

Guess How Old **(7th through 12th grade)**

Objective: To show students pictures of human development within the womb and provide them with the evidence that the unborn are human beings

Audience: 7th through 12th grades

Time Needed: Approximately 30 minutes

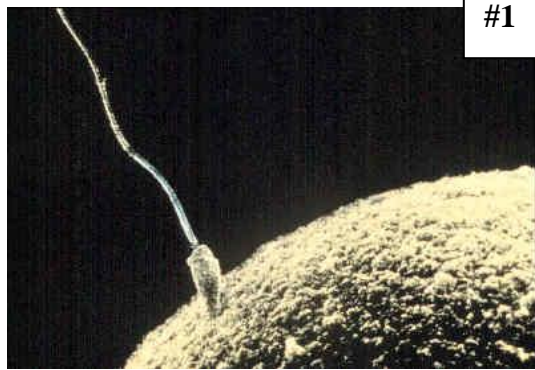
Materials: *Guess How Old* Handout, Pens/Pencils

Teaching Instructions: Before giving students the handout, on the board, define the words “zygote,” “embryo,” “fetus,” and “baby.” Explain that these terms are used to define different stages of our human development just like the terms “toddler,” “child,” “teen,” and “adult.” Once students have an understanding of the words, have them get in pairs or by themselves, fill in the handout. When they are finished, go over the answers with them. As you go through each answer, ask the students what human features or facts stand out at each stage of the development. Remind them that this is how they looked at this stage of their development.

Guess How Old Grades 7-12 and Adults

Unborn children are human beings developing into their fully-grown selves.
See how you looked when you were at these stages in your human development!!

Directions: Below are pictures and descriptions of a baby within a mother's womb. Look at each picture and read each description, and on the line in the box next to it, guess what age the baby is. Number one is given since it does not include a number.



#1

#1. Sperm
entering
egg just
prior to
conception

Conception

As early as two hours after intercourse, the man's sperm reaches the woman's ova (egg) and begin to drill through the shell. Once one of the sperm penetrates the cell wall of the egg, it changes composition, and no more sperm can pass through. 20 hours after intercourse the 23 chromosomes of the sperm and the 23 chromosomes of the ova combine to create a new, genetically distinct, human being.

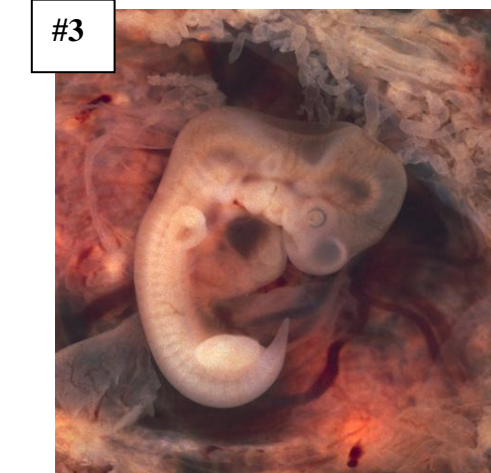


#2

#2. _____
day old
embryo

0-2 Weeks Old

The single celled child, or *zygote*, soon divides into a 16-cell *morula* (mulberry) and then a 100-celled *blastocyst*. At this stage the unborn child is called an *embryo*, and it continues down the fallopian tube to the uterus. Usually the embryo implants in the "ceiling" of the uterus and an intense exchange of hormones and chemicals occurs between the embryo and its mother, which can be detected with a pregnancy test.

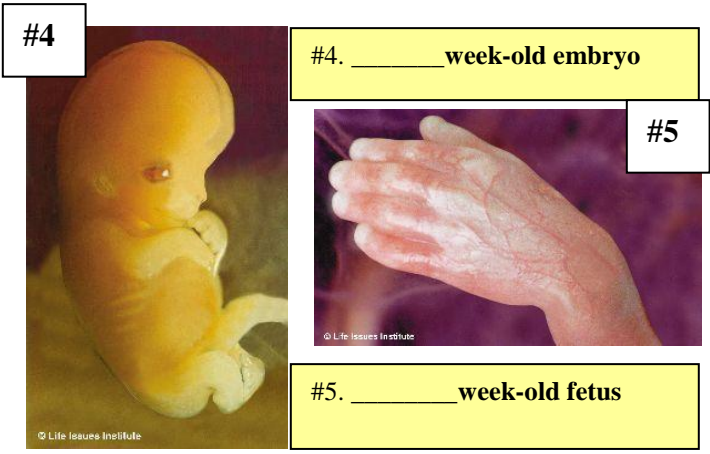


#3

#3. _____
week-old
embryo

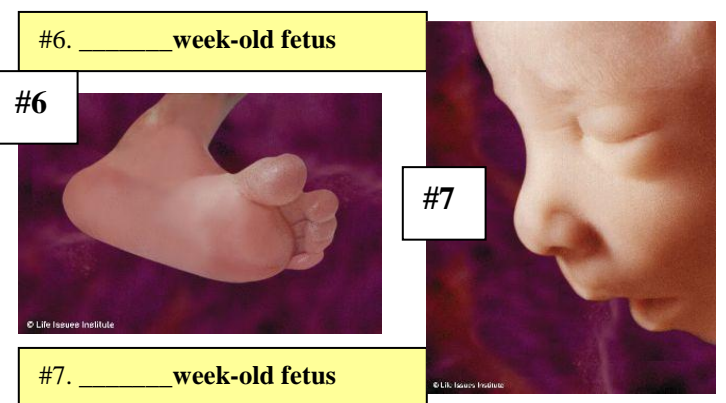
2-6 Weeks Old

The unborn child now develops cell layers that will accommodate their future organs. Pictured on the far left is an unborn child whose heart is pumping blood throughout its $\frac{1}{4}$ inch long body. Small buds now form which will eventually become arms and legs. At six weeks the unborn child's heart beats at 140-150 beats per minute while it pumps blood through the $\frac{1}{2}$ inch long body. Surrounded by the amniotic sac, the embryo now has reflexes which function from its nervous system.



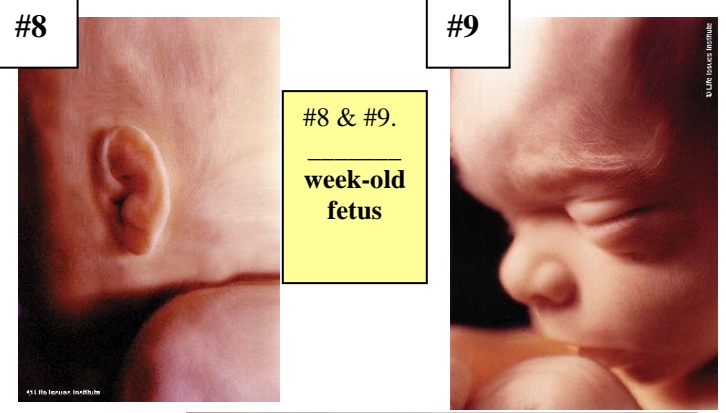
6-12 Weeks Old

At 8 weeks the unborn child is now a *fetus* that is approximately 1.5 inches long. At this point every organ found in a fully-grown human is in place in the fetus just waiting to develop. By 10 and 11 weeks the child's body jerks and moves and even hiccups as its tiny body tests its new environment. The child's yolk sac no longer produces blood cells as the liver and spleen take over this important job.



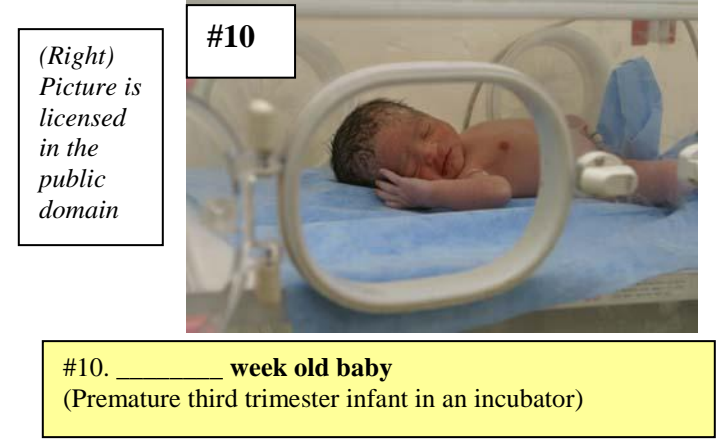
12-18 Weeks Old

By 13 weeks the eye is well developed, and its lid will remain closed for a few months. At fifteen weeks, the child's arms are long enough to grasp one another and fingernails have formed. Indeed, it is now four inches long and weighs four ounces. By early in the fourth month the child can start to hear sounds and its brain can begin to interpret them.



18-24 Weeks Old

At this point the movements of the fetus become strong enough for its mother to feel within her. The child can kick and even perform somersaults. Its body is covered by a fine downy hair, and by 20 weeks it is possible that the child can feel pain and even survive outside of the womb (though this chance is very small and the child usually develops severe complications).



24-36 Weeks Old

24 weeks is the accepted standard of viability, or the time an unborn child has a decent chance of survival outside of the womb. The child is now 9 inches long and weighs two pounds. In addition, the eyes open and become more sensitive to light. By the end of the pregnancy the child is at least a foot long and weighs 6-12 pounds and can grasp firmly. The baby is now ready to enter our world!

Note: The pictures on page one are public domain photographs, the pictures on page two are from the Life Issues Institute, all rights reserved.

Answers for *Guess How Old* for Grades 7-12 and Adult.

1. Conception
2. 8 Days Old
3. 5 Weeks Old
4. 7 Weeks Old
5. 12 Weeks Old
6. 14 Weeks Old
7. 16 Weeks Old
8. 20 Weeks Old
9. 24 Weeks Old (Premature third trimester infant in an incubator)