

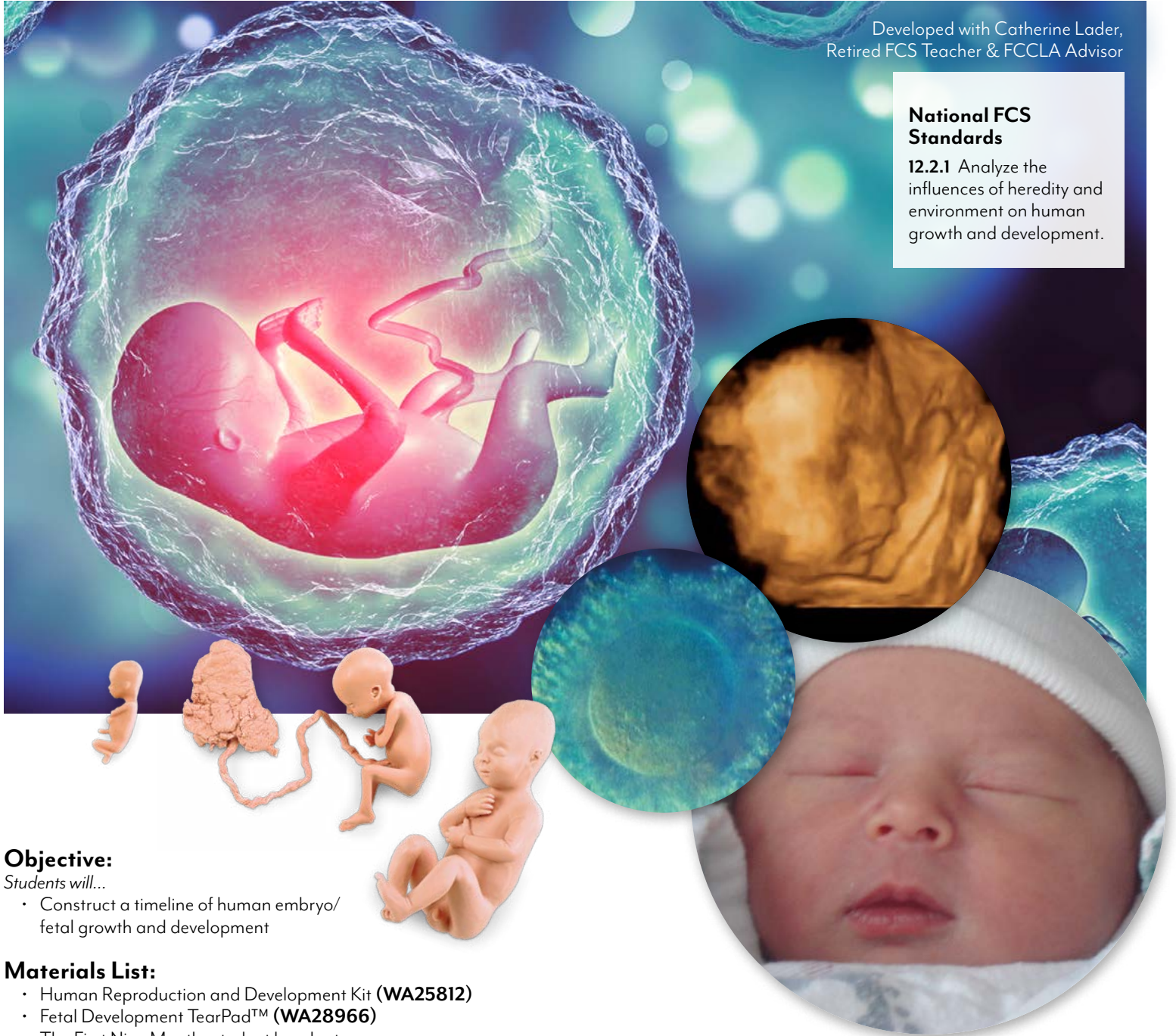
THE FIRST NINE MONTHS

Volume 18 / Middle School

Developed with Catherine Lader,
Retired FCS Teacher & FCCLA Advisor

**National FCS
Standards**

12.2.1 Analyze the
influences of heredity and
environment on human
growth and development.



Objective:

Students will...

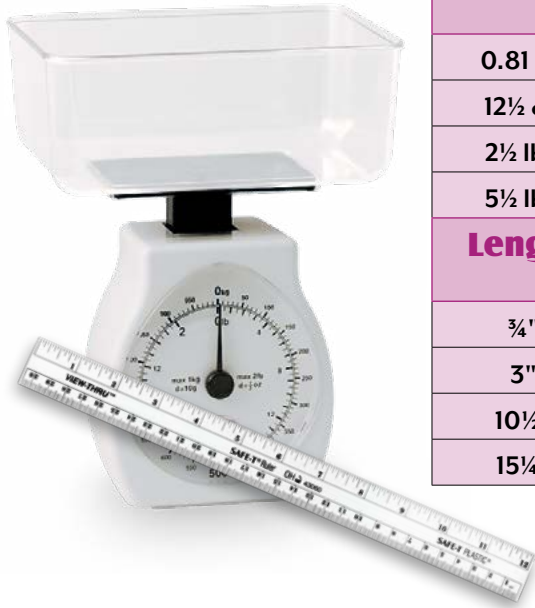
- Construct a timeline of human embryo/
fetal growth and development

Materials List:

- Human Reproduction and Development Kit (**WA25812**)
- Fetal Development TearPad™ (**WA28966**)
- The First Nine Months student handout
- Flexible SAFE-T® Ruler (**TB17801**)
- Analog Scale or Platform Scale
- Glue Stick (**2100118**) or Masking Tape
- Poster Board (**9702906**)
- White Board
- Dry-Erase Markers
- Assorted Human Physiology/Parenting Resources

Introduction (10-15 minutes)

Ask students how many of them have seen a newborn? Have students share how the newborn looked. What characteristics can babies inherit from their parents? What is the average weight and average length of a newborn (7 lbs. and 20")? Next, students will investigate embryo and fetal development. Have students set up a table on paper like what appears on the white board (see next page).

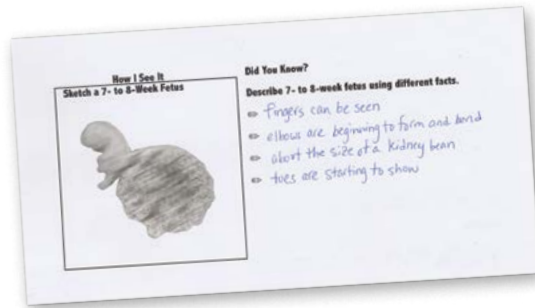
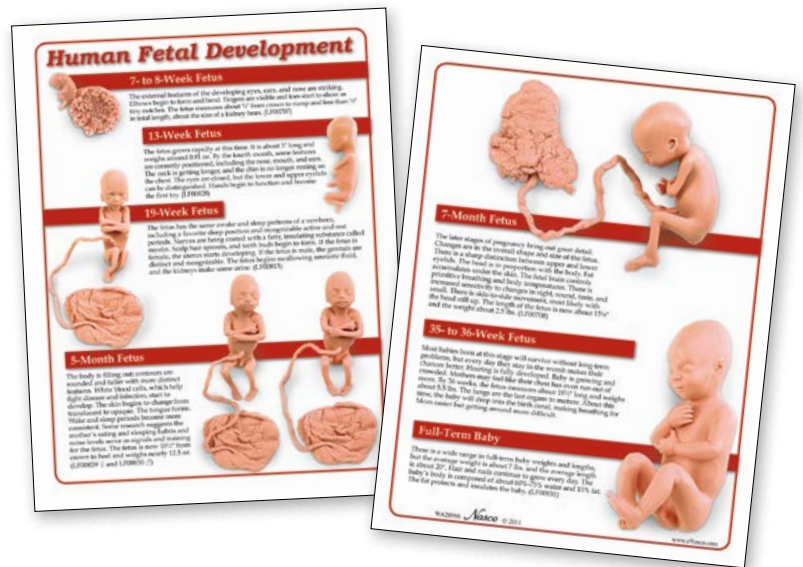


Weight	Object of Similar Weight	Stage of Development (Days & Months)
0.81 oz.		
12½ oz.		
2½ lbs.		
5½ lbs.		
Length	Object of Similar Length	Stage of Development (Days & Months)
¾"		
3"		
10½"		
15¼"		

Students complete the chart by measuring and weighing objects in the classroom to fill in the middle column of the table (the third column will be filled in during Activity 2). Have students work with a partner.

Activity 1 (20-25 minutes)

Distribute pages from the Fetal Development TearPad™. Every small group of students receives one packet of The First Nine Months handouts (4¼" x 5½") developed for this lesson. Each group member is responsible for independently completing one or two handouts by sketching and describing the stage of development on the handout. Resources available include models, transparencies #6-11 from kit, student handouts #5-10 from this kit, and human physiology/parenting resources in classroom.



Activity 2 (10-15 minutes)

Small groups reconvene and verify all handouts are complete. Individuals share their sketches and descriptions with group members. Make a special note of traits that can be inherited. As a group, complete the third column of the table from the lesson introduction.

Conclusion (10-15 minutes)

Each group arranges their handouts to form a timeline from a 20-day embryo to a full-term baby. Attach to poster board or on the wall and add a title. Be ready to share with the class three of the most noticeable physical changes that occur during prenatal development. Discuss why this knowledge of prenatal development would be important to prospective parents. What traits can be inherited from parents? Are there environmental factors that could impact the first nine months of development? If yes, site examples. This sets the stage for the next lesson that focuses on the effect of heredity and environment on human growth and development.

The First Nine Months

As I See It

Sketch a 20-Day Embryo

Check One:

☐ Actual Size

☐ A Sketch

Sketch a 26-Day Embryo

Check One:

☐ Actual Size

☐ A Sketch

Did You Know?

Describe a 20-day embryo using different facts.



Describe a 26-day embryo using different facts.



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The First Nine Months

As I See It

Sketch a 35-Day Embryo

Check One:

☐ Actual Size

☐ A Sketch

Sketch a 63-Day Embryo

Check One:

☐ Actual Size

☐ A Sketch

Did You Know?

Describe a 35-day embryo using different facts.



Describe a 63-day embryo using different facts.



The First Nine Months

How I See It

Sketch a 7-to 8-Week Fetus

Did You Know?

Describe a 7-to 8-week fetus using different facts.



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The First Nine Months

How I See It

Sketch a 13-Week Fetus

Did You Know?

Describe a 13-week fetus using different facts.



The First Nine Months

How I See It

Sketch a 15-Week Fetus

Did You Know?

Describe a 15-week fetus using different facts.



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The First Nine Months

How I See It

Sketch a 5-Month Fetus

Did You Know?

Describe a 5-month fetus using different facts.



The First Nine Months

How I See It

Sketch a 7-Month Fetus

Did You Know?

Describe a 7-month fetus using different facts.



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The First Nine Months

How I See It

Sketch a Full-Term Baby

Did You Know?

Describe a full-term baby using different facts.

