



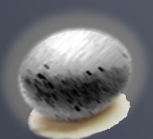
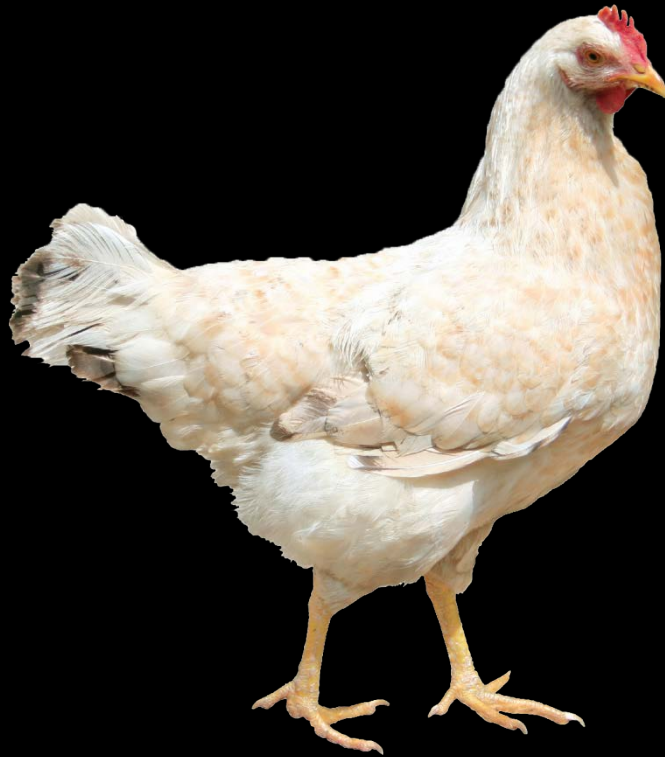
Hatching Science

21 days of discovery



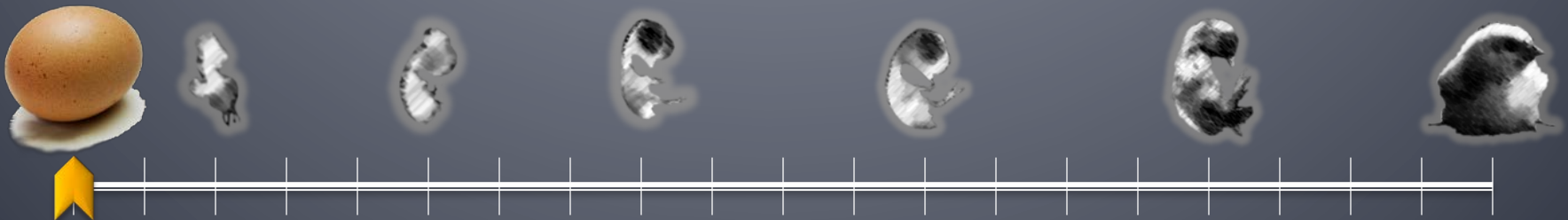
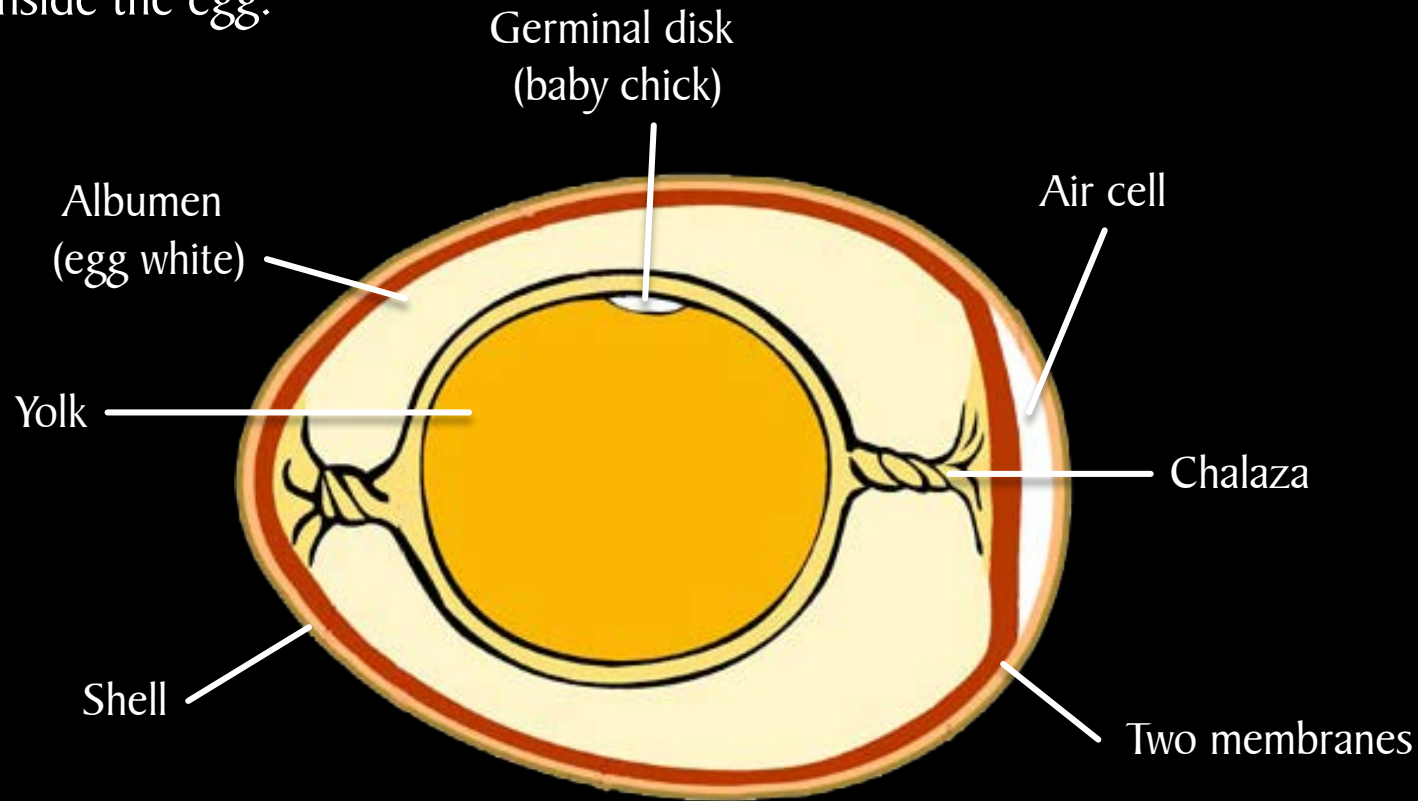
A Brief Egg-splanation

Inside the chicken:



A Brief Egg-splanation

Inside the egg:



A Brief Egg-splanation

Outside the egg:



Days 1 – 4

Little cells make big progress:

Day 1

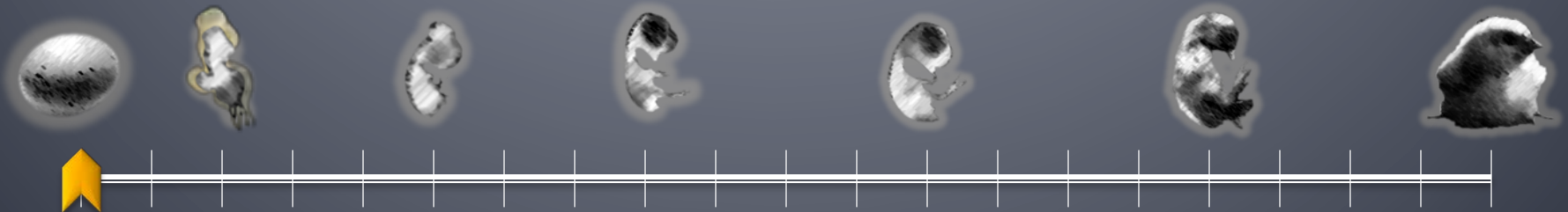
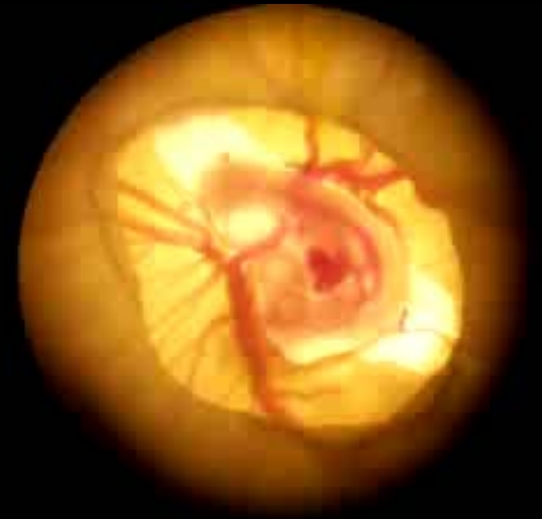
- Cells are already specializing
- Muscle, nerve, and digestive cells appear
- The eyes and blood vessels begin to form

Day 2

- Heart and ears form
- Heart begins to beat

Note: The different parts of the chick develop at the same time.

- Blood and blood vessels
- Brain, eyes and digestive system, etc.



Days 1 - 4

Little cells make big progress:

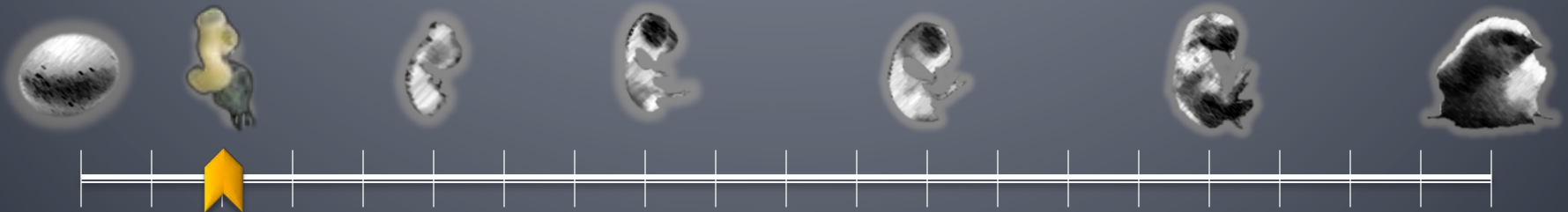
Day 3

- Distinguishable head and tail
- Leg and wing buds can be seen
- Specialized cells begin to form tongue, liver, kidneys and lungs
- More blood vessels



Day 4

- Toes begin to form
- Mostly present, but tiny
- Embryo separates from yolk



Days 5 – 8

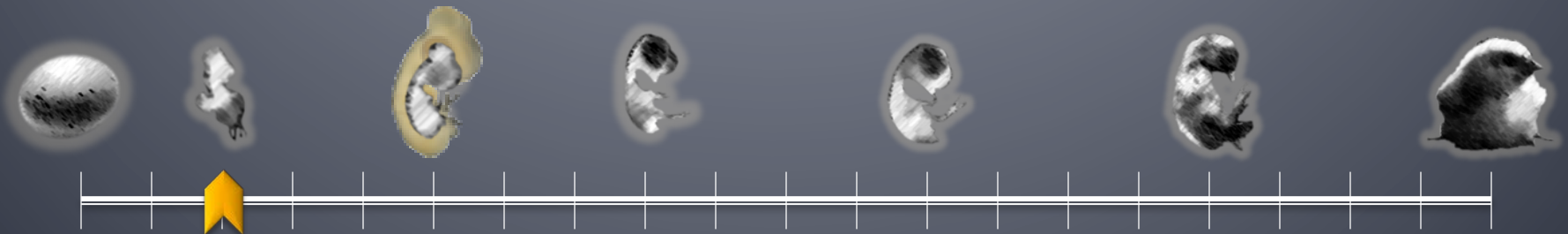
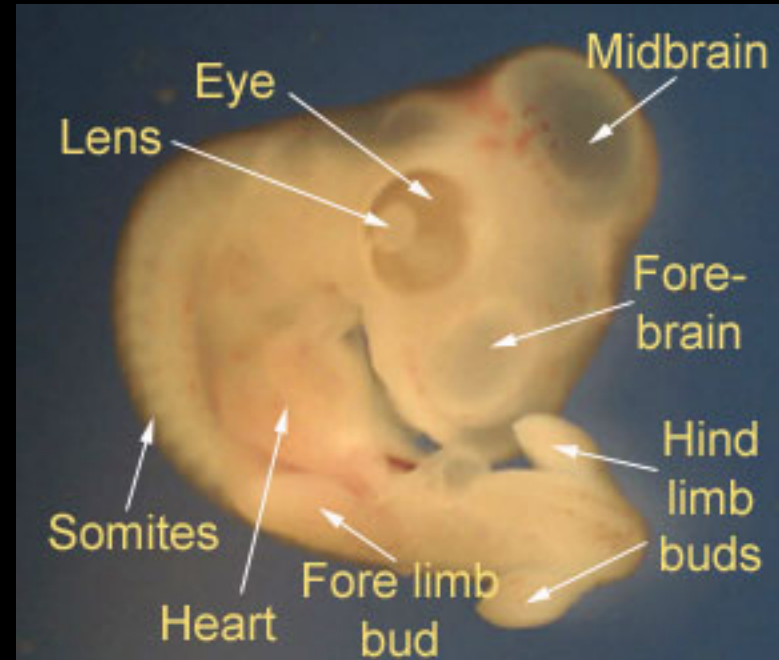
The formative days:

Day 5

- Reproductive organs develop
- Leg bones form

Day 6

- Beak becomes visible
- Wing bends at the elbow
- Intestines begin to loop



Days 5 – 8

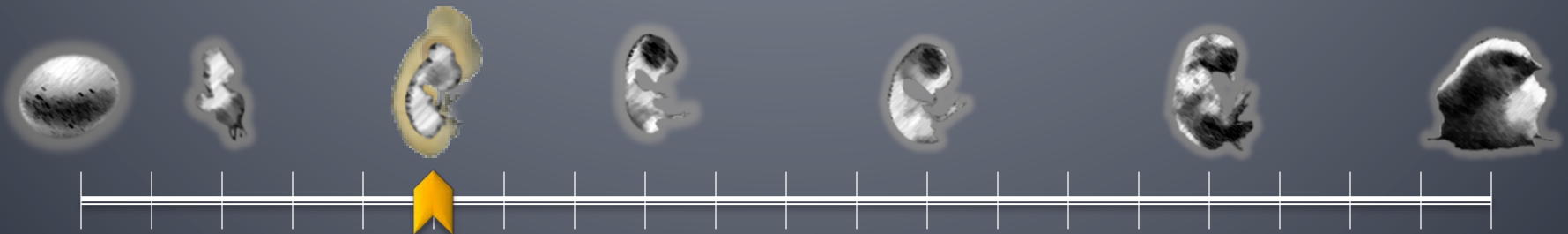
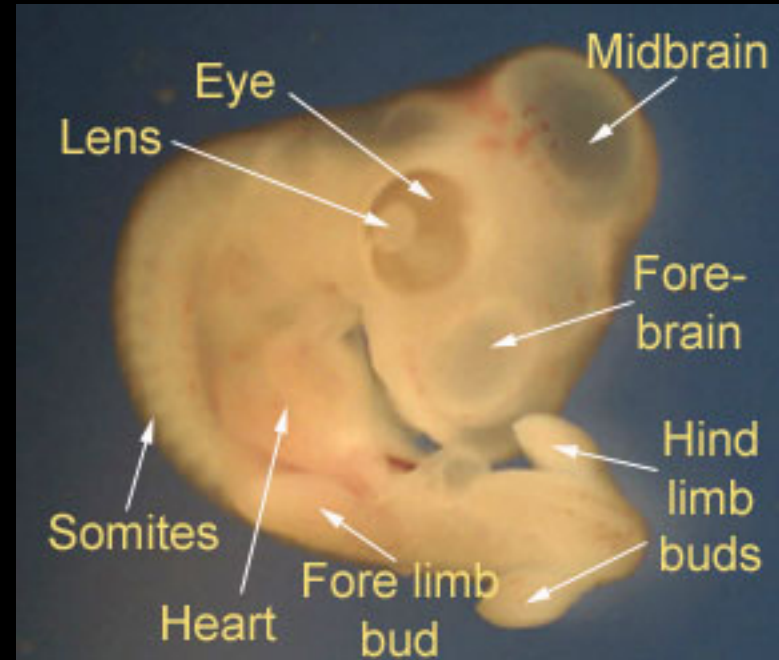
The formative days:

Day 7

- Feather buds appear
- Eye develops rapidly
- Knees bend

Day 8

- More feather buds appear
- Egg tooth forms



Days 9 – 11

Time to get moving:

Day 9

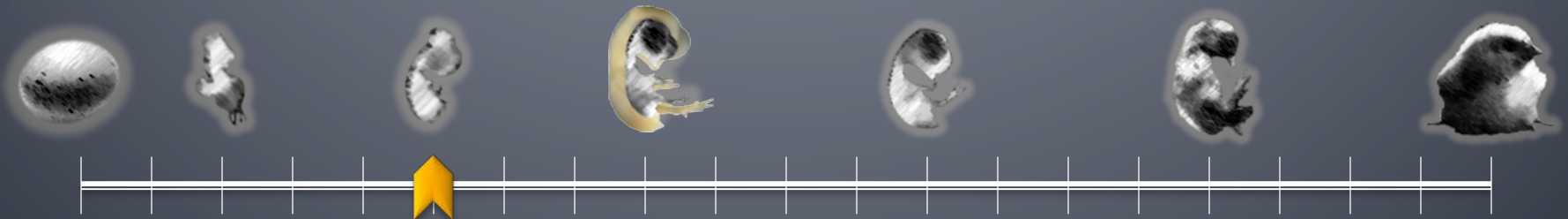
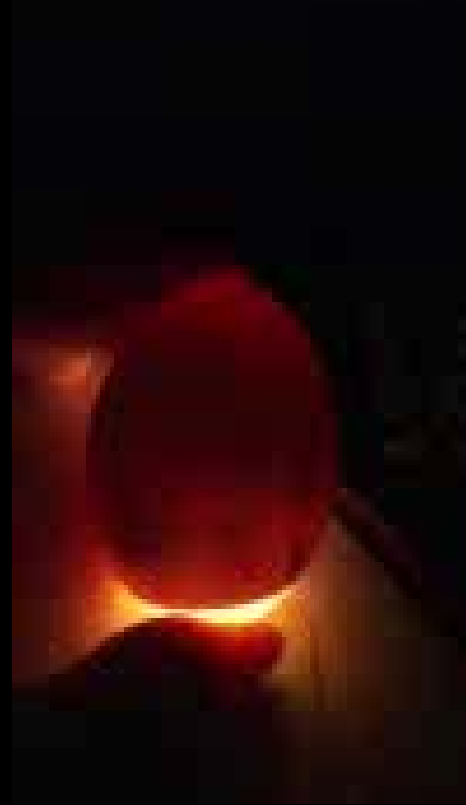
- Eyelids and kneecaps develop
- Chick moves more
- Yolk is noticeably smaller

Day 10

- Chick moves even more
- Refined features develop

Day 11

- More movement
- Beak and bones harden



Days 12 – 15

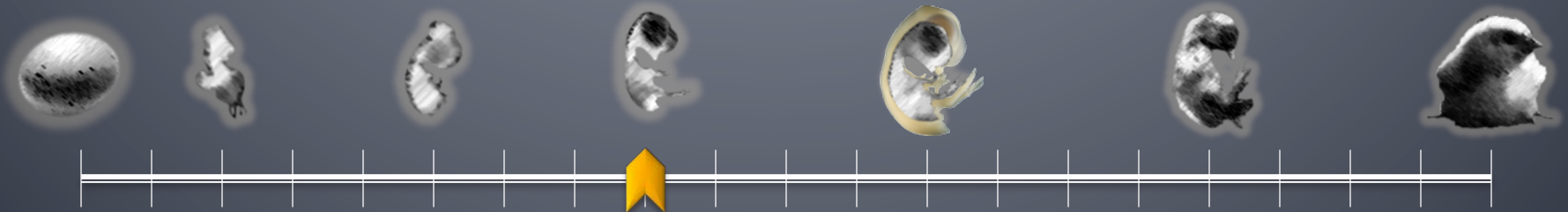
Bigger and stronger:

Day 12

- Development continues
- Scales appear on legs

Day 13

- Bones continue to harden
- Wishbone is formed



Days 12 – 15

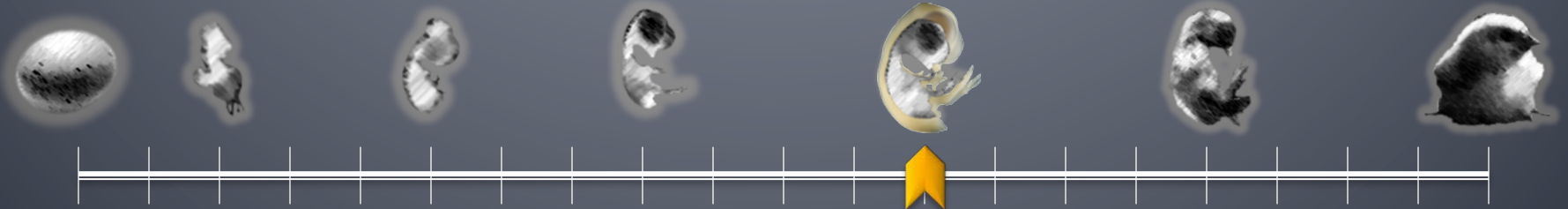
Bigger and stronger:

Day 14

- Movement slows
- Skull hardens
- Yolk is much smaller

Day 15

- Scales, claws, and beak become firm
- Growth continues
- Organ development continues



Days 16 – 18

The waiting game:

Day 16

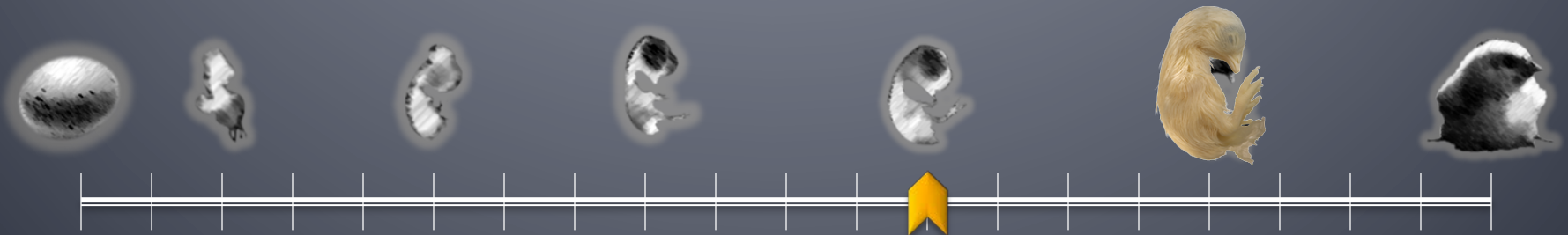
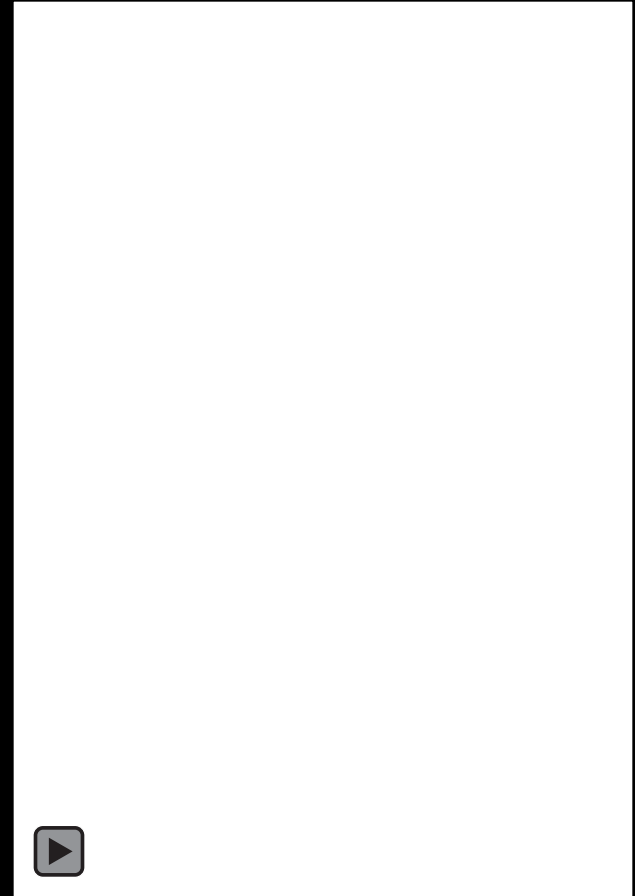
- Feathers cover the whole body
- Development continues (bones are almost fully hardened)

Day 17

- Chick's beak turns toward air cell

Day 18

- More development... almost ready!



Days 19 – 21

Countdown to hatch:

Day 19

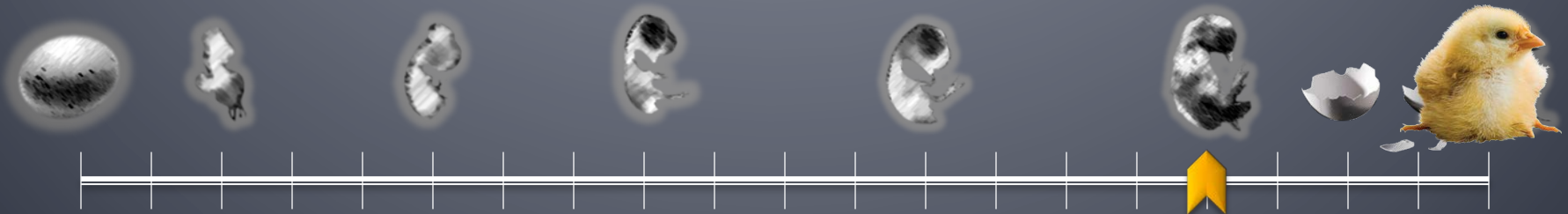
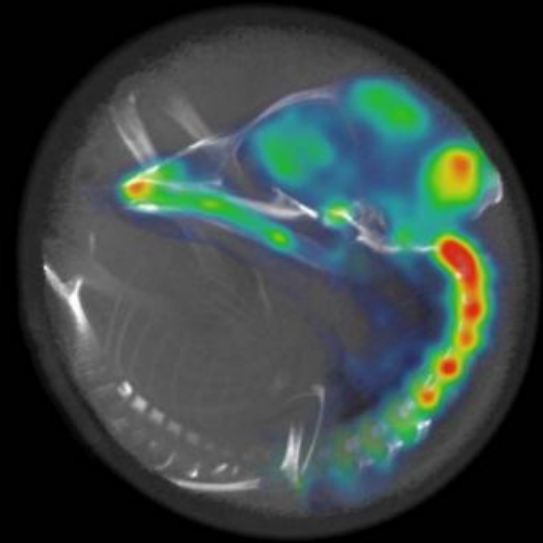
- It can breathe!

Day 20

- Lungs at 100%

Day 21

- Get ready... Today is the day!



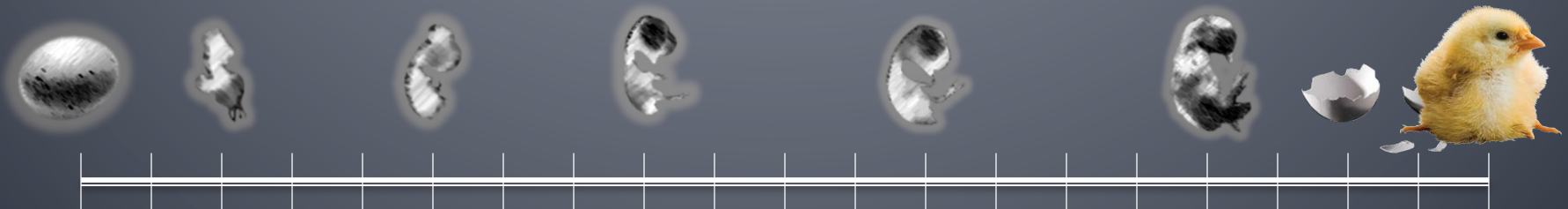
Time for the Egg-citement!

How it hatches:

It's not easy!

- First it must peck shell open
- 3-8 hour rest
- Turns and pecks around the inside of the egg (2-5 hours)
- Pushes and pushes, until...

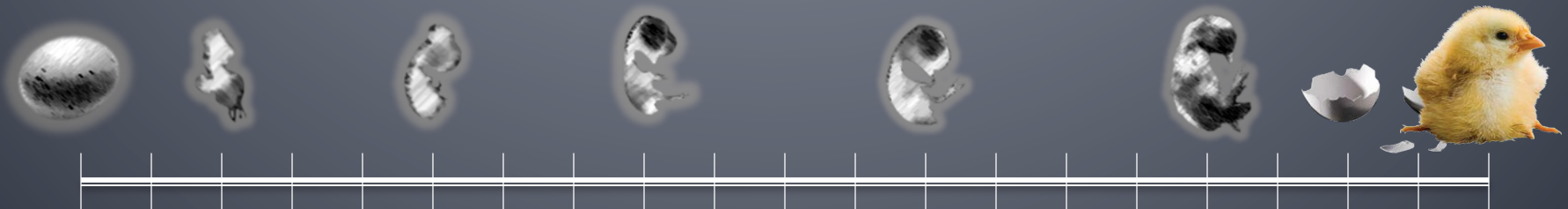
It finally breaks free!



It's awful cute, but now what?

After a chick is hatched, it needs:

- Rest!
- Warmth and humidity
- Food and water
- Room to exercise





Hatching Science

The End

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Agriculture in the Classroom

Special thanks to:

Chickscope

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