

# miniHatch INFOSERIES

## CANDLING EGGS



You can monitor egg growth and development by lighting up the inside of your eggs!

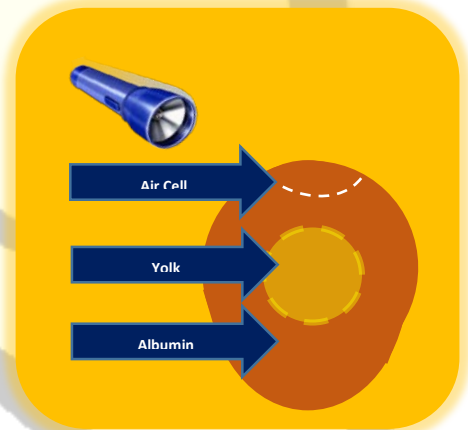
Monitoring egg development is important. It can alert us to development issues, mechanical failure, damaged eggs or other problems. Use this activity frequently to monitor the development of your eggs.

### Materials:

- Strong Flashlight or Candler
- Hatching Eggs
- Incubator & Supplies

### Procedure:

1. Remove one egg from your incubator.
2. Holding the large (round) end of the egg upright, using your opposite hand, bring the light to the top of the egg.
3. Turn on the light and observe the inside of the egg. Page 2 of this document shows what you should see in a fertile and properly developing egg.
4. Replace the egg and remove the next egg.
5. Go through this process, checking each egg for development.
6. Bring in a fresh egg from home for comparison and compare.
7. Have students draw what they see at each stage. Compare them at each interval, highlighting any visible changes in the embryo.



### Helpful Hint...

Dark shell colour can be difficult. Try the following tips:

- Use a room that is as dark as possible.
- Look for the air cell first. It should appear lighter than the rest of the egg.
- Move the light to the back of the egg, watch for the dark mass near the centre.
- Always orient the egg with the large end up.

Part	Function	Location
<b>Air Cell</b>	Location of gas exchange for embryo.	Large end of egg, inside shell.
<b>Yolk</b>	Nourishment for embryo.	Centre of egg, held in place by chalazae.
<b>Albumin</b>	Protection, insulation and nourishment for the embryo.	Surrounds yolk, between yolk and inner membrane.
<b>Shell</b>	Protection for the embryo and provided egg structure.	Surrounds the egg.
<b>Blastoderm</b>	Site of fertilization and initial development.	Located on the yolk's surface.
<b>Chalazae</b>	Maintains internal structure.	Connects yolk at polar ends of the egg.

*Remember, always wash your hands and clean all surfaces that contact poultry products!*