Effects of Fetal Alcohol Exposure



**Lesson Plan Title:**

Pregnancy & Birth Defects

**Subject Area:**

**Recommended course(s):**

Parenting & Child Development

**Aligned to NASAFACS Standards:**

12.1.2 Analyze interrelationships among physical, emotional, social, and intellectual aspects of human growth and development.

12.1.3 Analyze current and emerging research about human growth and development, including research on brain development.

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

15.2.1 Choose nurturing practices that support human growth and development.

15.4.1 Analyze biological processes related to prenatal development, birth, and health of child and mother.

15.4.2 Analyze the emotional factors of prenatal development and birth in relation to the health of parents and child.

**Objectives:**

Understand the effects of alcohol on fetal development.

List the facial features associated with fetal alcohol exposure.

Understand the differences in Fetal Alcohol Spectrum Disorders and their effects on the child.

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| **Materials needed:**  3 eggs  16 ounces white vinegar  3 glasses  4 ounces alcohol (rubbing, denatured, or drinking)  Food coloring  Projector  YouTube access  Optional: individual internet access for students | **Resources:**  <http://www.come-over.to/FASCRC/>  <http://fcsandthensome.blogspot.com/2014/09/fetal-alcohol-syndrome-egg-demonstration.html> |

**Lesson Summary/Outline:**

This lesson demonstrates the harm of alcohol on the developing fetus in a concrete way.

Expected length: Three 45 minute class periods.

24-48 hours before lesson begins, three (or more, in case of accidental breakage) eggs are placed in vinegar to dissolve the shell. The remaining shell does not need to be “rubbed off”, this raises the risk of breaking an egg’s membrane, and the experiment will work sufficiently with a small amount of shell present.

1 class period for the PowerPoint, notes, and starting the experiment

1 class period for the activities

1 class period for evaluating the results

**Motivator/Opening:**

“Do you think it is OK for a pregnant woman to drink alcohol?”

“Well, what if it is only 1 drink?”

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| **Activities:**  **Day 1**  Show PowerPoint presentation, including video  Start experiment as outlined in presentation  **Day 2**  Assign students to take quiz located at <http://come-over.to/multiplechoice/fasquiz1.htm> This is also available in a printable form if you do not have individual computer access.  After the quiz, there is a link to answers with explanations.  At the end of tne answers, instruct students to follow the link to the FAS Simulation Test. This is located at <http://www.come-over.to/FAS/SimTest.htm> and is a short activity that demonstrates how those with FAS experience routine questions.  Third, student should read My Day at School, by a student affected by FAS located at <http://justateacher.hubpages.com/hub/My-Day-At-School-In-the-eyes-of-a-child-with-Fetal-Alcohol-Syndrome>  Lead students to discuss how they think a person affected by FAS feels, and then lead the discussion to include the stigmas that surround FAS. Ask them to question whether or not their own opinions have changed on this disease.  **Day 3**  Break open the 3 eggs and examine.  Reinforce the fact that even if the egg were place back into water, the damage is done. Just as if a woman stopped drinking, the prior alcohol exposure could not be undone.  Give follow up quiz  Have student write reflection on experiment (KWL, exit ticket, etc). | **Assignments:**  **Day 1**  Notes page that follows PowerPoint  **Day 2**  Quiz activity  FAS Simulation Test  My Day at School  **Day 3**  Examine experiment  Give follow up quiz  Write reflection on lesson. |

**Evaluation:**

Give follow up quiz where students will answer questions and draw facial features related to Fetal Alcohol Syndrome.

**Notes:**

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