritual Reflection Option 1:

One of the key developmental facts that characterizes this month is movement. The pre-born person is consciously moving. By the end of the month, the movements are no longer sporadic, but they are intentional. The little human being can flip and turn and explore fingers and feet. Some moms may even feel their baby’s activity for the first time by the 16<sup>th</sup> or 17<sup>th</sup> week – an experience called “quickenings” - because of the quick little flutters that are felt.

The word “movement” is associated with spiritual experiences as well.

*For we live and **move** and have our being. As some of your own poets have said, ‘We are his offspring.’ Therefore, since we are God’s offspring, we should not think that the divine is like gold or silver or stone – an image made by human design and skill. (Acts 17:28-29)*

Just as a baby at this age and stage is actively moving, our God is not a God of stone but an active conscious participant in our lives – revealing His love to us love in conscious continual movement – through the Church, through His creation, through one another, and within ourselves.

We experience God actively in the Church. Reading the living word of Scripture is a powerful way to hear His truth and apply it to our daily lives. Listening to the stories from the lives of the Saints helps us to identify how God can work actively in real people’s lives when hearts are wide open to His movements. Receiving the Sacraments through the Eucharist and Confession allows us to experience Jesus’s tangible, sacrificial love and mercy on a regular basis.

God’s hand is seen and experienced in His creation – in the majesty of the mountains, the brilliant hues of the sunset and the intricate weavings of a leaf. God loves us and wants to make His heart tangible to us – His creativity and abundance shine forth for us through the beauty of earth – His great masterpiece.

His greatest masterpiece is the Creation of the human being. We can experience God’s living love deeply through the care and support of one another and in the peace and joy that we experience in our own souls. Identifying the movements in our own souls is key to understanding how God is directing our lives. St Ignatius was known for developing protocol of discerning the movement of the spirit based upon our introspection of our daily lives.



### Option 1 Reflection Activity:

Choose one reflection experience listed below to implement with your students or do them all – having students do one per week – whatever you have time to implement.

1. Experience God's movement in the Church.
  - Have students WRAP Scripture.  
WRAP stands for the following steps: Write, Reflect, Apply, and Pray.
  - Start with the Scripture mentioned above:

*For we live and **move** and have our being. As some of your own poets have said, 'We are his offspring.' Therefore, since we are God's offspring, we should not think that the divine is like gold or silver or stone – an image made by human design and skill. (Acts 17:28-29)*

**Write** – have students write down the sentence or phrase that stands out to them most.

**Reflect**– have students reflect on what this phrase speaks to them.

**Apply** – have students apply this reflection to their lives – how can they integrate this into their own lives or how is this phrase speaking personally to them and identify how and where it applies into their lives.

**Pray** – have students write down a prayer asking for God's help in applying this Scripture to their lives

2. Experience God's movement through nature. Consider going on a nature walk and have kids really look at things – have them pick up an object that speaks to them or sit in a space that is beautiful to them and journal about what it speaks to them about God or consider picking up a leaf and have them really look at the lines that make up that leaf- and have them reflect on what that tells them about who God is.
3. Experience God's movements through one another. Have kids keep a gratitude journal for the week – noticing areas where they experienced God's grace through acts of kindness that they are grateful for.
4. Experience God within ourselves. Have the kids practice the Examination of Conscious by St. Ignatius of Loyola at the end of each day that week – identifying the movements of the spirit within. Discuss this experience and encourage them to continue to practice this in their lives.

### **Spiritual Reflection Option 2:**

Gender can be determined as early as 10 weeks through a blood test and sometimes as early as 14 weeks through ultrasound. Gender is assigned through your DNA -at the moment of conception.

Genesis 1: 27 states, *“For God created mankind in his own image, in the image of God he created them; male and female he created them.”*

Paragraph 369 of the *Catechism of the Catholic Church* states: "Man and woman have been *created*, which is to say, *willed* by God: on the one hand, in perfect equality as human persons; on the other, in their respective beings as man and woman. 'Being man' or 'being woman' is a reality which is good and willed by God: man and woman possess an inalienable dignity which comes to them immediately from God their Creator. Man and woman are both with one and the same dignity 'in the image of God'. In their 'being-man' and 'being-woman', they reflect the Creator's wisdom and goodness."

### **Option 2- Reflection Activity:**

Our gender is a gift from God, defined at the moment of conception. “For I know the plans that I have for you, plans to give you a hope and a future” (Jer 29:11). Part of God’s plan for us involves using the gifts of our specific gender to bring His love into the world. Discuss what some of the gifts that the male gender typically brings more strongly into the world are. What are some of the gifts that the female gender typically brings more strongly into the world?

# Month 4 Pre/Post Quiz



- 1** Bones show up \_\_\_\_\_ on ultrasound.
  - a) black
  - b) bright white
  - c) invisible
  - d) red
- 2** By month 4, the pre-born person can:
  - a) makes faces
  - b) suck their thumb
  - c) kick their feet
  - d) all of the above
- 3** Month 4 is weeks \_ - \_ after conception.
  - a) 11-14
  - b) 6-10
  - c) 12-15
  - d) 15-18
- 4** At this age and stage, the pre-born person's skin is thin and transparent.
  - a) True
  - b) False
- 5** By the end of the month, the \_\_\_\_ are still closed, but light can be perceived.
  - a) ears
  - b) fingers
  - c) eyes
  - d) mouth
- 6** The scalp pattern is forming, and fine \_\_\_\_ is beginning to grow.
  - a) nails
  - b) teeth
  - c) hair
  - d) feet
- 7** By this age, the fetal bones are hardening.
  - a) True
  - b) False
- 8** \_\_\_\_ \_\_\_\_ begin to form at this stage, preparing for future talking and singing.
  - a) Hamstrings
  - b) Vocal cords
  - c) Knee caps
  - d) Eustachian tubes
- 9** At the end of month 4, the pre-born person is about 10 inches long.
  - a) True
  - b) False
- 10** How big is the baby at the end of month 4?
  - a) Banana
  - b) Roma tomato
  - c) Large sweet potato
  - d) Large avocado

Name: \_\_\_\_\_

Grade: \_\_\_\_\_

Date: \_\_\_\_\_

# Month 4 Pre/Post Quiz



**1** Bones show up \_\_\_\_\_ on ultrasound.

- a) black
- ☒ b) bright white
- c) invisible
- d) red

**2** By month 4, the pre-born person can:

- a) makes faces
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- c) kick their feet
- ☒ d) all of the above

**3** Month 4 is weeks \_ - \_ after conception.

- ☒ a) 11-14
- b) 6-10
- c) 12-15
- d) 15-18

**4** At this age and stage, the pre-born person's skin is thin and transparent.

- ☒ a) True
- b) False

**5** By the end of the month, the \_\_\_\_\_ are still closed, but light can be perceived.

- a) ears
- b) fingers
- ☒ c) eyes
- d) mouth

**6** The scalp pattern is forming, and fine \_\_\_\_\_ is beginning to grow.

- a) nails
- b) teeth
- ☒ c) hair
- d) feet

**7** By this age, the fetal bones are hardening.

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- b) False

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- c) Knee caps
- d) Eustachian tubes

**9** At the end of month 4, the pre-born person is about 10 inches long.

- a) True
- ☒ b) False

**10** How big is the baby at the end of month 4?

- a) Banana
- b) Roma tomato
- c) Large sweet potato
- ☒ d) Large avocado

# Fetal Development

## MONTH 5: 15-18 WEEKS FROM CONCEPTION



### Hiccups occur.

- The pre-born person can hiccup.
- Most moms begin to feel movement – which feels like a flutter – a sensation called “quickenings”. By the end of the month, the sensations increase with most moms feeling the hiccups, light kicks, and punches as the pre-born person becomes more active, rolling and flipping in the womb.
- A pre-born person can feel pain and sensations at this age.



18 weeks after conception  
Photo Credit: Science Photo Library

### Hearing begins.



20 weeks after conception  
Photo Credit: Science Photo Library

- The pre-born person begins to hear mom's heartbeat, stomach rumbling, and breathing.
- The pre-born has its own solid set of fingerprints and fingernails now.
- The pre-born person's skin is covered by a greasy, cheese-like coating called vernix. This helps protect the skin from chapping and hardening that can occur due to constant contact with the amniotic fluid.
- Lanugo is also present. Lanugo is a peach fuzz-like hair-covering over the skin that provides extra protection and warmth.

### Habits are formed.

A diagnostic ultrasound is typically performed at 20 weeks gestation in order to determine overall health and growth. This image shows a 3-D ultrasound of a pre-born person, named Olivia.

Habits are formed in womb as shown comparing this ultrasound with the actual photo of Olivia after birth. Olivia was sucking her hand in the womb in the same way that she continued to suck her hand after birth as shown by these photos.



Ultrasound and Photo of Olivia  
Photo Credit: Natalie Voithofer



At the end of month 5, the pre-born person is now about 7 inches long and weighs about 1 pound.



INCHES

## Month Five: Weeks 15-18

### Anticipatory Set:

- Introduce today's lesson with a brief review of the last lesson. Are there any questions that students wrote down last week? If not, lead with some general review questions for light discussion.
  - Do you recall the twins who were moving in the womb? Did you know that moms feel the movement and most actually miss the movement after the baby is born. When the baby gets bigger, mom can actually see her stomach jump up as they hiccup. Did anyone know this or have experience seeing this with a sibling?
  - What are you curious about at this next stage of pregnancy?

When the discussion is naturally stalled, it is a good time to have students complete the Month 5 pre-quiz if you are choosing to implement the quiz option. When they are finished, they can set them aside or turn them in. Follow the same quiz grading protocol as in the previous months.

### Slideshow Presentation

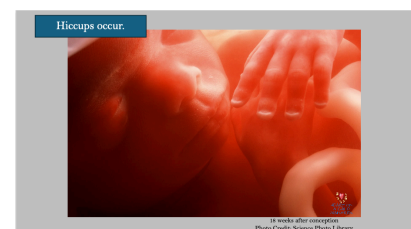
#### **Slide 1**

- During month 5, exciting things begin to happen – more movement, development and a key sensory ability kicks in.



#### **Slide 2**

- The pre-born person can hiccup.
- Most moms feel movement – which feels like a flutter – a sensation called “quickenings”. By the end of the month, the sensations increase with most moms feeling the hiccups, light kicks and punches as the pre-born person becomes more active - rolling and flipping in the womb.
- A pre-born person can feel full pain and sensations at this age, as well.





### Slide 3

This is an ultrasound video of a pre-born person with hiccups.



### Slide 4

- Notes: This is a 4D scan of a 16-17-week-old pre-born person who is very active in the womb (hold up 16 week old model). The pre-born person may move in response to sound, pressure on the mother's abdomen, or changes in the mother's position.



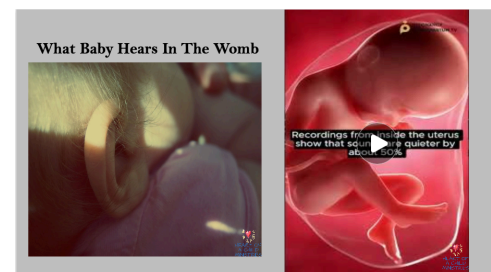
### Slide 5

- The pre-born person begins to hear mom's heartbeat, stomach rumbling.
- The pre-born has his or her own solid set of fingerprints and fingernails now.
- The pre-born person's skin is covered by a greasy, cheese-like coating called vernix. This helps protect the skin from chapping and hardening that can occur due to constant contact with the amniotic fluid.
- Lanugo is also present. Lanugo is a peach fuzz-like hair-covering over the skin that provides extra protection and warmth.



### Slide 6

- Notes: While the cochlea, middle ear, and outer ear all start forming around 7-weeks-gestation, these structures take many more weeks to mature and send signals to the brain. The earliest evidence of a fetus responding to sound is at 16 weeks. The pre-born person begins to hear mom's heartbeat, stomach rumbling, and breathing.



### Slide 7

- A diagnostic ultrasound is typically performed at this point in the pre-born person's development in order to determine overall health and growth. This image shows a 3-D ultrasound of a pre-born person named Olivia.
- Habits are formed in womb as shown comparing this ultrasound with the actual photo of Olivia after birth. Olivia was sucking her hand in the womb in the same way that she continued to suck her hand after birth as shown by these photos.
- At the end of month 5, the pre-born person is now about 7 inches long and weighs about 1 pound—the size of a zucchini.



### Slide 8

#### Discussion Questions:

- What is something that you noticed, either in the presentation or on the poster?
- What is something you wonder about human development?
- What do you think is most interesting about a pre-born person's ability to hear?
- What stood out to you the most about the development of the preborn person in Month 5?

#### Activity:

- Display the Month 5 poster in the classroom. Give students time to look over it and discuss it informally with each other.
- Give students an opportunity to interact with the fetal models. Show them the ones that go with this month. Remind them that the models are the exact weight and size of a human person at this age and stage.
- If you are in a faith-based school, spiritual reflection could be implemented at this point or later during the month.

#### Closure:

Students should complete the Month 5 post-quiz at this point if you are choosing to implement the quiz option. Additionally, if you are short on time and there are still questions, have students write down their questions to be referenced at the beginning of next month's lesson. Follow the same grading protocol as you did in the previous months.

## Month 5- Supplemental Spiritual Reflection:

There are two reflective exercises provided this month – one on spiritual hearing and one on healthy, holy habits. Please use one or both – whichever fits your students and time frame best.

### Option 1- Spiritual Hearing:

In Month 5, the pre-born person's ears open up and he or she can now hear. At first, the small person can only take in internal sounds- the gurgling of his mom's stomach, the beating of her heart, the swishing of blood through her veins. Gradually, the baby can begin to hear external sounds as well – the barking of a dog, the singing of her mom as she washes the dishes, the laughing of her dad, and the excitement of her siblings as they play.

In a similar way, God calls us to develop spiritual hearing, for He is always speaking to us – both internally and externally. His voice is in us -through the Holy Spirit, and all around us. He speaks to us through His creation, through others, through the Church and Scripture and through our external circumstances. We just need to develop the spiritual ears to listen and identify His voice.

*My sheep listen to my voice, I know them and they follow me. John 10:27*

There is a question that arises upon the reading of this Scripture...how do we know God's voice and how can we hear Him? Our world is so noisy - so much to do, so many classes, assignments, practices, and events. With all the business, it is hard to hear much else. Often the ability to hear the Lord's voice is developed through learning how to simply be silent. Like a pre-born person who is simply present to his or her own circumstance of growth in the quiet of the womb - we too, are called to make time to simply "be" in the quiet presence of our Lord and allow Him to grow us spiritually.

Jesus knew to do this. John 5:16 tells us, "Jesus often withdrew to the wilderness and prayed." Jesus was surrounded by the noise of thousands of people wanting something from him - healing, blessing, his preaching. When He wanted to hear the voice of His Father clearly, he went off into the desert, to the wilderness or to another quiet place. If Jesus, who is God as man, needed to do this, we most certainly need to do this too – to hear God's voice.

### Option 1 Discussion:

1. Let's have an honest conversation about this – do we have time to choose stillness and quiet amongst our school and activities schedules? Is it possible? Problem- solve ways with your students to find silence each week and each day amongst the business of our world. Where can their "desert" place be?

### Option 1: Activity:

Goto adoration with your students. Encourage them to sit in silence with no agenda and no planned prayers. Just “be” with the Lord for 30 minutes. Have them pay attention to the movements of their mind and heart during this time- Encourage them to write down at the end of the adoration time - what did they think about, where did their minds go, what experiences did they have? Was it difficult to be silent? Lead a discussion about this, then share with them

St. Ignatius of Loyola tells us that there are three possible “voices” that we can hear internally in silence– the voice of God, the voice of the Evil One, and the voice of ourselves. How do we identify whose voice is speaking?

- The Voice of God – “The Good Spirit” – brings peace, joy, clarity, and moves you toward selfless action and service
- The Voice of the Evil One – “The Bad Spirit” – leads to confusion, distress, fear and keeps us entangled in selfish desires or sin by rationalizing reasons to keep these desires or sin in place.
- The Voice of Self – often times focuses on self-desires and self-plans– thinking through our schedules, our conversations, our relationships, our activities.

Encourage them to pay attention to this next time they go to adoration or go to their “deserted place”. Revisit this experience again if possible.

### Option 2 - Reflection on Healthy Habits:

Habits of behavior begin to form in the womb – and habits continue to form throughout our lives. These can be both good habits and bad habits – habits that are healthy for the body, mind and soul and habits that are harmful.

Below is a list of healthy habits for teens from the book, “Holy Habits for Catholic Teens” by Catholic Sprouts.

- Keep God first through prayer, the Sacraments, spiritual reading, daily examination of conscience
- Develop compassion and charity for others through helping classmates, family members, neighbors, community
- Cultivate holy dating habits
- Take care of yourself through positive grooming: habits, eating healthy and keeping physically fit
- Learn to manage thoughts and emotions by turning frustrations into prayers
- Use media and technology appropriately and with limits- not as distractions from God and real relationships

- Stand up for the faith- defend your beliefs, say no to drugs/alcohol
- Find community that builds you up in your faith and in positive, healthy habit

Option 2 Discussion and Activity:

Have students write down if they have any of these habits in place. Discuss what these habits are and how they are positive for their lives. Have students choose one habit that is not in their lives from the list that they want to implement and write down a plan as to how they can implement it. Consider coming back to this next month and ask students how this is going for them. Consider revisiting this every month and encourage students to add more healthy habits into their lives each quarter.

Have students write down unhealthy habits that they have developed. Have them identify one habit that they want to change and write down a plan for how to change it. Revisit this next month as well and discuss how it is going. Consider having students add a new habit to get rid of each quarter.

# Month 5 Pre/Post Quiz



- 1** In month 5, the pre-born person can \_\_\_\_.  
a) hiccup  
b) kick and punch  
c) A & B  
d) None of the above
- 2** Quickening is:  
a) When the pre-born person hiccups  
b) The sensation that moms feel when the pre-born person starts to move  
c) When the pre-born person sucks their thumb  
d) none of the above
- 3** Month 5 is weeks \_ - \_ after conception.  
a) 11-14  
b) 6-10  
c) 12-15  
d) 15-18
- 4** The pre-born person begins to hear Mom's heartbeat, stomach rumblings, and breathing at this stage.  
a) True  
b) False
- 5** The pre-born person's skin is covered by a greasy, cheese-like coating called:  
a) Skin  
b) Fingerprints  
c) Vernix  
d) Lanugo
- 6** Vernix helps:  
a) the pre-born person grow  
b) protect the skin from chapping and hardening due to constant exposure to the amniotic fluid.  
c) hair grow  
d) nails grow
- 7** By this age, the pre-born person can feel pain and sensations.  
a) True  
b) False
- 8** \_\_\_\_ is a peach fuzz-like hair covering the skin that provides extra protection and warmth.  
a) Vernix  
b) Sebum  
c) Lanugo  
d) Hair
- 9** The pre-born person does not form habits until after birth.  
a) True  
b) False
- 10** How big is the baby at the end of month 5?  
a) About 7 inches  
b) About 4 inches  
c) About the size of a zucchini  
d) About ½ pound  
e) A & C  
f) B & D



# Month 5 Pre/Post Quiz

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☐ b) kick and punch  
☐ c) A & B  
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☐ c) About the size of a zucchini  
☐ d) About ½ pound  
☒ e) A & C  
☐ f) B & D

# Fetal Development

## MONTH 6: 19-22 WEEKS FROM CONCEPTION



### Sleep and wake cycles occur.



- The pre-born person has regular sleep and wake cycles.
- Eyebrows and hair are visible.
- Eyelids begin to part and regular, jerky movements of the eyes are noticed.

3D Ultrasound, 19 weeks after conception  
Photo Credit: Pregnancy Chat

### Music can cause reactions.

- The pre-born person can respond to both internal and external sound – like loud music – indicated by his or her movements or increase in pulse as seen on an ultrasound.
- The pre-born person can reach for objects now, like the umbilical cord or his or her ears.
- The pre-born person is gaining more body fat which helps the skin be less wrinkled and more full.



3D Ultrasound, 24 weeks after conception  
Photo Credit: Science Photo Library

### Baby can survive if born.

- The pre-born person's lungs start to make **surfactant**, a substance that supports healthy breathing. It allows the air sacs in the lungs to inflate and keeps the lungs from collapsing and sticking together when they deflate.
- If born prematurely, the pre-born person may survive with intensive medical care.



Born early, 23 weeks after conception  
Photo Credit: Stanford Medical Children's Hospital

At the end of month 6, the pre-born person is now about 12 inches long and weighs 2 pounds.

INCHES

## Month Six: Weeks 19-22

### Anticipatory Set:

- Introduce today's lesson with a brief review of the last lesson. Are there any questions that students wrote down last week? If not, lead with some general review questions for light discussion.
  - Do you recall different habits that can form in the womb? (thumb sucking)
  - Did you know that babies not only can suck their thumbs, but because they are so flexible they can also suck their toes. We will soon learn why they are so flexible.
  - What are you curious about at this stage of pregnancy?

When the discussion is naturally stalled, it is an appropriate time to have students complete the Month 6 pre-quiz if you have chosen to implement this option. When they are finished, they can set them aside or turn them in. Follow the same quiz grading protocol as in the previous months.

### Slideshow Presentation

#### Slide 1

- In this month of pregnancy, we will discover more about what the pre-born person can hear and respond to with movement and reaction.



#### Slide 2

- This is a 3D ultrasound of a pre-born person at 19 weeks post conception.
- At this age and stage, the pre-born person has regular sleep and wake cycles.
- Eyebrows and hair are visible.
- Eyelids begin to part and regular, jerky movements of the eyes are noticed.



#### Slide 3

- This video shows the pre-born person's pupils moving inside the womb. Watch closely.



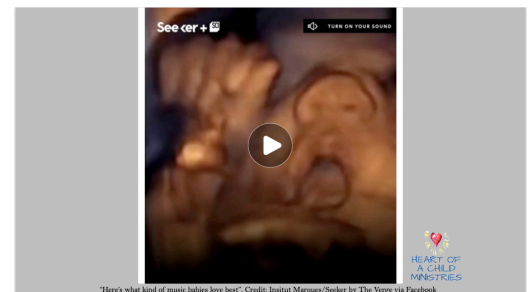
#### Slide 4

- This is another 3D ultrasound of a pre-born person.
- The pre-born person can reach for objects now, like the umbilical cord or his or her ears.
- The pre-born person is gaining more body fat which helps the skin look less wrinkled and fuller.
- The pre-born person can now respond to both internal and external sound – like loud music – indicated by his or her movements or by an increase in pulse as seen on ultrasound.



#### Slide 5

- This is a short video of the pre-born person reacting and responding to music.



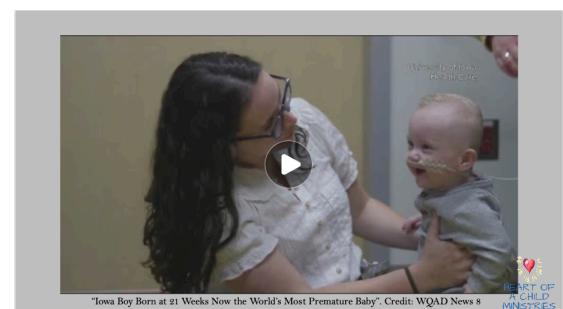
#### Slide 6

- This is a photo of a person- born early at just 23 weeks post conception (hold up the 22 week old fetal model).
- At this age and stage, the pre-born person's lungs start to make surfactant, a substance that supports healthy breathing and allows the air sacs in the lungs to inflate and keeps the lungs from collapsing and sticking together when they deflate.
- If born prematurely, the pre-born person may survive with intensive medical care.
- At the end of month 6, the pre-born person is about 12 inches long and weighs about 2 pounds – about the size of a butternut squash.



#### Slide 7

- Following is a 1-minute video of a boy from Iowa who was born at just 21-weeks and survived. He is the world's most premature baby who lived.



**Slide 8****Discussion Questions:**

- What is something that you noticed, either in the presentation or on the poster?
- What is something you wonder about human development?
- What do you think about the medical profession's ability to help premature babies to survive? Was anyone here born prematurely, or does anyone have a story to share about that?
- What stood out to you the most about the development of the preborn person in Month 6?

**Activity:**

- Display the Month 6 poster in the classroom. Give students time to look over it and discuss it informally with each other.
- Give students an opportunity to interact with the fetal models. Show them the ones that go with this month. Remind them that the models are the exact weight and size of a human person at this age and stage.
- If you are in a faith-based school, spiritual reflection could be implemented at this point or later during the month.

**Closure:**

Students should complete the Month 6 post-quiz at this point if you have chosen this option. Additionally, if you are short on time and there are still questions, have students write down their questions to be referenced at the beginning of next month's lesson. Follow the same quiz grading protocol as in the previous months.



## Month 6 - Supplemental Spiritual Reflection:

In month 6, the pre-born person can hear external sounds and respond to music.

Whether we are inside or outside of the womb, music can influence us both positively and negatively. For example, scientists know that classical music slows down the heart rate and has positive effects on the human being – both in the womb and outside of the womb. Sacred music can also lead our hearts to the Lord in worship and praise and has a powerful way of touching our souls.

*The Lord is my strength and my shield; my heart trusts in him, and he helps me.  
My heart leaps for joy, and with my song I praise him. (Psalm 28:7)*

This month we invite you to choose one of the songs below for kids to reflect on or choose one each week to start your class off with and have them identify how the song moved them.

Some songs that we recommend are:

- “Goodness of God” by Bethel Music
- “Who You Say I Am” by Hillsong Worship
- “Because He Lives” by Matt Maher
- “Good, Good Father” by Chris Tomlin

### Month 6 Optional Reflection Activity:

Teacher’s words: *I invite you to sit back, close your eyes and listen to the song and the lyrics.*

### **Questions for the students to answer afterwards:**

1. What lyrics or words stuck out most to you?
  
2. What does this say to you about Jesus or God?
  
3. What does this say to you about yourself?
  
4. What was the overall meaning of the song and how can you integrate the message of this song more fully into your life?



# Month 6 Pre/Post Quiz



- 1** The pre-born person's lungs begin to make \_\_\_\_\_, a substance that supports healthy breathing and prevents the lungs from sticking together.
  - a) Mucous
  - b) Surfactant
  - c) Mesoderm
  - d) Air
- 2** If born prematurely, the pre-born person may survive with intensive medical care.
  - a) True
  - b) False
- 3** At this age and stage, the pre-born person's \_\_\_\_ & hair are beginning to be visible.
  - a) Nose
  - b) Toes
  - c) Eyebrows
  - d) Fingers
- 4** The pre-born person may begin to reach for objects, like the ears or the \_\_\_\_\_.
  - a) Uterus
  - b) Amniotic sac
  - c) Umbilical cord
  - d) Placenta
- 5** The pre-born person can now respond to internal and external \_\_\_\_\_.
  - a) Smell
  - b) Color
  - c) Sound
  - d) None of the above
- 6** Examples of common responses to loud, sudden sounds are:
  - a) Change in movements
  - b) Increased pulse rate
  - c) Increase in movement
  - d) all of the above
- 7** By 6 months after conception, the pre-born person is gaining more body fat.
  - a) True
  - b) False
- 8** The eyes, ears, and mouth are forming this month.
  - a) True
  - b) False
- 9** Month 6 is weeks:
  - a) 7-10 weeks after conception
  - b) 25-28 weeks after conception
  - c) 15-18 weeks after conception
  - d) 19-22 weeks after conception
- 10** About how much does the pre-born person weigh at the end of month 6?
  - a) 2 pounds
  - b) 1 pound
  - c) 3 ounces
  - d) 16 ounces

# Month 6 Pre/Post Quiz



- 1** The pre-born person's lungs begin to make \_\_\_\_\_, a substance that supports healthy breathing and prevents the lungs from sticking together.

  - a) Mucous
  - ☒ b) Surfactant
  - c) Mesoderm
  - d) Air
- 2** If born prematurely, the pre-born person may survive with intensive medical care.

  - ☒ a) True
  - b) False
- 3** At this age and stage, the pre-born person's \_\_\_\_ & hair are beginning to be visible.

  - a) Nose
  - b) Toes
  - ☒ c) Eyebrows
  - d) Fingers
- 4** The pre-born person may begin to reach for objects, like the ears or the \_\_\_\_\_.

  - a) Uterus
  - b) Amniotic sac
  - ☒ c) Umbilical cord
  - d) Placenta
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  - a) Change in movements
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  - a) True
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- 9** Month 6 is weeks:

  - a) 7-10 weeks after conception
  - b) 25-28 weeks after conception
  - c) 15-18 weeks after conception
  - ☒ d) 19-22 weeks after conception
- 10** About how much does the pre-born person weigh at the end of month 6?

  - ☒ a) 2 pounds
  - b) 1 pound
  - c) 3 ounces
  - d) 16 ounces

# Fetal Development

## MONTH 7: 23-26 WEEKS FROM CONCEPTION



### Blinking occurs.

- The pre-born person can blink and has eye lashes.
- The pre-born person has melanin, the substance that gives skin and eyes their color.
- The pre-born person can respond to stimuli – including sound, pain and light – turning his or her head toward or away from bright light, as seen through ultrasound.

3D Ultrasound, 26 weeks after conception  
Photo Credit: Pregnancy Chat

### Dreaming is possible.

- The pre-born person is experiencing Rapid Eye Movement (REM) during sleep cycles. REM occurs during our deepest periods of sleep, which is when we dream. Because of this, we presume that the pre-born person is dreaming in some capacity.
- The pre-born person is gaining weight quickly, adding body fat that will help with warmth and protection after birth.



26 weeks after conception  
Photo Credit: Science Photo Library

### Legs kick powerfully.

- Kicks and jabs feel like strong pokes now to Mom because the pre-born person is getting bigger and filling up the amniotic sac.
- The pre-born person can control his or her own body heat.
- The pre-born person may begin turning his or her head down in the uterus to get ready for birth.



28 weeks after conception  
Photo Credit: Science Photo Library

At the end of month 7, the pre-born person is about 14 inches long and weighs about 3 pounds.



## Month Seven: Weeks 23-26

### Anticipatory Set:

- Introduce today's lesson with a brief review of the last lesson. Are there any questions that students wrote down last week? If not, lead with some general review questions for light discussion.
  - Last month we talked about babies being born prematurely. Was anyone here born prematurely or know someone who was and has a story to share? (ask this question if you did not ask it the previous month – it makes for good discussion)
  - Did you know that the medical profession can not only help babies born prematurely, but they can actually perform surgeries on babies in the womb. They can help correct certain conditions in the womb, like spina bifida (where the spine is growing on the outside of the pre-born person), and give the person a chance at a higher quality of life.
  - What are you curious about at this stage of pregnancy?

When the discussion is naturally stalled, it is a good time to have students complete the Month 7 pre-quiz if you have chosen the quiz option. When they are finished, please proceed with the same quiz protocol as in the previous months.

### Slideshow Presentation

#### Slide 1

- In month 7, the pre-born person and all of his or her organs continue to develop with new incredible capacities that we will learn about here.



#### Slide 2

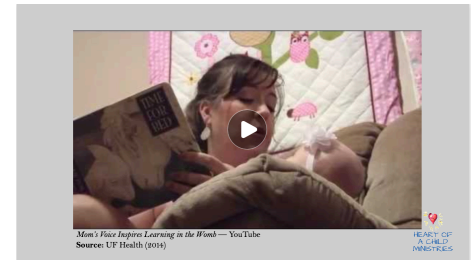
- This is a 3D ultrasound image of a pre-born person, 26 weeks after conception (hold up 26-week old model).
- The pre-born person can blink and has eye lashes.
- The pre-born person has melanin, the substance that gives skin and eyes their color.
- The pre-born person can respond to stimuli – including sound, pain, and light – turning his or her head toward or away from bright light, which has been seen through ultrasound.





### Slide 3

- This is a 2-minute video explaining the importance of the mother's voice to a pre-born person in their learning and memorization. This video shows how they respond to the sound of the mother's voice and to reading.



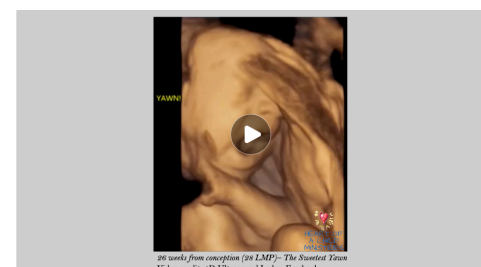
### Slide 4

- This is an image of a 26-week-old preborn person in the womb.
- The pre-born person at this age and stage is gaining weight quickly, adding body fat that will help with warmth and protection after birth.
- The pre-born person at about 28-weeks-old experiences REM or Rapid Eye Movement during sleep cycles. REM occurs during our deepest periods of sleep. Our pupils go back and forth quickly, while our eyes are closed, integrating both the right sides and left sides of our brains and our experiences. During this rapid eye movement, we dream. Because of this, scientists presume that the pre-born person is dreaming in some capacity as well. What do you think a pre-born person would dream about (their dreams would only involve their personal experiences)?



### Slide 5

- Babies have regular sleep and wake cycles at this age and stage. This is a short video clip of a pre-born person yawning or opening his or her mouth wide in the womb. (26 weeks from conception).



### Slide 6

- Kicks and jabs feel like strong pokes now to Mom because the pre-born person is getting bigger and filling up the amniotic sac.
  - The pre-born person can control his or her own body heat now.
  - The pre-born person may begin turning his or her head down in the uterus to get ready for birth.
- At the end of month 7, the pre-born person is about 14 inches long and weighs about 3 pounds – about the size of a pineapple.



### Slide 7

#### Discussion Questions:

- What is something that you noticed, either in the presentation or on the poster?
- What is something you wonder about human development?
- What do you think about the effect of reading and sound on the human person in the womb?
- What stood out to you the most about the development of the preborn person in Month 7?

#### Activity:

- Display the Month 7 poster in the classroom. Give students time to look over it and discuss it informally with each other.
- Give students an opportunity to interact with the fetal models. Show them the ones that go with this month. Remind them that the models are the exact weight and size of a human person at this age and stage.
- If you are a faith-based school, you can implement the spiritual reflection at this time or wait until a later date during the month.

#### Closure:

Students should complete the Month 7 post-quiz at this point if you have chosen this option. Additionally, if you are short on time and there are still questions, have students write down their questions to be referenced at the beginning of next month's lesson. Continue with the same quiz grading protocol as in the previous months.



## **Month 7 - Supplemental Spiritual Reflection:**

The pre-born person at around 26 weeks or 7 months post conception begins to have REM sleep – the deepest stage of sleep when dreams occur. The pre-born person has regular sleep and wake cycles.

In the same way, Jesus invites us to rest - to have times when we are active, and times when we pause.

In Genesis 2:2, after God created the world, he rested. “By the seventh day God had finished the work he had been doing; so, on the seventh day he rested from all work.”

Catholic author, Matthew Kelly, recently wrote a book about the importance of having space in our lives to rest, titled, “Slowing Down to the Speed of Joy.” To find true joy, Kelly states that we must implement room in our lives for rest and leisure (doing the things that we enjoy).

### **Month 7 Optional Reflection Activity:**

Sometimes it is hard to find time for rest in our culture that is so focused on production. We are busy with school, homework, sports, and activities. Even the seventh day of rest that God instituted for us, is getting snuffed out by sporting events, activities and rushing around from here to there. Many families no longer attend Church or take time to enjoy one another due to this increased pace in our lives. What are your thoughts on this? How does this affect you? Do we, as a society, need to make more room on Sunday to rest? How can we do that? (Discuss this as a class)

Personal Reflection: Invite students to answer the questions on the following page on a separate piece of paper. You can discuss these in class or simply have them write them down and reflect on these personally.

- Do you make time in your own life for rest? How do you do this? If you do not, how can you do this? Think of a time where you can intentionally choose to pause each day or in your week to rest and do something you enjoy.
- What brings you joy (mention something here that is non-screen related) that you enjoy doing – being in nature, spending time with friends, playing sports, listening to music, etc. How can you make more time for this in your life?
- Jesus invites us to rest specifically in Him. In Matthew 11:28, He states, “Come to me, all you who are weary and burdened, and I will give you rest.” This means that Jesus desires us to share our hearts with Him. He desires us to share our burdens and our

frustrations with Him. When we do this, we feel lighter. Write down your frustrations or burdens here.

- Ask Jesus to help you with these in a prayer.

*Example: Jesus, I feel so frustrated that I have so much homework all the time. Please give me the grace to pause, to go outside and go for a run, before I begin my homework because I enjoy doing that and it helps me. Help me to remember that you are with me every second and that I am not alone. Thank you, Jesus. Amen.*

# Month 7 Pre/Post Quiz



- 1** In month 7, the pre-born person begins to \_\_\_\_.
  - a) hiccup
  - b) blink
  - c) kick
  - d) punch
- 2** At this point, the pre-born person has \_\_\_\_, which gives skin and eyes color.
  - a) Melanin
  - b) Calcium
  - c) Melatonin
  - d) Potassium
- 3** Month 7 is weeks \_\_\_\_ - \_\_\_\_ after conception.
  - a) 11-14
  - b) 20-24
  - c) 12-15
  - d) 23-26
- 4** The pre-born person can respond to stimuli – including sound, pain and light – turning his or her head toward or away from bright light, as seen through ultrasound.
  - a) True
  - b) False
- 5** The pre-born person is \_\_\_\_ quickly, which will help with warmth and protection after birth.
  - a) Getting longer
  - b) Gaining weight
  - c) Moving more
  - d) Sleeping more
- 6** The pre-born person is experiencing REM sleep at this age and stage. What does REM stand for?
  - a) Real Ear Measurement
  - b) Rapid Eye Movement
  - c) Roentgen Equivalent Man
  - d) Really Exhausted Muscles
- 7** The pre-born person is presumed to be \_\_\_\_ during REM sleep.
  - a) Kicking
  - b) Snoring
  - c) Dreaming
  - d) Punching
- 8** By this age, the pre-born person may begin to move to the head down position to prepare for birth.
  - a) True
  - b) False
- 9** The pre-born person cannot control their own body temperature at this age and stage.
  - a) True
  - b) False
- 10** Approximately how big is the pre-born person at the end of Month 7?
  - a) About the size of a papaya
  - b) About the size of a dragonfruit
  - c) About the size of a pineapple
  - d) About the size of a mango

# Month 7 Pre/Post Quiz



- 1 In month 7, the pre-born person begins to \_\_\_\_.  
a) hiccup  
☒ b) blink  
c) kick  
d) punch
- 2 At this point, the pre-born person has \_\_\_\_, which gives skin and eyes color.  
☒ a) Melanin  
b) Calcium  
c) Melatonin  
d) Potassium
- 3 Month 7 is weeks \_\_\_\_ - \_\_\_\_ after conception.  
a) 11-14  
b) 20-24  
c) 12-15  
☒ d) 23-26
- 4 The pre-born person can respond to stimuli – including sound, pain and light – turning his or her head toward or away from bright light, as seen through ultrasound.  
☒ a) True  
b) False
- 5 The pre-born person is \_\_\_\_ quickly, which will help with warmth and protection after birth.  
a) Getting longer  
☒ b) Gaining weight  
c) Moving more  
d) Sleeping more
- 6 The pre-born person is experiencing REM sleep at this age and stage. What does REM stand for?  
a) Real Ear Measurement  
☒ b) Rapid Eye Movement  
c) Roentgen Equivalent Man  
d) Really Exhausted Muscles
- 7 The pre-born person is presumed to be \_\_\_\_ during REM sleep.  
a) Kicking  
b) Snoring  
☒ c) Dreaming  
d) Punching
- 8 By this age, the pre-born person may begin to move to the head down position to prepare for birth.  
☒ a) True  
b) False
- 9 The pre-born person cannot control their own body temperature at this age and stage.  
a) True  
☒ b) False
- 10 Approximately how big is the pre-born person at the end of Month 7?  
a) About the size of a papaya  
b) About the size of a dragonfruit  
☒ c) About the size of a pineapple  
d) About the size of a mango

# Fetal Development

## MONTH 8: 27-30 WEEKS FROM CONCEPTION



### Eyes can open and shut.

- Eyes can open wide.
- Hearing is fully developed with the pre-born person hearing a wide range of sounds and frequencies.
- Brain is growing rapidly, can process more information and respond directly to more stimuli – like light.



3D Ultrasound, 28 weeks after conception  
Photo Credit: American Institute of Ultrasound in Medicine

### Fingernails and toenails are fully grown.

At the end of month 8, the pre-born person is now about 17-18 inches long and weighs as much as 5 pounds. Tucked tightly in the womb, not stretched out, the baby would be the size of a large cantaloupe.

- Fingernails and toenails have grown to the end of the fingers and toes.
- The pre-born person can grasp, stretch and kick strongly.



Ultrasound, 30 weeks after conception  
Photo Credit: American Institute of Ultrasound in Medicine

### Smiles and frowns occur.

- Pre-born person in the womb can smile, grimace, and make faces like this one.
- Pre-born person may have good head of hair.
- Red blood cells form in the bone marrow.
- Skin is thick and not translucent anymore.
- Other than the brain and lungs – which are still maturing, organs are well formed and ready for birth.



3D Ultrasound, 28 weeks after conception  
Photo Credit: Science Photo Library



INCHES



## Month Eight: Weeks 27-30

### Anticipatory Set:

- Introduce today's lesson with a brief review of the last lesson. Are there any questions that students wrote down last week? If not, lead with some general review questions for light discussion.
  - Who remembers what REM sleep is? What do you think the pre-born person would dream about? They would not have language – so it would involve solely their experiences in the womb.
  - What are you curious about at this stage of pregnancy?

When the discussion is naturally stalled, it is a suitable time to have students complete the Month 8 pre-quiz if you have chosen this option. When they are finished, follow the same quiz protocol that you have implemented in the previous months.

### Slideshow Presentation

#### Slide 1

- We are now in the third trimester of pregnancy – the final stage where great growth and weight gain occur.
- During month 8, the pre-born person continues to fatten up, and all organs are fully formed except for the brain and lungs. The lungs are the last organ to fully develop. This is why when a baby is born a month premature, sometimes they are put on a ventilator- because their lungs are not fully developed. Does anyone have experience with this?



#### Slide 2

- At this age and stage, the hearing is fully developed with the pre-born person hearing a wide range of sounds and frequencies.
- The brain is growing rapidly, can process more information and respond directly to more stimuli – including light. Bright light can penetrate the womb. Although we do not know for sure, it appears that this pre-born person may be



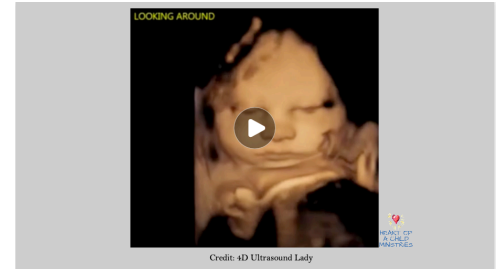


responding to bright light through this 3D ultrasound image.

- The pre-born person's eyes can open and shut at this age and stage as well.

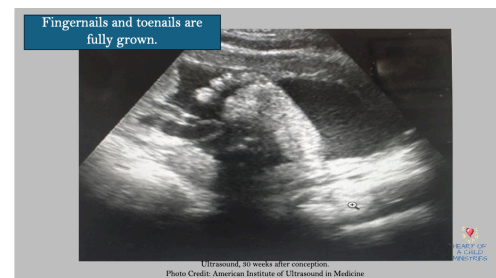
### Slide 3

- This is a short video clip of a pre-born person opening their eyes and looking around in the womb.



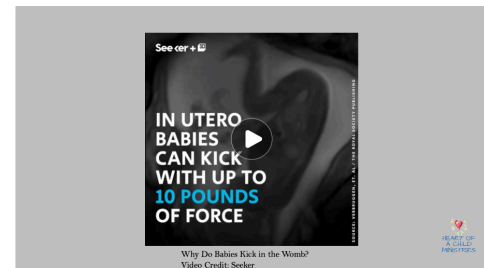
### Slide 4

- Fingernails and toenails have grown to the end of the fingers and toes now.
- Notice how clear the toes and foot of this 30-week-old appear on the ultrasound.
- The pre-born person can grasp, stretch, and kick strongly now.



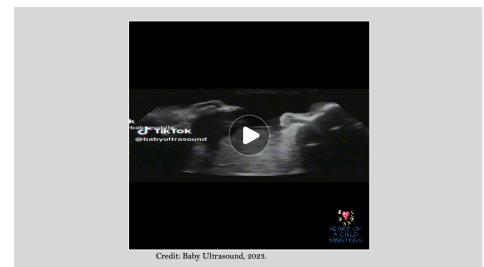
### Slide 5

- Teachers: We invite you to preview this video first – it shows great footage of babies kicking and moving, but it also briefly shows a woman's bare stomach. You know your students best - please decide if you would like to share this with your students or not.



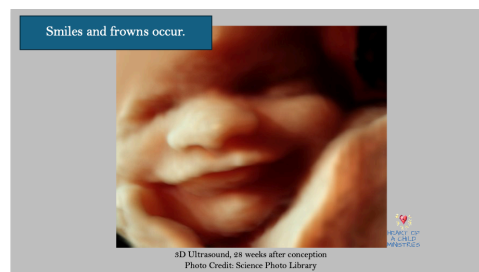
### Slide 6

- This is a short 1-minute (on a loop) video displaying a pre-born person's foot and toes moving at 32 weeks. This would be a solid alternative to the previous video.



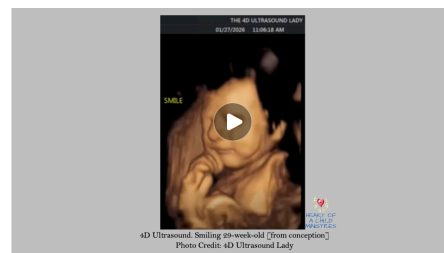
### Slide 7

- The pre-born person in the womb can smile, grimace, and make faces like this one.
- The pre-born person may have a good head of hair by now.
- The red blood cells form in the bone marrow.
- The skin is thick and not translucent anymore.
- Other than the brain and lungs – which are still maturing, the organs are well formed and ready for birth.
- At the end of month 8, the pre-born person is now about 17-18 inches long and weighs as much as 5 pounds. Tucked tightly in the womb, not stretched out, the baby would be the size of a cantaloupe.



### Slide 8

- This is a short clip of a 4D ultrasound of a pre-born person smiling slightly in the womb.



### Slide 9

#### Discussion Questions:

- What is something that you noticed, either in the presentation or on the poster?
- What is something you wonder about human development?
- What do you think about a pre-born person's capacity to react to light, sound, and taste?
- What stood out to you the most about the development of the preborn person in Month 8?

#### Activity:

- Display the Month 8 poster in the classroom. Give students time to look over it and discuss it informally with each other.
- If you are a faith-based school, you can have students complete the spiritual reflection at this time or later in the month.

#### Closure:

Students should complete the Month 8 post-quiz at this point if you have chosen the quiz option. Additionally, if you are short on time and there are still questions, have students write down their questions to be referenced at the beginning of next month's lesson. Follow the same quiz grading protocol as in the previous months.

## **Month 8- Supplemental Spiritual Reflection:**

In month 8, the pre-born person can open his or her eyes and see. In Matthew 5:8, Scripture tells us, “Blessed are the pure in heart, for they shall see God.”

Young children are very pure hearted. They have not been jaded by the world too much yet. Life is new and fresh to them, and their hearts are open to seeing and experiencing this newness with great joy. Have you ever watched a young child outside playing? They notice a small ant, follow and touch it. They jump big in the puddles and splash. They feel the grass tickle at their feet and laugh. They smell and touch a flower. They smile at a stranger in the grocery store. Because they are purehearted, they see God’s gifts around them and freely delight in them.

In Matthew 18:3, Scripture encourages us, “Truly I tell you, unless you change and become like little children, you will never enter into the Kingdom of Heaven.” The change that God is inviting us toward is to turn around and see the world with new eyes again – like a little child. He desires us to be fully in the present moment, behold the gifts of God all around us, take them into our souls, and delight in them.

### **Month 8 Optional Reflection Activity - Option 1:**

It can be tricky to pause and take in the things of God when we are on a tight schedule – getting to school on time and going from class to class, coming home and doing homework. Yet, I invite you to think about your typical day. How can you pause, see, and take in God’s gifts around you more fully? For example, do you pass by a beautiful flower bed running to the car each morning without ever noticing? Tomorrow, choose to stoop down, touch and smell the flower like a little child.

Are there classmates that are around you each day who need a door opened for them as they go to their next class or is there a person in your school who appears downcast and needs a word of encouragement? Each person around you is a gift from God who can be noticed more fully, seen and loved. Write down ways that you can choose to see those around you more fully, notice the gifts of God and respond in love.

### **Month 8 Optional Reflection Activity - Option 2:**

In the movie Ground Hog Day, the actor Bill Murray plays Phil, the news reporter who covers Ground Hog Day and announces whether the ground hog sees his shadow or not. During the movie, he discovers that he is forever stuck in time- living out the same day – Ground Hog Day- over and over again.

At first, he panicks – realizing that he is stuck in time and can't get out. Next, he is bored and frustrated – living out the same monotonous day, over and over again. Finally, he realizes that he can stay angry about his circumstance or embrace it.

He chooses to embrace it- living out his best life in this one day. He decides to notice the things of God all around him, the people who need a door opened, need help, or need a hug. He chooses to re-live this day to the highest degree of love possible.

**Question:** If you could re-live a regular, monotonous school day – what are some things that you would “redo” like Bill Murray, in order to truly see the people around you more fully, notice the gifts of God, and live out your day to the highest degree of love.

# Month 8 Pre/Post Quiz



- 1** By 8 months after conception, the pre-born person can \_\_\_\_, \_\_\_\_, & \_\_\_\_ strongly.
  - a) grasp, stretch, & kick
  - b) hiccup, itch, & sneeze
  - c) sneeze, hiccup, and itch
  - d) stretch, itch, and sneeze
- 2** At this point, the pre-born person's \_\_\_\_ & \_\_\_\_ have grown to the end of their fingers and toes.
  - a) Skin & bones
  - b) Bones & teeth
  - c) Fingernails & toenails
  - d) Muscles & tendons
- 3** Month 8 is weeks \_\_\_\_ - \_\_\_\_ after conception.
  - a) 20-24
  - b) 25-28
  - c) 37-40
  - d) 27-30
- 4** The pre-born person's hearing is fully developed, with the ability to hear a wide range of sounds and frequencies.
  - a) True
  - b) False
- 5** The pre-born person may have \_\_\_\_ on top of their head by this point.
  - a) Hair
  - b) Fingers
  - c) Toes
  - d) Elbows
- 6** \_\_\_\_ blood cells form in the bone marrow at this age and stage.
  - a) Blue
  - b) Yellow
  - c) White
  - d) Red
- 7** The skin is thick and no longer translucent.
  - a) True
  - b) False
- 8** Other than the brain and lungs, which are still \_\_\_\_, organs are well formed and ready for birth.
  - a) absent
  - b) maturing
  - c) fully-grown
  - d) invisible
- 9** The pre-born person cannot smile, grimace, or make faces in the womb.
  - a) True
  - b) False
- 10** Approximately how big is the pre-born person at the end of month 8?
  - a) The size of a peach
  - b) The size of a cucumber
  - c) The size of a cantaloupe
  - d) The size of a grape

# Month 8 Pre/Post Quiz



**Knights of  
Columbus®**  
St. Stephen the Martyr  
Omaha, NE

- 1 By 8 months after conception, the pre-born person can \_\_\_\_, \_\_\_\_, & \_\_\_\_ strongly.  
☒ a) grasp, stretch, & kick  
☐ b) hiccup, itch, & sneeze  
☐ c) sneeze, hiccup, and itch  
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- 2 At this point, the pre-born person's \_\_\_\_ & \_\_\_\_ have grown to the end of their fingers and toes.  
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- 10 Approximately how big is the pre-born person at the end of month 8?  
☐ a) The size of a peach  
☐ b) The size of a cucumber  
☒ c) The size of a cantaloupe  
☐ d) The size of a grape



# Fetal Development

MONTHS 9-10: 31-38 WEEKS FROM CONCEPTION



## Babies have more bones.

- **Fetal bones are hardening**, with the exception of the cranial bones around the brain, which allows for greater flexibility during birth.

- **At this stage and at birth, babies have 300 bones, while adults have 206 bones.** This allows flexibility at birth and the ability to continue to grow and develop after birth.

- **The pre-born person's pupils can change size in response to light.**

- **The pre-born person is putting on about ½ pound per week in the final stage of pregnancy.**



3D Ultrasound, 35 weeks after conception  
Photo Credit: Pregnancy Chat

## Pre-born person can taste.

- **Taste buds develop early** – with some being present by 8 weeks and functional by 14-15 weeks. Because the amniotic fluid takes on flavors from the mother's diet, pre-born persons can experience a range of tastes and can even show preferences for flavors they've been exposed to in the womb.

3D Ultrasound, 36 weeks after conception  
Photo Credit: Pregnancy Chat



## Most babies are born 37-42 weeks.

- **A pre-born person is considered full term 37-weeks after conception.**

- **Most babies are born between 38-42 weeks old** – potentially bringing pregnancy into the 10th month.

- **Because a baby can hear in the womb**, it often seems as if the parents' voices are recognizable and soothing to the baby after she or he is born.

*When born, the average person is 20 inches long and 7 ½ pounds.*

## Months Nine-Ten: Weeks 31-38

### Anticipatory Set:

- Introduce today's lesson with a brief review of the last lesson. Are there any questions that students wrote down last week? If not, lead with some general review questions for light discussion.
  - Do you recall - can a pre-born person react to light and open his or her eyes?
  - Does anyone remember what the last organ to develop is in the human person?
  - What are you curious about at this stage of pregnancy?

When the discussion is naturally stalled, it is a good time to have students complete the Month 9 pre-quiz if you have chosen to implement the quiz option. When they are finished, they can set them aside or turn them in –following the same quiz protocol as in the previous months.

### Slideshow Presentation

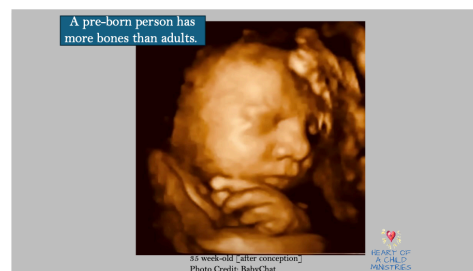
#### Slide 1

- This month, we will discuss the final month of growth and the process of bone development in pre-born person.



#### Slide 2

- 35-weeks-after conception, the fetal bones are hardening - except for the cranial bones around the brain - to allow for greater flexibility when the pre-born person is born.
- Pre-born persons at this stage and newborn babies have 300 bones, while adults have 206 bones. Why do you think this is- any ideas? (Answer: More bones allow them to be more flexible during birth and to continue to grow and develop afterwards. For example, babies do not grow kneecaps until they are two years old – allowing them to crawl with ease. All bones eventually fuse together as the baby grows and eventually totals 206).
- The pre-born person's pupils can change size in response to light.



- The pre-born person is putting on about  $\frac{1}{2}$  -  $\frac{3}{4}$  pound per week in the final stage of pregnancy.

### Slide 3

- 36-weeks-after conception, the pre-born person can taste. Taste buds develop early – with some being present by 8-weeks old and functional by 14-15 weeks. Because the amniotic fluid can take on flavors from the mother's diet, pre-born persons can experience a range of tastes and can even show preferences for flavors they have been exposed to in the womb.



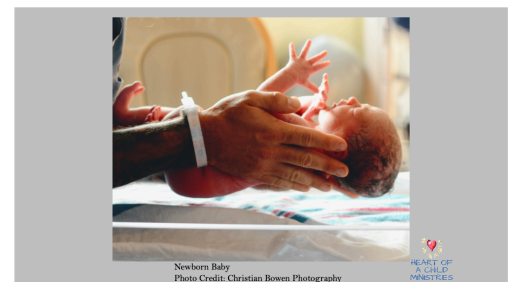
### Slide 4

- This is a 1:20 video of a news clip from the Today Show showing a pre-born tasting and reacting in the womb.



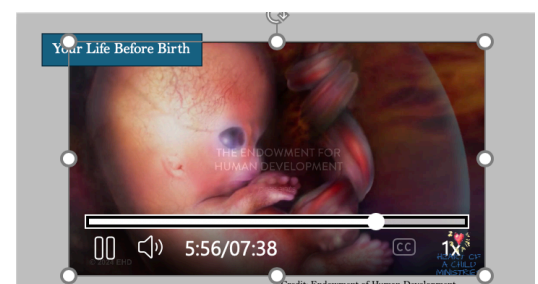
### Slide 5

- A pre-born person is considered full term 37-weeks after conception.
- Most babies are born between 38-42 weeks old – bringing pregnancy into the 10th month for some.
- Because a baby can hear in the womb, it often seems as if the parents' voices are recognizable and soothing to the baby after she or he is born.
- When born, the average person is 14 inches long and 7  $\frac{1}{2}$  pounds.



### Slide 6

This is a 7  $\frac{1}{2}$  minute video that captures the full development of the human being in the womb and is a great review of what was learned.



## Slide 7

### Discussion Questions:

- What is something that you noticed, either in the presentation or on the poster?
- What is something you wonder about human development?
- Who remembers what vegetable the baby seemed to like and not like? What is your favorite vegetable? What is your least favorite vegetable? Take a class survey.
- Do any of you know if your mom had specific cravings when pregnant with you? Although we do not know exactly why cravings occur, it is interesting to ponder that perhaps that it is because this is a food that the baby enjoys.
- What stood out to you the most about the development of the preborn person in Month 9?

### Activity:

- Display the Month 9 poster in the classroom. Give students time to look over it and discuss it informally with each other. Look over all nine posters hanging in the room together and discuss.
- Give students an opportunity to interact with the fetal models.
- If you are a faith-based school, you can have students complete the month 9 spiritual reflection at this time or at a later date during the month.

### Closure:

Students should complete the Month 9 post-quiz at this point if you have chosen the quiz option. Follow the same quiz grading protocol as in the previous months.

### Final Discussion:

Invite students to reflect on - either through class discussion or by writing it down:

- How was studying fetal development helpful to you?
- Out of everything that you learned in our 9 months of study, what fetal development fact stands out the most to you?
- What does this tell you about the human person and (if you are a faith-based school) God's creative design?
- Do you feel that the study of fetal development gives you a deeper appreciation for yourself? for one another? and (if you are a faith-based school) for God? Why or why not?

**Final Evaluation for Teachers:**

Thank you for being a part of teaching and learning about The Journey Within! We would love to hear from you and learn about your experience with the program. Please fill out the short evaluation form provided at the end of this curriculum book. Scan and email it to [info@heartofachildministries.org](mailto:info@heartofachildministries.org) or mail it to: Heart of a Child Ministries 10506 Burt Circle Omaha, NE 68114. Thank you!

## Month 9 Supplemental Spiritual Reflection:

Month 9 is the month that we are born. We enter into the world outside of our mothers' wombs, and we are here until death.

Birth is discussed in Scripture. We are told by Jesus in John 3 that we must be born again in the Spirit. Invite students to read the following passage (John 3: 3-16) and circle the words that they feel speak about what it means to be "born again in the Spirit". Discuss what they circled and explore the meaning together using this Scripture and Church teaching (reference to the Catholic Catechism is provided at the below this Scripture).

Refer to Ezekial 36: 26-27 below, and to the image provided for the final discussion.

### John 3: 3-16

<sup>3</sup> Jesus replied, "Very truly I tell you, no one can see the kingdom of God unless they are born again.<sup>[a]</sup>"

<sup>4</sup> "How can someone be born when they are old?" Nicodemus asked. "Surely they cannot enter a second time into their mother's womb to be born!"

<sup>5</sup> Jesus answered, "Very truly I tell you, no one can enter the kingdom of God unless they are born of water and the Spirit. <sup>6</sup> Flesh gives birth to flesh, but the Spirit<sup>[b]</sup> gives birth to spirit. <sup>7</sup> You should not be surprised at my saying, 'You<sup>[c]</sup> must be born again.' <sup>8</sup> The wind blows wherever it pleases. You hear its sound, but you cannot tell where it comes from or where it is going. So it is with everyone born of the Spirit."<sup>[d]</sup>

<sup>9</sup> "How can this be?" Nicodemus asked.

<sup>10</sup> "You are Israel's teacher," said Jesus, "and do you not understand these things? <sup>11</sup> Very truly I tell you, we speak of what we know, and we testify to what we have seen, but still you people do not accept our testimony. <sup>12</sup> I have spoken to you of earthly things and you do not believe; how then will you believe if I speak of heavenly things? <sup>13</sup> No one has ever gone into heaven except the one who came from heaven—the Son of Man.<sup>[e]</sup> <sup>14</sup> Just as Moses lifted up the snake in the wilderness, so the Son of Man must be lifted up,<sup>[f]</sup> <sup>15</sup> that everyone who believes may have eternal life in him."<sup>[g]</sup>

<sup>16</sup> For God so loved the world that he gave his one and only Son, that whoever believes in him shall not perish but have eternal life. <sup>17</sup> For God did not send his Son into the world to condemn the world, but to save the world through him. <sup>18</sup> Whoever believes in him is not condemned, but whoever does not believe stands condemned already because they have not believed in the name of God's one and only Son. <sup>19</sup> This is the verdict: Light has come into the world, but people



loved darkness instead of light because their deeds were evil. <sup>20</sup> Everyone who does evil hates the light, and will not come into the light for fear that their deeds will be exposed. <sup>21</sup> But whoever lives by the truth comes into the light, so that it may be seen plainly that what they have done has been done in the sight of God.

## Teaching from the Catholic Catechism regarding “being born again”

The Catechism outlines several core dimensions regarding how this spiritual rebirth functions:

- **The Washing of Regeneration:** The [CCC 1215](#) explicitly states that Baptism is "the washing of regeneration and renewal by the Holy Spirit," meaning it literally brings about the birth of water and the Spirit required for salvation. [[1](#)]
- **A New Creation:** Through this spiritual rebirth, the sinner is transformed from a state of sin into a state of grace. As noted in CCC 1265, Baptism makes “a new creature,' an adopted son of God". [[1](#), [2](#)]
- **Dying and Rising with Christ:** In [CCC 1988](#), the Church clarifies that through the power of the Holy Spirit, we take part in Christ's Passion by dying to sin, and participate in his Resurrection by being "born to a new life". [[1](#)]
- **Adoption Into God's Family:** Spiritual rebirth bestows immediate sonship/daughterhood. The soul is permanently marked, making the baptized person a living temple of the Holy Spirit. [[1](#), [2](#), [3](#), [4](#)]

The Church continues to tell us that being “born again” through the Sacrament of Baptism is only the beginning of the Christian life, not its final destination. It is a lifetime journey from there. We need to nurture the grace given at our baptisms through ongoing conversion, prayer, charity, and receiving the other Sacraments—the Sacrament of Confirmation - and regularly the Sacraments of the Holy Eucharist and Reconciliation. [[1](#), [2](#), [3](#)].

## Final Discussion:

As a final closing discussion, please Refer to Ezekial 36: 26-27 below, and to the image provided.

### In Ezekial 36: 26-27 it says:

*I will give you a new heart and put a new spirit within you; I will take the heart of stone out of your flesh and give you a heart of flesh. I will put My Spirit within you and cause you to walk in My statutes, and you will keep My judgments and do them.*

In this Scripture, God promises to fill us with a “new spirit” and give us a “new heart”. When God’s Spirit and our spirit blends together, a new heart is brought into being: clean, righteous, full of His love, and in the image of God.

Recall the image of our heart when we are 20 weeks old in the womb. When our hearts are fully formed, the tissue in the center of our hearts forms a cross. There are no accidents in this. God created everything just as He wanted. We are meant to be given a new heart in Christ, as seen here. We are meant to surrender everything, to allow His spirit to fill us completely to give us this new heart. This new heart allows us to receive His love, truth, goodness and mercy fully and then to pour it out into the world for others.

You are unique – no one will ever be like you for all of eternity. No one has your DNA, your personality, your gifts. When we are born again, given a new heart and a new spirit – our gifts, our personality and all that we are can be used by our Father to bring forth great good. “For I know the plans that I have for you, plans to give you a hope and a future.” Jeremiah 29:11

Trust in Him. Trust in this promise. Allow yourself to be born again in Him and you will find great joy and great purpose, and what God intended for you when He knitted you in your mother’s womb, can come to fruition.

**Ultrasound photo of 20-week-old pre-born person’s heart in the womb**



# Month 9 Pre/Post Quiz



- 1** Fetal \_\_\_\_ are hardening, with the exception of the cranium to aid in flexibility at birth.
  - a) muscles
  - b) hands
  - c) bones
  - d) tendons
- 2** Pre-born persons and newborn babies have \_\_\_\_ bones, while adults have 206.
  - a) 300
  - b) 500
  - c) 100
  - d) 150
- 3** Months 9-10 is weeks \_\_\_\_ - \_\_\_\_ after conception.
  - a) 21-29
  - b) 31-38
  - c) 32-40
  - d) 27-35
- 4** The pre-born person is putting on over 1 pound per week at this age and stage.
  - a) True
  - b) False
- 5** The pre-born person's \_\_\_\_ can change size in response to light.
  - a) Hands
  - b) Ears
  - c) Entire eyes
  - d) Pupils
- 6** A pre-born person's \_\_\_\_ form early, allowing a range of flavors to be experienced before birth.
  - a) Nose
  - b) Amniotic fluid
  - c) Taste Buds
  - d) None of the above
- 7** Most babies are born between 38 and 42 weeks.
  - a) True
  - b) False
- 8** A pre-born person is considered full-term at:
  - a) 28 weeks after conception
  - b) 32 weeks after conception
  - c) 35 weeks after conception
  - d) 37 weeks after conception
- 9** Because a pre-born person can hear in the womb, it often seems as though the parents' voices are recognizable and soothing after birth.
  - a) True
  - b) False
- 10** Approximately, what is the average weight of a baby at birth?
  - a) About 10 lbs
  - b) About 2 lbs
  - c) About 7 ½ lbs
  - d) About 16 ounces

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## Appendix

### Note to the Teacher:

The information in this appendix is meant to support you in answering students' questions that might arise during the program. It is also meant to support you if you choose to give more information to your students about topics that are related to fetal development, pregnancy, and the pre-born person. The information is in no way comprehensive as the topics surrounding this issue are vast and deep. It is meant to provide general knowledge about certain topics, with the freedom for you, as the educator, to find additional resources and information if desired.

### Birth Information and Statistics:

- In the United States of America, in the year 2025, there were 3,606,400 births (CDC National Vital Statistics System, 2026).
- 132 million people were born in the world in 2025, which means that in one day, 360,000 babies are born across the globe (Macrotrends, 2026).

*Data taken from: CDC National Vital Statistics System, 2026; Macrotrends (achieved 2026).*

### Adoption Information:

#### **Statistics:**

- American Adoptions shares that there are about 2 million people right now in our country who want to adopt.
- Out of those families who want to adopt an infant, American Adoptions estimates that there is only 1 infant available for adoption per every 36 families. Therefore, many families who want to adopt an infant will not be able to.
- Although there is not an official number reported for private adoptions in our country, the National Council for Adoption estimated (based on previous trends and patterns that in 2025) there were 25,500 infants adopted.
- It is important to note that the Guttmacher Institute, an official abortion reporting organization, stated that in 2025 there were 1,126,000 abortions.

- Based upon looking at both these statistics, we can calculate that abortion is 44 times more chosen than adoption.
- Adoption advocates believe that education on the positivity of adoption can help more mothers choose life and develop an adoption plan for their child, thus giving those 36 families a higher chance of being able to welcome more babies into their family's lives.
- In the fiscal year 2024, there were 46,935 public adoptions reported in the United States (The Adoption and Foster Care Analysis and Reporting System, 2025). This number strictly reflects only adoptions made through the public foster care system. Private or international adoptions are not included in national reporting, as there is no standard database for these adoptions.

### Types of Adoption:

- There are three types of adoption: *Open*, *semi-open*, and *closed*. Over 70% of adoptions in our country are open.
  - In an *open adoption*, the birth mother can choose the adoptive parents for her child. This can be done through someone she already knows, or through an adoption agency. These agencies have lists and thorough information about families who want to adopt a child. The birth mom can read about these families, interview them and choose who she wants to parent her child. The birth parents and adoption parents can continue to make decisions about the birth parents' future involvement with the child. Some birth parents are very involved, while others are not at all.
  - In a *semi-open adoption*, the adoption agency acts as the middleman between the birth parents and adoptive parents. Letters, cards, photos, and gifts can be sent through the adoption agency, but the birth and adoptive parents do not know one another. All Communications are accomplished through the agency.
  - In a *closed adoption*, the birth mother chooses an adoption plan for her child but does not know who the adoptive parents will be and does not have further contact. This is not chosen because the mom does not love her child. Most mothers who choose adoption love their children very much and want the very best quality of life for them.

*Data taken from: American Adoptions (achieved 2026), National Council for Adoptions (achieved 2026), Guttmacher Institute, 2026 Fact Sheet, The Adoption and Foster Care Analysis and Reporting System via the National Council for Adoption, 2025*



**\*For more information on adoption, we recommend the following sources:**

National Council on Adoption: <https://adoptioncouncil.org>

American Adoptions: <https://www.americanadoptions.com>

Catholic Charities of Omaha (for local information): <https://ccomaha.org>

**\*For Heart of a Child Ministries' videos highlighting the gift of adoption:**

<https://vimeo.com/475316934> passcode: ADOPTION

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## **Foster Care Information:**

### **Statistics:**

- At the time of writing, there are approximately 328,947 children in public foster care systems in the United States.
- 171,000 of those children were placed in foster care in 2024 (the most up to date statistic at the time of publication).
- Only 109,000 children are awaiting adoption from foster care. The others are awaiting the possibility of reunification.
- In 2024, about 54% of the foster care population exited the system. Of those children who exited, 45% were reunited with their parents, 27% were adopted, 11% entered guardianship, and the rest aged out of the system.
- The number of children in foster care has declined for the 6<sup>th</sup> consecutive year.

### **Common Misconceptions and Myths Surrounding Foster Care:**

- **“Most children in foster care are waiting to be adopted.”**
  - Reality: Most children in foster care are **NOT** waiting to be adopted. The primary goal of foster care is to help families to heal, and to reunite when and if it is safe to do so.
- **“If a baby isn’t aborted, and the parents can’t take care of the child, then they will just end up in foster care.”**
  - Reality: Foster care is intended to be temporary; a safety measure for the child in times of crisis. Close to half of the children who exit foster care will reunite

safely with their families. Babies whose families voluntarily choose adoption are most often placed with adoptive families—not long-term foster homes.

- **“Children in the foster care system are always placed with someone they do not know.”**
  - Reality: While traditional foster homes are common (47%), efforts towards **kinship care** are always exhausted first. This can be grandparents, aunts/uncles, adult siblings, or a close family friend.

*Data taken from: U.S. Administration for Children and Families Children’s Bureau, 2024, National Council for Adoption, 2025, U.S. Department of Health and Human Services, 2025.*

## Abortion Information:

### Spontaneous Abortion vs Elective Abortion:

- *Spontaneous Abortion*: This is the medical terminology that refers to miscarriage, the common and natural death of a preborn child, often from unknown causes.
- *Elective Abortion*: This is the medical terminology that refers to the intentional ending of a pregnancy through the direct killing of the pre-born person. This is what is typically referred to when using the standalone word: abortion. This is what the following information will be referring to.

### Statistics:

- In 2025, there were 1,126,000 abortions in the United States, a 21% increase from the year 2020. In 2025, there were 73 million abortions worldwide.
- **US Statistics regarding age**: 2% of people obtaining abortions were 17 years of age or younger. 61% of people choosing abortion are in their 20’s.
- **US Statistics regarding reasons why**: According to the Lozier Institute and voluntary self-reporting by abortion seeking women in 2021, the usual legal exceptions to abortion limits (rape and incest, risk to the mother’s life, physical health concerns, abnormality in preborn baby) account for only 4.1% of the reasons for obtaining abortions. 95.9% of all abortions are considered elective or obtained for unspecified reasons. (*Lozier, 2024*).

## Abortion regarding health of the mother and other difficult circumstances:

- Abortion is often justified in cases where the health of the mother is at risk. It is important to note, regarding the health of the mother, that former abortionist, Dr. Anthony Levantino stated, “You never need a late term abortion to save a woman’s life.” He further explained, “I was faculty at the hospital for nine years, and I saw hundreds of cases of really severe pregnancy complications- cancers, heart disease, intractable diabetes, toxemia out of control, and I saved hundreds of women from these life-threatening pregnancies...by delivery – either induction or c-section, delivering the baby. And I always tell people – in all of those years, the number of babies that I had to-that I was obligated to deliberately kill in the process to save the mother was zero. None. (Live Action and EWTN, obtained in 2026).”
- *For those in faith-based Catholic schools*, it is important to note that in Catholic Church teaching, it is permitted for a surgery to be performed directly on a pregnant woman to treat a serious, life-threatening maternal condition. If the medical procedure indirectly results in the death of the pre-born child, it is not intentional and therefore not considered morally wrong or evil. This framework is strictly governed by Directive 47 of the Ethical and Religious Directives for Catholic Health Care Services (ERDs), which explicitly allows operations that directly cure a proportionately serious maternal pathological condition when the treatment cannot be safely postponed until the child is viable.

## Resources that address Abortion in Difficult Circumstances (Rape/Incest):

- <https://radiancefoundation.org/portfolio-posts/life-has-purpose/>
- [https://www.youtube.com/results?search\\_query=rape+and+abortion](https://www.youtube.com/results?search_query=rape+and+abortion)
- The 40 Film: <https://www.youtube.com/watch?v=Zuj5lR6lBHQ>

*Data taken from: The Guttmacher Institute, March 2026 (Guttmacher is an independent organization considered to have the most accurate abortion figures); WHO (World Health Organization), 2026. Charlotte Lozier Institute, May 2024; The National Catholic Bioethics Center, The Bioethics of High-Risk Pregnancy, 2022.*

## Types of Abortion: Surgical and Medical (Chemical) Abortions:

**Most abortions today are chemical/medical abortions**, with 2023 data indicating that 65% of all clinical abortions are medical (accomplished through abortion pills not surgery), and that 93% of abortions occur within the first 13 weeks of pregnancy. 35% of abortions are surgical abortions.

- *Surgical Abortions*

- Manual Vacuum Aspiration: Performed in the first trimester. Plastic syringe attached to suction hose is inserted into the uterus to remove the preborn person via suction.
- Electric Vacuum Aspiration: Performed in first trimester and first part of second trimester. Similar to the manual vacuum aspiration, except that the vacuum instrument is controlled by electric suction rather than a syringe.
- Dilation and Evacuation: The standard procedure for second trimester abortion. The abortionist used a combination of a vacuum and surgical instruments (such as forceps) to dismember the preborn human within the uterus and extract it piece by piece.
- Intact Dilation and Extraction: Performed in the late second and early third trimester abortions. Labor and delivery of the preborn child is induced, and the child is delivered feet first, leaving only the head within the mother. The base of the skull is punctured or otherwise severed, and the brain matter is suctioned via vacuum. This allows the skull to collapse for easy delivery of the corpse. This type of abortion has been federally outlawed in the United States since 2003 under the “Partial Birth Abortion Ban.”
- Intact Dilation and Extraction (Legal): The current form of this procedure is exactly the same as the one listed above, except that a lethal injection is administered to the preborn child before the procedure to ensure that it has died before beginning the delivery of the corpse.
- Hysterotomy: Performed in the late second or third trimester. The preborn child is administered a lethal medication to guarantee fetal death, and then surgically removed through the abdomen, the exact same way that a child would be delivered alive via cesarean section.

*Data taken from: The American College of Obstetricians and Gynecologists (ACOG), May 2026; The United States Supreme Court, November 2003.*

- *Chemical/Medical Abortions*

- 65% of abortion performed in the US in 2024 were chemical abortions.
- **Age limits**: Chemical abortions are considered medically safe for the mother when the pre-born person is 11-weeks, LMP or less in age. They have been approved by the FDA through 10 weeks or 70 days of pregnancy.
- **How it works**: The standard procedure for chemical abortion is the application of two medications: mifepristone and misoprostol.

- The first oral tablet, **Mifepristone**, blocks the effects of progesterone, a naturally occurring hormone that provides vital nutrients needed for a developing baby. This blocking of progesterone causes the placenta to break down, so it can no longer provide oxygen and nutrients to the child. Unless the process is reversed quickly (which is possible), mifepristone will kill the child approximately 70% of the time.
- The second oral pill, **Misoprostol**, taken 1-2 days after the mifepristone, causes the uterus to contract, (like labor), expelling the pre-born person from the uterus. Misoprostol can be used in combination with Mifepristone, or it can be used alone in multiple doses. Pills are given to a woman through the mail or at a clinic, like Planned Parenthood, with the abortion occurring for the woman – alone at home.
- **Side effects:** uterine cramping and bleeding. Other possible side effects may include nausea, vomiting, diarrhea, abdominal pain, dizziness, fever, and hot flashes. It is also important to note that many women have psychological effects from seeing the results of their chemical abortions. There is always a lot of blood. Sometimes women see their aborted babies in part or full form. This can cause great trauma spiritually and emotionally for women- being faced with the reality of their choice.
- **Telehealth:** It is important to note that telehealth-provided abortions are on the rise. Women can receive abortions easily through this route which delivers the pills through the mail. 24% of abortions were achieved through the means of telehealth in 2025. This method of abortion is possible in all fifty United States. Even in the few states where there is a total abortion ban, like Texas and Alabama, out of state doctors may prescribe and mail these medications to pregnant mothers living in those states, with their licenses and legal status protected by their own state “shield laws.”
- **Lack of regulation:** Although it is stated that the abortion pills are meant for pre-born people who are 11 weeks old or less, there is no proof of gestational age required. This has resulted in women taking the abortion pills who are further along in pregnancy than 11 weeks.
- **Effects of taken abortion pills after 11 weeks:** Taking a medication abortion regimen when the pre-born person is older than 11 weeks significantly increases the risks of severe physical complications and reduces the effectiveness of the drugs. The following results become far more likely:
  - **1. Incomplete abortion** – retained tissue. As the gestational age increases, the amount of pregnancy tissue grows substantially. The medications may fail to expel the full contents of the uterus, therefore there is a much higher chance of a life-threatening infection resulting in a woman requiring a follow-up surgery to remove the contents of the uterus – placenta, parts of the pre-born person, etc.
  - **2. Severe hemorrhaging.** Cramping and bleeding are normal parts of a chemical abortion but as the pre-born person grows and the placenta grows the amount of bleeding greatly increases putting the woman at risk for dangerous blood loss, severe pain and abdominal stress, leading to the need for a blood transfusion or possibly death.
  - **3. Increased psychological and spiritual trauma** - as the pre-born person is larger in size with the physical experience of pain and bleeding being more

traumatic and the human person being more identifiable for the mother after his or her death, the emotional and spiritual trauma increases.

- **4. Increased chance of fetal damage:** The later the woman waits to use the chemical abortion protocol, the higher the chances are that it will not succeed in aborting the pre-born person. Although most pre-born persons who survive an unsuccessful chemical abortion are born normal, they are at higher risk for birth defects or fetal damage.

**\*For more resources:** on abortion, statistics, types of abortion, chemical abortion, short video clips of testimonials regarding abortion, abortionists who have been converted, stories regarding rape and incest and the choice of parenting or adoption, and health of the mother issues please go to:

- **Live Action** - <https://www.liveaction.org/videos>
- **The 40 Film** - <https://www.youtube.com/user/the40film> - this offers short video clips on various segments surrounding this issue
- **Heart of a Child Ministries video** on woman who had abortion and shares effects:
- <https://vimeo.com/490891506> passcode: ABORTION
- <https://vimeo.com/466368862> video on abortion and people with disabilities
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- **Guttmacher Institute**, <https://www.guttmacher.org>
- **Charlotte Lozier Institute**, <https://lozierinstitute.org>
- **Local Nebraska Statistics** <https://dhhs.ne.gov/Documents/Nebraska-Abortion-Dashboard-Summary-2025.pdf>
- **Heart of a Child Ministries video** on woman who had abortion and shares effects: <https://vimeo.com/490891506> passcode: ABORTION

## **Abortion Pill Reversal Protocol (APR):**

- Sometimes women regret taking the abortion pill. When that is the case, there is another option – the abortion reversal pill. If a woman has only ingested the first pill- Mifepristone, she can take the abortion reversal pill and reverse the effects of Mifepristone with the result of keeping the pre-born person alive and intact.
- **What is the abortion pill reversal (APR)?**
  - APR protocol is composed of *progesterone* (the pro –gestational hormone). Progesterone, produced naturally by a mother during pregnancy, is what keeps the pre-born person intact. Because the first abortion pill, Mifepristone, is a



- progesterone blocker, it causes the pre-born person to detach from the mother which leads to an inability to receive nutrients which causes death. The answer to reverse the effects of this first abortion pill is to pump the body with progesterone.
- *Time is essential:* The goal is to start the protocol within 24 hours of taking the first abortion pill, **Mifepristone (RU-486)**. However, there have been many successful reversals when treatment was started within 72 hours of taking the first abortion pill.
  - *The success rate:* The current success rate of the abortion reversal pill if taken in a timely manner is approximately 68%. There were an estimated 2,408 successful reversals in 2025 (a 25% increase from the year before) with a total of over 7500 lives saved through reversals.
  - *Abortion Reversal Hotline:* If a mother regrets her decision to take the first abortion pill, she can call the national hotline number and they will connect her with a provider in her area who is on-call at any time during the day or evening and begin the abortion reversal pill treatment. This number is: 877-558-0333.

*Data taken from: Abortion Pill Rescue, abortionpillreversal.com, achieved 2026; Heartbeat International Life Trends Report 2026.*

**\*For more resources on abortion reversal pill:** go to [abortionpillreversal.com](https://abortionpillreversal.com).

For a short excellent video clip on a woman who had a successful abortion reversal please go to: <https://www.youtube.com/watch?v=0OaINTEpn5c&t=11s>

- Other videos can be found on **Live Action** - <https://www.liveaction.org/videos>

## **Mental Health Support after Abortion:**

There are organizations that specifically provide emotional and spiritual support for anyone suffering from the trauma of abortion. Not only women, but men can be deeply affected by the choice of abortion. For example, convincing a girl friend to have an abortion can result in the man living with deep guilt and regret and result in self-deprecating behaviors. *Project Rachel*, *Rachels Vineyard* and *Hearts Restored* are several of the organizations that specialize in supporting women and men in healing from the negative effects of abortion.

*Data taken from: Support After Abortion, 2025*

**\*For more information on support for men and women after abortion** go to [supportafterabortion.com](https://supportafterabortion.com) or [rachelsvineyard.org](https://rachelsvineyard.org).

## Resources for Women/Men Experiencing an Under-Supported Pregnancy:

- There are numerous resources available to support women/men who are experiencing an under-supported pregnancy and/or are considering abortion throughout the country. Pregnancy Help Organizations (PHOs) provide supports ranging from counseling, social work, women and men mentoring groups, adoption support, medical care, treatment and testing, classes – like parenting and life skills classes, tangible resources- baby items, furniture, etc.; monetary support, and even spiritual support like bible studies.
- Maternity homes are a type of pregnancy help organization that offer housing for women during their pregnancy and afterwards with supports that involve counseling and mentoring, social work services, monetary supports, resource support, daycare support, career and education development, and spiritual support.
- Heartbeat International operates the most expansive network of PHOs in the world with over more than 4,000 affiliates across over 100 countries. It supports, trains, and provides legal and operational resources to pregnancy help organizations – resource centers, medical clinics, maternity homes, and adoption agencies.
- Thousands of women and men have transformed their lives and lifestyles, and many lives of pre-born persons have been saved through the support of pregnancy help organizations.

*Data taken from: Heartbeat International Life Trends Report, 2026.*

*<https://www.heartbeatinternational.org/about/life-trends-report>*

**\*For more resources on PHOs:** please refer to the Life Trends Report by Heartbeat International, 2026. *<https://www.heartbeatinternational.org/about/life-trends-report>*

**\*For videos that highlight women who received support from a PHO and chose life and are grateful for this choice, please refer to:**

**Heart of a Child Ministries videos:**

- <https://vimeo.com/486482786> password: ABORTION
- <https://vimeo.com/486482786>

**EPS Pregnancy Help Organization Video:**

- <https://www.facebook.com/epsnebraska/videos/our-client-lily-shares-her-journey-through-abortion-and-mental-health-highlighti/852408557020878/>

## Miscarriage:

- Miscarriage, which is defined as the loss of a pregnancy in the womb prior to 20-weeks-gestation, can happen for many diverse, and often unexplainable reasons. It is estimated that 10-20% of pregnancies end in miscarriage.
- **Reasons for miscarriage:** Miscarriage is usually a random event. According to the American College of Gynecology and Obstetrics (ACOG): “Working, exercising, stress, arguments, having sex, or having used birth control pills before getting pregnant do not cause miscarriage.” Few medications cause miscarriage, and morning sickness — the nausea and vomiting common in early pregnancy — also does not cause it, according to ACOG. “Some women who have had a miscarriage believe that it was caused by a recent fall, blow, fright or stress. In most cases, this is not true,” ACOG says. Chromosomal abnormalities or abnormal development, problems with the uterus or cervix, or infections are frequent causes of repeat miscarriage.
- **When it occurs/intervention:** Oftentimes the pre-born person is miscarried very young where the mother did not even know that she was pregnant. Sometimes miscarriage happens further along in pregnancy, where it can be painful with a lot of bleeding. Some miscarriages happen far along enough in pregnancy where a medical intervention to remove the deceased child is necessary.
- **Support for miscarriage:** Miscarriage can be a traumatic and grief-filled experience for the mother and father. It is often very helpful for parents to name their child, bury their child, and honor the life of their child. There are many wonderful organizations that walk with women and men during this process and when healing from the pain of miscarriage. Some of these are: Miscarriage Matter and Pregnancy Loss Support Program.

**\*For more information on miscarriage, please go to:**

<https://www.hopkinsmedicine.org/health/conditions-and-diseases/miscarriage>

Cleveland Clinic, Miscarriage: Pregnancy Loss, Causes and Signs

<https://myclevelandclinic.org>

**\*For faith-based Catholic Schools:**

**Ectopic Pregnancies and The Principle of Double Effect:**

- An ectopic pregnancy occurs when a fertilized egg becomes attached and begins growing in an area other than the uterus. In almost all cases, this occurs in the fallopian tube. The uterus is specifically designed to facilitate a growing preborn human, whereas the fallopian tubes and other organs are not. An ectopic pregnancy is a severe, life-threatening medical situation that requires immediate intervention. Medical intervention in such a case, at this point in medical technology, will always result in the death of the baby.
- In Catholic theology, there is a principle known as the principle of double effect. In short, this means that a morally good or neutral act can be done for a good intention, even if there is foreseen and unavoidable negative consequences that will occur because of the action. In such a case, the negative consequence cannot be the means of achieving the intended good result. In other words, you cannot do an evil thing for a good reason. St. Thomas Aquinas formulates this principle using the example of self-defense. If someone were attacked, he could defend himself with proportional force in order to stop the threat, even if the attacker would die as a result of the defense. In this case, the defender is not intending the death of the attacker, but merely the preservation of his own life. The “double effect” is the preservation of the defender’s life, and the end of the attacker’s life. Such a situation would be morally licit on the part of the defender.
- In the case of ectopic pregnancies, it is morally licit for a doctor to surgically remove the pathologically damaged fallopian tube (a procedure called a salpingectomy) to stop the imminent threat of death to the mother. Unfortunately, with today’s medical technology, it is not possible to save the child’s life in this circumstance. Applying the principle of double effect, we can see that the intended and good consequence of saving the mother’s life, while permitting the foreseen and unintended negative consequence of the death of the child, while tragic, is morally licit.
- In the very rare case of an abdominal ectopic pregnancy, the principle of double effect still applies. In such a case, the surgeon must remove or isolate pathological vascular tissue from an abdominal organ inside the mother. The removal or isolation of this tissue, which is essentially the still forming placenta, will inevitably result in the death of the child when performed before viability. Just as in the case of the tubal ectopic pregnancy, the intended consequence is to prevent the imminent danger to the mother’s life, while the foreseen and unintended negative consequence is the death of the child. Again, this is a tragic situation, but the operation is morally licit.
- It is worth noting that if ever a time in medical technology arrives in which it is possible to save the life of the child during this procedure, the attempt to do so will be morally obligated.

- For the sake of clarity, we must reemphasize that direct abortion, wherein the actual pre-born person is the direct target of destructive medical intervention, is always and everywhere morally reprehensible. Procedures done to remedy an ectopic pregnancy are performed to cure a pathology; elective abortion is a procedure performed to terminate a pregnancy through the intentional killing of the preborn child.

### Catholic Teaching on Life Issues:

- The fundamental principle of Catholic Social Teaching is that each and every person has inherent human dignity, bestowed upon them by the very fact that they are human and made in the image and likeness of God. All social teachings of the Church flow from that foundation.
- Regarding the practice of abortion: direct abortion is always and everywhere prohibited. It is never morally licit to intentionally take the life of an innocent; elective abortion is the intentional killing of the innocent; therefore, abortion is never morally licit. See the *Catechism of the Catholic Church*, paragraphs 2270-2275 for more information.
- Regarding the practice of euthanasia: the same principles listed for abortion apply here. Euthanasia is the direct ending of human life, particularly a life which is sick or otherwise infirmed, either by adding some drug in a lethal amount or by depriving the subject of ordinary care, such as nutrition and hydration. While extraordinary medical treatments that merely prolong a painful dying process may be morally withdrawn to allow a natural death, deliberately depriving a patient of basic care to cause their death is a grave violation of the fifth commandment, which prohibits the direct killing of an innocent human being. All human life has inherent dignity, and to intentionally cut that life short, even to mitigate suffering, is to violate the respect and care that should be shown to the weak and vulnerable. See the *Catechism of the Catholic Church*, paragraphs 2276-2279 for more information.

### Catholic Teaching on Birth Control/Abstinence:

- The Catholic Church's positions on sexual morality align with and grow from its understanding of the human person. Since each person is precious in the eyes of God, made for the purpose of love, and possesses intrinsic moral value and dignity, the act that leads to their creation is wrapped in reverence and sacred responsibility. Human reproduction is an act of co-creation with God wherein a new, unique, unrepeatable human person comes into existence. This human person, a body and soul composite, is an inheritor of eternity by virtue of their immortal soul. To treat sexuality and reproduction as casual recreation with consequences that can be prevented through

contraception or terminated by abortion is to misunderstand the purpose and severity of this gift of God.

- Owing to its gravity and intimacy, the gift of human sexuality is shielded and defended by the sacrament of Holy Matrimony. As such, any form of sexual contact outside of the sacrament of marriage is explicitly forbidden and sinful. All those outside this very specific vocation of marriage are called to practice the virtue of chastity and to abstain from any form of sexual contact, either mental or physical. For further reference, please see *Catechism of the Catholic Church Paragraphs 2337 – 2359*.
- Many argue that birth control is a good way to mitigate the number of abortions in the world, and that the Church ought to embrace and promote this practice. However, the use of contraception within the marital act of sexual union diminishes the fullness of the act itself, reducing it to a means of pleasure seeking instead of a unitive act and recreation of the marriage sacrament between husband and wife.
- The Church teaches the practice of NFP (Natural Family Planning) - utilizing the natural signs of fertility that God gives women to plan our families - utilizing prayer and discernment.
- By observing that the natural end of sexual union is procreation, it is clear to the Church that to remove the possibility of fertility from the act is to do damage to the act itself, and to reduce the partner to the level of object. Recall that man is made for the purpose of loving and being loved; so, to break the marital act in this way is to violate the vows of marriage, and to go against the perfect design of God for this great gift. For further reference, please see *Catechism of the Catholic Church Paragraphs 2360 – 2379*, as well as Pope St. Paul VI's encyclical letter, *Humanae Vitae* (July 25, 1968).

### Heart of a Child Ministries' Information:

Heart of a Child Ministries has been in existence as a Nebraska non-profit organization since 2012. We are the first live-ultrasound school educator in the country, based in Omaha, NE. Presenting in both public and private faith-based schools, we have developed four effective, fetal development, live ultrasound presentations for grades K-4, 5-6, middle school, and high school and beyond. We train educators across the country on how to bring these powerful presentations into their communities. Heart of a Child Ministries has also created this teacher-led curriculum called *The Journey Within*, based upon 10 years of experience providing fetal development education presentations in the schools. For more information please go to our website at [heartofachildministries.org](http://heartofachildministries.org).





# Teacher Survey

## Teacher Information

School: \_\_\_\_\_

Grade(s) taught: \_\_\_\_\_

Subject(s) taught: \_\_\_\_\_

Approximately how many students participated?: \_\_\_\_\_

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## Program Experience

1. What aspects of the posters and PowerPoint presentations were most effective?

2. What aspects of the posters or PowerPoints could be improved?

3. What parts of the program did you utilize? (Please mark all that apply):

- ☐ Posters
- ☐ PowerPoints
- ☐ Discussion Questions
- ☐ Quizzes
- ☐ Spiritual Reflections

4. Were the teacher materials easy to use?

- ☐ Very easy
- ☐ Easy
- ☐ Neutral
- ☐ Difficult
- ☐ Very difficult

If difficult, what would have made them easier?

5. What parts of the program worked well for your students? What didn't work well? Please share what you would change.
6. Did you utilize the program once a month or something different? How long did it take to administer each lesson?
7. If you utilized the spiritual reflections, please share your experience. What worked for your students? What would you change, if anything?

### Student Engagement

8. On a scale of 1 to 5, how engaged were your students throughout the program?
9. Which lesson or activity seemed to have the greatest impact on your students? Did the program encourage thoughtful discussion among your students? If yes, what discussions stood out?

Any other thoughts or comments?

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