

4-H Embryology in the Classroom Project
 Poster One – Stages of Embryonic Development



Chicken Embryo Development



Hatching eggs.



Infertile, unincubated egg. Blastodisc located on top of yolk appears irregular in shape.



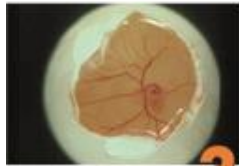
Fertile, unincubated egg. Blastoderm larger, more regular in shape and has a "donut-appearance."



Day 1 "Donut-shape" greatly enlarged and embryo lies within the donut ring.



Day 2 Blood appears as "blood islets" in outer ring of developing embryo.



Day 3 Circulatory system well developed. Formation of appendages.



Day 4 Notice brain to body size relationship.



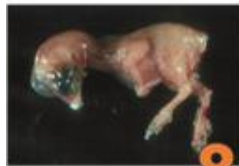
Day 5 Brain continues to develop at rapid rate.



Day 6 Wing development rapid. Development of egg tooth begins.



Day 7 Egg tooth seen on tip of beak. Eyes very conspicuous.



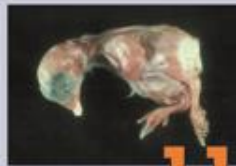
Day 8 Feather tracts seen on the back. Wings, feet, toes well developed.



Day 9 Beginning formation of feathers.



Day 10 Down feathers appear. Hardening of beak and egg tooth begins.



Day 11 Eyelids have overgrown eyes.



Day 12 Calcification of bone started. Toenails and down feathers on neck, thighs and wings present.



Day 13 Appearance of scales on legs. Comb and wattles present.



Day 14 Embryo acquires a more chick-like appearance.



Day 15-19 Embryo grows rapidly assuming hatching position with the head under the right wing and beak toward the air cell. Remaining yolk sac begins entering body cavity.



Day 20 Chick begins pipping through shell.



Day 21 Chicks hatch and dry.