

Developmental Biology PROJECT

Important dates: Chose project no later than..... March 25
Project Presentations..... June 3

You may work alone or in a group (no larger than 3). Projects will be presented in lab. Your grade will be based on what you turn in.

Choose any **one** of the following projects:

1. Write a **children's story** that depicts one of the developmental process or signal transduction pathway we will discuss this semester. Your task involves two goals: (1) to convey substantial, in-depth developmental process; and (2) to create an attractive, entertaining story that will hold a child's interest. Illustrations and creative naming of characters are an excellent way to convey information about developmental process. If possible, include information on how the developmental process or signal transduction pathway was discovered. I recommend that you design your story to involve a plot with characters. What does NOT work is to simply have a character recite a watered-down lecture about Developmental Biology.
2. Design, produce, and record a **show/skit/play** that depicts one of the developmental process or signal transduction pathway we will discuss this semester. The general goals and recommendations are similar to that of the children's story project (above), except that "sets" (scenery) and design will replace illustrations. You can turn in a DVD, or put it on YouTube.
3. Research and learn something about a medical aspect of developmental biology. Examples include the effects of BPA on development or a folic acid deficiency. Design a *set of materials* that would serve as part of a **public health campaign**. Materials could include informational patient pamphlets, notices to care-givers, posters, billboard messages, etc. At least one of these materials should include information about the developmental defects associated presence/absence of the substance, including an explanation of the normal developmental process and how it is interrupted.
4. **Biology in the News**. Give a short (10 min) presentation on the impact of developmental biology. Using a recent news article (talk to me before you choose) from the mainstream press (Newsweek, CNN.com, US world and News report, Time) or from Biology News Websites (Science Daily: Biology News, Biology News Net) give an overview of the article covering the following areas: a) Background on the area of research (will require additional reading). b) What exciting / troubling new thing was discovered? c) Why is this important to us (why is this a newsworthy result)? d) What might come next?
5. Create a "**Developmental Biology Songbook**". The songbook should include lyrics for at least 3 "songs" each conveying important information about one of the topics discussed this semester. You do not have to compose the music, but, for each song, should design your lyrics to be "sung to the tune of" some very well-known tune (please pick tunes that will be known by all age groups!). The more accurate details in the lyrics the better. Ideally, these songs could be

distributed to future Developmental Biology students, to help them learn complicated lists of details.

6. Write a **song** and **make a video** on a topic discussed this semester. You may use a song you know and change the lyrics to fit your topic. (This is a similar project to #5 but you have to do the audio/video aspect.) The video must be recorded and turned in with the lyrics that accompany it. You may give me a DVD or upload to YouTube.

Additional requirement:

BEFORE the morning of the Lab Project Presentations, you **MUST** upload a paragraph to BrightSpace describing the process (how did you go about it, what was difficult, what did you enjoy, recommendations for next time). You may wish to upload any materials you are planning to show the class here too.