

LESSON 5

THE BIOLOGICAL CASE FOR THE UNBORN

TOPIC/ESSENTIAL QUESTIONS

- What does science tell us about the status of the unborn?
- How can we convey scientific evidence in an effective manner that brings clarity to the conversation?

STANDARD SKILLS:

- Reading—Analyzing Informational Texts
- Speaking—Oral Synthesizing, Self-Reflection, Dialogue Skills

OBJECTIVE:

Students will be able to verbally articulate biological facts about the unborn. Students will be able to synthesize the Trot Out a Toddler Tool with these biological facts with the support of a scripted dialogue and an improvised dialogue outline. Students will be able to verbally reflect on the effectiveness of their practice dialogue with the support of guiding questions and a partner.

RESOURCES AND MATERIALS:

- Lesson 5 videos and slide sets (available on Teachable)
- Student worksheet, 1 printed per student or on a digital device with PDF annotation software
- Graphic organizers, printed or on a digital device with PDF annotation software. Every student needs one graphic organizer out of the three.
- Laptops, cell phones, or another method for students to read informational texts online.
- Audio recording devices, such as a laptop or cell phone (1 device per student)

LESSON 5 OVERVIEW:

- Video 5.1: The Ten-Second Pro-Life Apologist
- Slide Set 5.1: Partner Practice
- Video 5.2: What Does the Science Say?
- Slide Set 5.2: Exploring the Science
- Video 5.3: Living, Human Organism
- Video 5.4: Biology in Dialogue
- Slide Set 5.4: Scripted Practice & Formative Assessment: Partner Dialogue

FORMATIVE ASSESSMENT:

In pairs, students try putting Trot Out a Toddler and the Biological Evidence together. Choose one student in each pair to be pro-life (PL) and the other to be pro-choice (PC). Use the outline below to guide them through improvising a dialogue about abortion.

- **PC:** “There are too many women and children in poverty. We need abortion so that women can break out of the cycle of poverty and there aren’t more children born into poverty than we already have!”
- **PL:** Remember the outline of Trot Out a Toddler:
 1. Affirm the Concern
 2. Brace Them for the Weird Question
 3. Create a Parallel Situation
 4. Describe the Logic
- **PC:** “Yeah, but the toddler and the fetus are not the same thing! A toddler is alive and literally here, but no one knows when life begins!”
- **PL:** Remember the outline of giving biological evidence:
 1. Ask the clarification question: Do they mean biological life or something more philosophical (like when a valuable person starts to exist)? If they mean biology...
 2. Give the 10-second pro-life apologist
 3. If they are unconvinced, give further reasons why the unborn is alive, human, and an organism.

After the dialogue, each pair makes and turns in an audio recording of an at least three-minute conversation between them discussing how the dialogue went. With their partners, they reflect on:

1. Did the dialogue feel natural? What could the pro-life person have done to make the dialogue feel more natural?
2. What practical dialogue tips did you notice the pro-life person use in the dialogue?
3. Did the pro-choice person feel that their concerns were affirmed and their former ideas about biology adequately addressed? Why or why not?



ADAPTING FOR HOMEWORK:

As an “exit ticket” to leave class, students have two improvised practice dialogues—one where they are pro-life and the other where they are pro-choice.

For homework, each student creates an audio recording verbally reflecting on the two conversations by answering the questions above.

FORMATIVE ASSESSMENT OPTIONAL GRADING RUBRIC: PARTNER PAIR: _____ AND _____

	1 POINT	2 POINTS	3 POINTS
COMPLETION: AUDIO RECORDING	Students did not submit an audio recording reflection.	Students submitted an audio recording reflection, but it was less than three minutes in length.	Students submitted an audio recording reflection that was at least three minutes in length.
PERFORMANCE: DID THE DIALOGUE FEEL NATURAL?	Students did not verbally reflect on how natural the dialogue felt.	Students verbally reflected on how natural the dialogue felt, but they did not name any specific things that the pro-life person could have done to make the dialogue feel more natural.	Students verbally reflected on how natural the dialogue felt. They named at least one specific thing that the pro-life person could have done to make the dialogue feel more natural.
CONTENT: PRACTICAL DIALOGUE TIPS USED IN DIALOGUE	Students did not reflect on any specific practical dialogue tips.	Students verbally reflected on one practical dialogue tip they noticed the pro-life person use in the dialogue.	Students verbally reflected on the practical dialogue tips they noticed the pro-life person use in the dialogue. Students mentioned at least two specific practical dialogue tips.
APPLICATION: AFFIRMED PRO-CHOICE CONCERNS AND ADDRESSED BIOLOGY IDEAS	Students did not verbally reflect on how the pro-choice person felt in the conversation.	Students verbally reflected on how the pro-choice person felt in the conversation, either in how their concerns were affirmed OR how their biology ideas were addressed.	Students verbally reflected on how the pro-choice person felt in the conversation, both in how their concerns were affirmed and how their biology ideas were addressed.
			TOTAL POINTS: (12 MAXIMUM) _____

The Biological Case for the Unborn

Lesson Plan | 60 Minutes

TIME: (min)	SECTION:	LESSON INSTRUCTIONS:
7:00	Video 5.1	Show video 5.1: The Ten-Second Pro-Life Apologist . While watching, students take notes on their student worksheet.
12:30	Slide Set 5.1	<p>Work through Slide Set 5.1 with students. After showing the examples provided on the slides, lead students in the Partner Practice on Slide Set 5.1.</p> <p>Partner Practice: Choose one student to be Student A and the other to be Student B. Work through the following two scenarios aloud as a practice dialogue. After each scenario, discuss with your partner:</p> <ul style="list-style-type: none"> • Was the clarification question asked clearly? Did the pro-life student clearly demonstrate the difference between biology and philosophy? • Did the pro-life student give the Ten-Second Pro-Life Apologist smoothly without reading off the paper? Practice the Ten-Second Pro-Life Apologist a few more times until you can say it without looking at any notes. <p>Scenario 1: Student A: "A fetus isn't the same as you and me. It's not human; it's just a clump of cells." Student B: (Ask the clarification question to determine whether they are referring to biologically human or philosophically a person like you and me.) Student A: "I mean biology. It's literally not a human!" Student B: (Gives the Ten-Second Pro-Life Apologist)</p> <p>Scenario 2: Student B: "No one knows when life begins!" Student A: (Ask the clarification question to determine whether they are referring to biological life or something more philosophical like a meaningful life or valuable existence.) Student B: "I mean biology. It's literally not alive!" Student A: (Gives the Ten-Second Pro-Life Apologist)</p>

TIME: (min)	SECTION:	LESSON INSTRUCTIONS:
0:30	Video 5.2	Show video 5.2: What Does the Science Say?
15:00	Slide Set 5.2	<p>Divide students into three large groups. If you wish, you can base these groups off of reading level: the Science Text is the most accessible, the Pro-Choice Text is in the middle, and the Medical Testimony Text is the most challenging.</p> <p>Each group has seven minutes to read and take notes on their text in the respective graphic organizer. We recommend that you print the graphic organizers separately from the student worksheet. Then, each group takes two minutes to verbally summarize their text to the other two groups. If you have a large class size, you can divide students into small groups of three or six; in each small group, one or two students were originally from each larger group. Further instructions are available on Slide Set 5.2.</p> <p>Note: All direct links are also available at EqualRightsInstitute.com/whatdoesthesciencesay</p> <p>The Science Text Visit the link above or scan the QR code to the left. Read the entire article entitled <i>"What makes something living?"</i></p> <p>The Pro-Choice Text Visit the link above or scan the QR code to the left. Read the PDF page 17 through half of page 20: the section entitled <i>"Abortion doctors and proponents of abortion rights commonly admit fetuses are human beings."</i></p> <p>The Medical Testimony Text Visit the link above or scan the QR code to the left. Read the PDF page 7 through the bottom of page 9: the section entitled <i>"IV. The Scientific Question: When Does Human Life Begin"</i></p>
4:00	Video 5.3	Show video 5.3: Living, Human Organism. While watching, students take notes on their student worksheet.
5:00	Video 5.4	Show video 5.4: Biology in Dialogue
2:00	Slide Set 5.4: Scripted Practice	Lead students in Scripted Practice on Slide Set 5.4. Choose one student to be pro-life (PL) and the other to be pro-choice (PC). Read the script aloud to practice explaining the scientific truths about the unborn.

TIME: (min)	SECTION:	LESSON INSTRUCTIONS:
14:00	Slide Set 5.4 Continued: Formative Assessment	<p>In pairs, students try putting Trot Out a Toddler and the Biological Evidence together. Choose one student in each pair to be pro-life (PL) and the other to be pro-choice (PC). Use the outline below to guide them through improvising a dialogue about abortion.</p> <p>PC: “There are too many women and children in poverty. We need abortion so that women can break out of the cycle of poverty and there aren’t more children born into poverty than we already have!”</p> <p>PL: Remember the outline of Trot Out a Toddler:</p> <ol style="list-style-type: none"> 1. Affirm the Concern 2. Brace Them for the Weird Question 3. Create a Parallel Situation 4. Describe the Logic <p>PC: “Yeah, but the toddler and the fetus are not the same thing! A toddler is alive and literally here, but no one knows when life begins!”</p> <p>PL: Remember the outline of giving biological evidence:</p> <ol style="list-style-type: none"> 1. Ask the clarification question: Do they mean biological life or something more philosophical (like when a valuable person starts to exist)? If they mean biology... 2. Give the 10-second pro-life apologist 3. If they are unconvinced, give further reasons why the unborn is alive, human, and an organism. <p>After the dialogue, each pair makes and turns in an audio recording of an at least three-minute conversation between them discussing how the dialogue went. With their partners, they reflect on:</p> <ol style="list-style-type: none"> 1. Did the dialogue feel natural? What could the pro-life person have done to make the dialogue feel more natural? 2. What practical dialogue tips did you notice the pro-life person use in the dialogue? 3. Did the pro-choice person feel that their concerns were affirmed and their former ideas about biology adequately addressed? Why or why not?

LESSON 5

STUDENT WORKBOOK



Video 5.1: The Ten-Second Pro-Life Apologist

NOTES WHILE I WATCH:

The Clarification Question:

- If someone says “the embryo isn’t human,” the first thing I need to do is _____.
- When pro-choice people say “the embryo isn’t human,” they often do believe that the embryo is _____, but they don’t think it’s a person like you and I; they don’t think it has _____.
- So, the very first thing we need to clarify in a conversation is whether we’re talking about biological humanness or philosophical personhood.

The Soundbite (Ten-Second Pro-Life Apologist):

“Often when a pro-choice person says no one knows when life begins, they haven’t thought a lot about this issue before except that abortion should obviously be a woman’s right. And then they found out that you were pro-life, and they started saying things, and then they said something kind of silly, like the embryo isn’t alive. It might be that the Ten-Second Pro-Life Apologist is just enough information to get them to redirect onto a much more interesting part of the abortion debate, like who should have rights and why people should have them.”

In order to effectively deliver the Ten-Second Pro-Life Apologist, there are a few key points you need to hit:

- It seems like it’s growing = alive
- Two human parents = human
- All living humans like you and me are valuable and have an equal right to life.
- What do you think?



Video 5.3: Living, Human Organism

Memorize these three biological characteristics of the unborn child:

1. The unborn is living.
2. The unborn is human.
3. The unborn is whole.

NOTES WHILE I WATCH:

The unborn is living.

The unborn is alive because it has the characteristics of living things:

- It grows _____,
- It metabolizes _____,
- And it reacts to _____.
- If something has these three things, whether it is alive or not is not controversial. An embryo from the moment of fertilization is definitely alive.

The unborn is human.

The unborn is biologically human because:

- When two living things of the same species mate, their offspring _____.
- This means that anything with two human parents is a _____!
- The unborn also has uniquely human _____.

The unborn is whole.

- The unborn is not merely a part of a body like a skin cell or a sperm cell; it is a whole organism with its own parts.



Lesson 5: The Biological Case for the Unborn

NAME: _____

DATE: _____

- Pro-choice people seem to think of human development like a _____.
- But humans aren't constructed like that—they develop themselves _____.
- Humans are more like a _____.
- Nothing is added to the unborn from the time of its fertilization except adequate _____ and a proper _____, which are the same two things you and I need.



Video 5.4: Biology in Dialogue

As you listen to the practice dialogue in the video, take note of the basic outline of the conversation:

1. Ask the clarification question: Do they mean biological life or something more philosophical (like when a valuable person starts to exist)? If they mean biology...
2. Give the 10-Second Pro-Life Apologist.
3. If they are unconvinced, give further reasons why the unborn is alive, human, and a whole organism.



Lesson 5:
The Science Text
Graphic Organizer

NAME: _____

DATE: _____



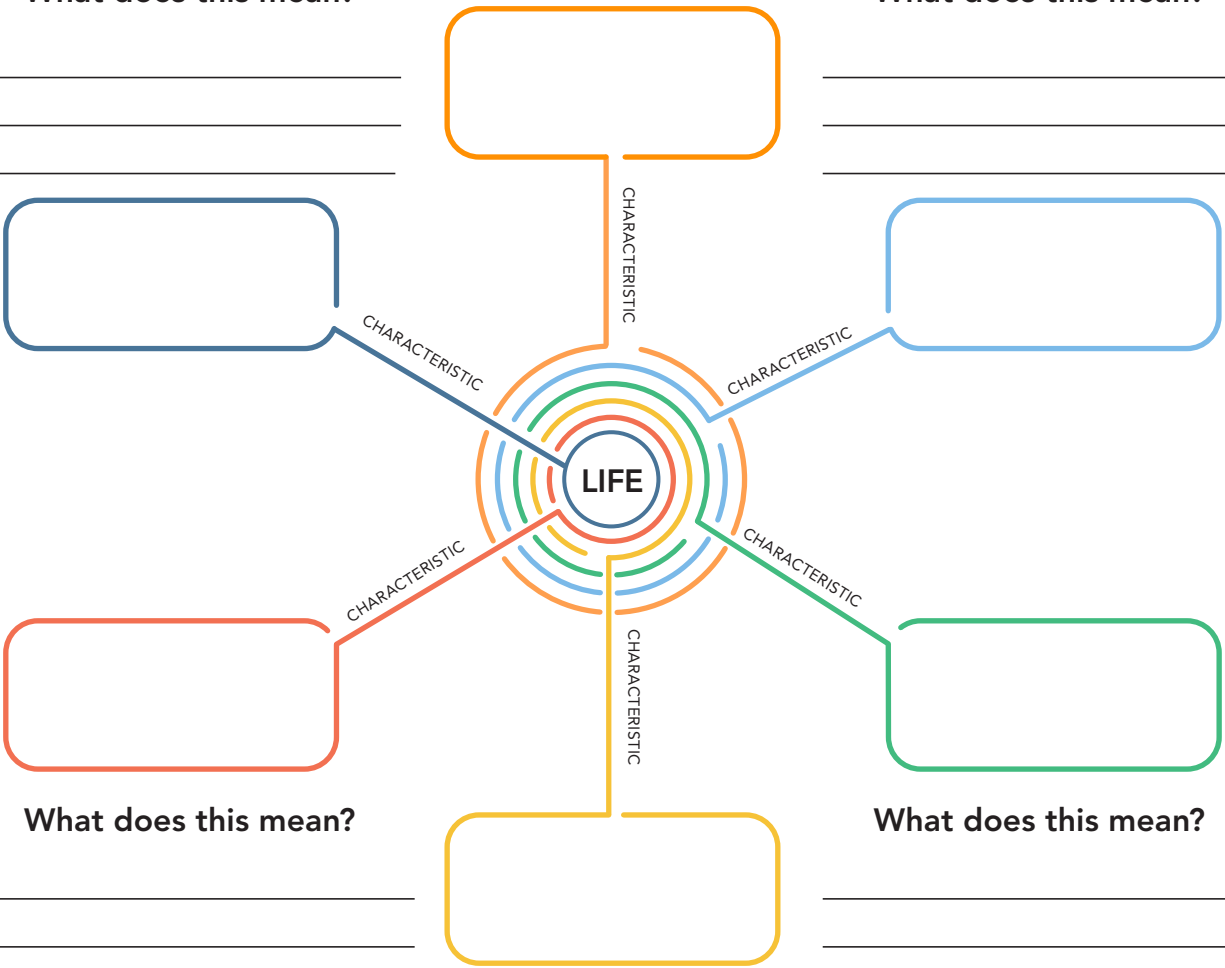
Visit the following link or scan the QR code to read the article [What Makes Something Living?](#) (also available on [our website here](#)).

As you read, take notes on your text in the graphic organizer below.

What does this mean?

What does this mean?

What does this mean?



What does this mean?

What does this mean?

What does this mean?



Lesson 5: The Pro-Choice Text Graphic Organizer

NAME: _____

DATE: _____



Visit the following link or scan the QR code to read the [Supreme Court Amicus Brief - Gee](#) (also available on [our website here](#)).

Read the PDF page 17 through half of page 20: the section entitled “*Abortion doctors and proponents of abortion rights commonly admit fetuses are human beings.*”

As you read, take notes on your text in the graphic organizer below.

	Who are they? What do they do? Why would they be considered an “expert”?	What do they say about the biology of abortion and/or what happens in an abortion?
Dr. Leroy Carhart		
Dr. Curtis Boyd		
Peter Singer		
Dr. Alan Guttmacher		

List at least one alternative theory for the biology of the unborn.	
Why doesn't this theory make sense?	



Lesson 5: The Medical Testimony Graphic Organizer

NAME: _____

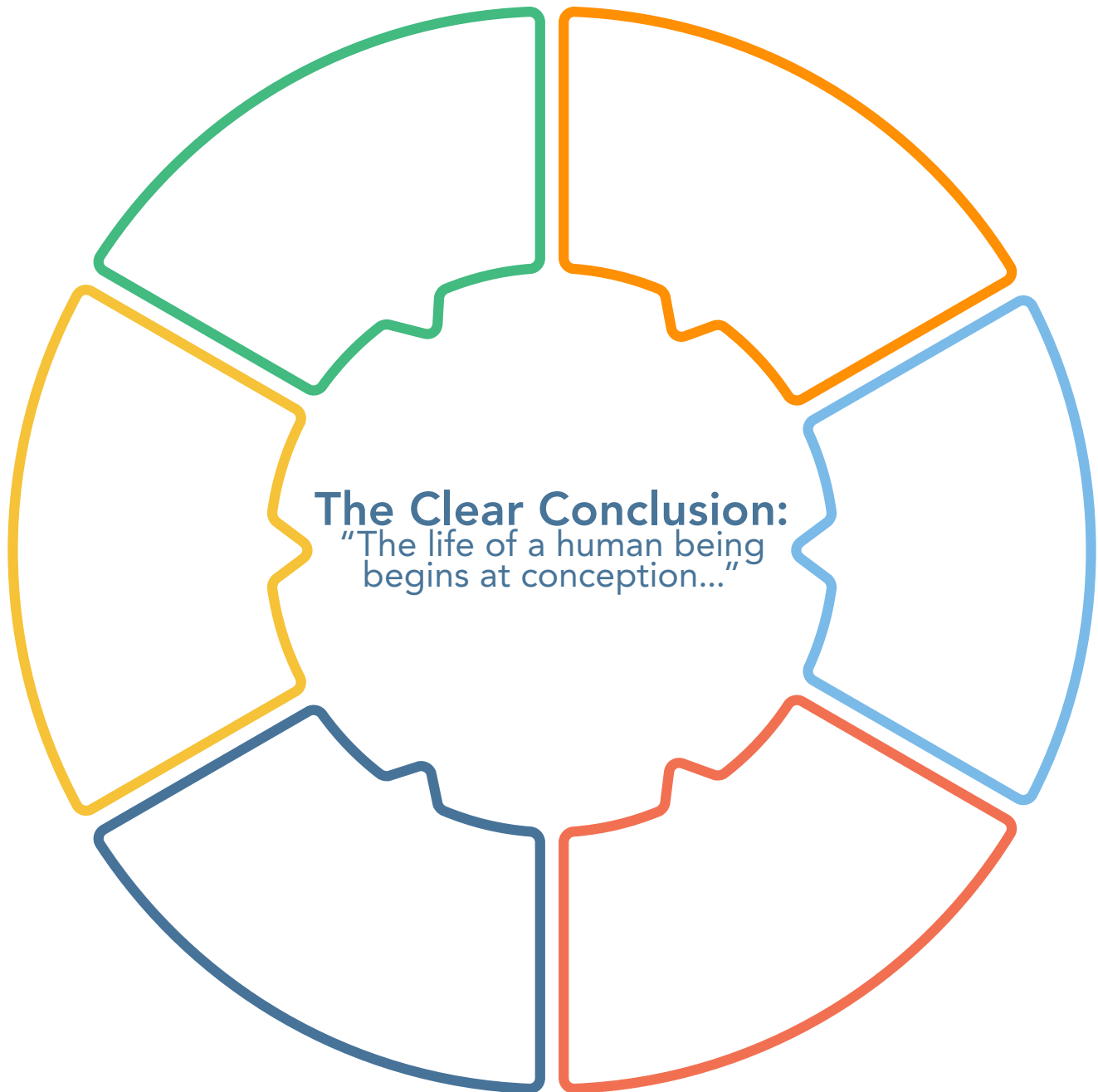
DATE: _____



Visit the following link or scan the QR code to read the [The Human Life Bill](#) (also available on [our website here](#)).

Read the PDF page 7 through the bottom of page 9: the section entitled *“IV. The Scientific Question: When Does Human Life Begin”*

As you read, take notes on your text and fill in the graphic organizer with examples of scientific facts that support The Clear Conclusion.



LESSON 5



ANSWER KEY



Video 5.1: The Ten-Second Pro-Life Apologist

NOTES WHILE I WATCH:

The Clarification Question:

- If someone says “the embryo isn’t human,” the first thing I need to do is ask a clarifying question.
- When pro-choice people say “the embryo isn’t human,” they often do believe that the embryo is scientifically human, but they don’t think it’s a person like you and I; they don’t think it has serious moral status and equal rights.
- So, the very first thing we need to clarify in a conversation is whether we’re talking about biological humanness or philosophical personhood.

The Soundbite (Ten-Second Pro-Life Apologist):

“Often when a pro-choice person says no one knows when life begins, they haven’t thought a lot about this issue before except that abortion should obviously be a woman’s right. And then they found out that you were pro-life, and they started saying things, and then they said something kind of silly, like the embryo isn’t alive. It might be that the Ten-Second Pro-Life Apologist is just enough information to get them to redirect onto a much more interesting part of the abortion debate, like who should have rights and why people should have them.”

In order to effectively deliver the Ten-Second Pro-Life Apologist, there are a few key points you need to hit:

- It seems like it’s growing = alive
- Two human parents = human
- All living humans like you and me are valuable and have an equal right to life.
- What do you think?



Video 5.3: Living, Human Organism

Memorize these three biological characteristics of the unborn child:

1. The unborn is living.
2. The unborn is human.
3. The unborn is whole.

NOTES WHILE I WATCH:

The unborn is living.

The unborn is alive because it has the characteristics of living things:

- It grows through cellular reproduction,
- It metabolizes food for energy,
- And it reacts to stimuli.
- If something has these three things, whether it is alive or not is not controversial. An embryo from the moment of fertilization is definitely alive.

The unborn is human.

The unborn is biologically human because:

- When two living things of the same species mate, their offspring will be a member of the same species.
- This means that anything with two human parents is a human!
- The unborn also has uniquely human DNA.

The unborn is whole.

- The unborn is not merely a part of a body like a skin cell or a sperm cell; it is a whole organism with its own parts.

- Pro-choice people seem to think of human development like a construction project.
- But humans aren't constructed like that—they develop themselves from within.
- Humans are more like a polaroid picture.
- Nothing is added to the unborn from the time of its fertilization except adequate nutrition and a proper environment, which are the same two things you and I need.



Video 5.4: Biology in Dialogue

As you listen to the practice dialogue in the video, take note of the basic outline of the conversation:

1. Ask the clarification question: Do they mean biological life or something more philosophical (like when a valuable person starts to exist)? If they mean biology...
2. Give the 10-Second Pro-Life Apologist.
3. If they are unconvinced, give further reasons why the unborn is alive, human, and a whole organism.



Visit the following link or scan the QR code to read the article [What Makes Something Living?](#) (also available on [our website here](#)).

As you read, take notes on your text in the graphic organizer below.

What does this mean?

Organized, coordinated
structures of one or more cells

What does this mean?

Capturing and processing an
energy source - like the chemical
energy in food molecules

**Energy
Processing**

What does this mean?

Able to respond to diverse
stimuli, like moving towards or
away from chemicals or light

**Response to
Stimuli**

**Homeostasis
and Regulation**

What does this mean?

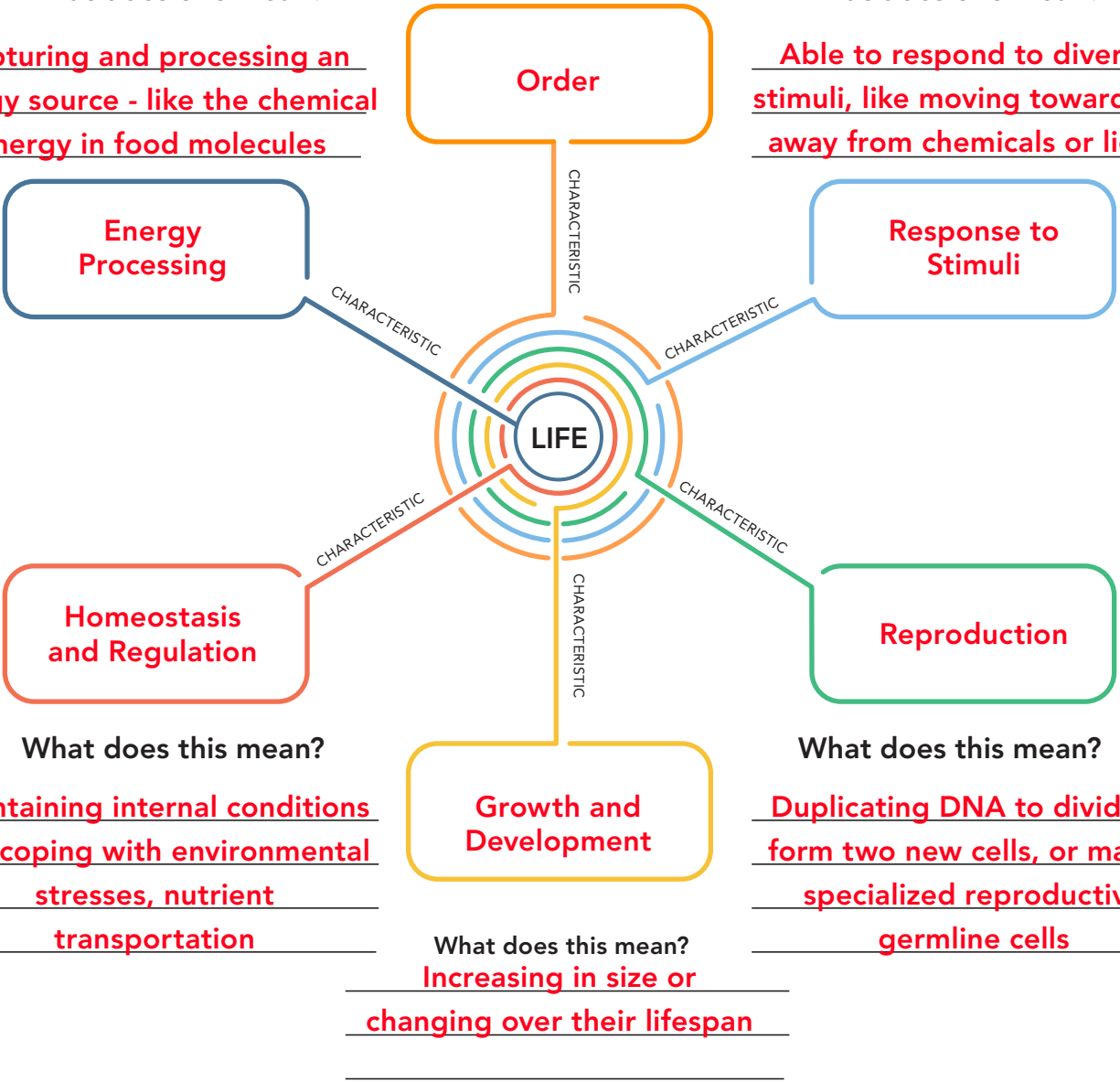
Maintaining internal conditions
and coping with environmental
stresses, nutrient
transportation

What does this mean?

Duplicating DNA to divide to
form two new cells, or making
specialized reproductive
germline cells

What does this mean?

Increasing in size or
changing over their lifespan





Visit the following link or scan the QR code to read the [Supreme Court Amicus Brief - Gee](#) (also available on [our website here](#)).

Read the PDF page 17 through half of page 20: the section entitled “*Abortion doctors and proponents of abortion rights commonly admit fetuses are human beings.*”

As you read, take notes on your text in the graphic organizer below.

	Who are they? What do they do? Why would they be considered an “expert”?	What do they say about the biology of abortion and/or what happens in an abortion?
Dr. Leroy Carhart	an abortion doctor, part of the case <i>Gonzales v. Carhart</i>	called the fetus a baby, agreed abortion kills a baby
Dr. Curtis Boyd	an abortion doctor	agreed that abortion is killing
Peter Singer	abortion rights supporter and ethicist	says an embryo from the first moments of its existence is a human being
Dr. Alan Guttmacher	former Planned Parenthood president and namesake of the Guttmacher Institute	says man starts life as an embryo

List at least one alternative theory for the biology of the unborn.	Example: a human zygote cannot be considered a human individual because it is physiologically dependent on another human
Why doesn't this theory make sense?	Example: that theory rejects the humanity of conjoined twins who are physiologically dependent on each other's bodies for survival



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Read the PDF page 7 through the bottom of page 9: the section entitled “IV. The Scientific Question: When Does Human Life Begin”

As you read, take notes on your text and fill in the graphic organizer with examples of scientific facts that support The Clear Conclusion.

