

Birds

Investigation Data Sheet



Hatch And Raise Young Chickens

All birds hatch from eggs. It is important that birds keep their eggs warm if they want their young to survive. Therefore, special equipment is needed when raising chickens in the classroom. An egg incubator is a box that can be kept warm and humid so that the eggs inside can hatch. A brooder is another warming box for keeping the chicks after they hatch.

Objective

Use an incubator and brooder to raise chickens.

Materials

- an egg incubator
- a thermometer
- a brooder
- chicken feed
- some fertile chicken eggs
- a small, shallow container for water
- a small container for chicken feed

Visit a farm, pet store or nature center for help gathering these materials.

Safety Notice: All applicable laboratory safety rules must be followed. Students should not perform any experimental activity without the teacher's supervision and express permission. Students must follow safety guidelines and wear appropriate protective gear.

Procedure

1. Set up your incubator in a draft-free, shady area. Place a thermometer in the incubator so that you can monitor its temperature. The temperature of the incubator should be about 100-101°F (about 38°C). Pour a small amount of water onto the floor of the incubator to help keep the environment within it moist and humid. Preheat the incubator for about two days before placing the eggs inside.

2. After two days of preheating the incubator, carefully place the fertile chicken eggs inside. The eggs will hatch in about 21 days. For the first 18 days, the eggs must be turned three times a day. (Some incubators have automatic egg turners that can help you with this.) Turning the eggs ensures that the chickens will develop properly.
3. On the nineteenth day, stop turning the eggs. Leave the incubator closed to maintain a humid environment.
4. On the twenty-first day, keep a close eye for signs of hatching such as peeping sounds or tiny holes in the shells. Pay close attention to how the chicks get out of their shells. It may take a while, but do not disturb them. Allow the chicks to hatch on their own and remember to keep the incubator closed. Select one egg. Sketch the chick at different stages of hatching from the egg and include any observations in the table below.
5. Move the chicks from the incubator to the brooder when their feathers are dry. Not all of the eggs may hatch. Only the chicks that are strong enough can hatch from their eggs. Carefully dispose of these eggs. Place the thermometer in the brooder so that you can monitor its temperature. It should be kept at 90°F (about 32°C). This will keep the chicks warm and comfortable. They can stay in the brooder for two and a half to three months. Be sure to provide the chicks with food and water daily.

Conclusions

- How is an incubator like a bird's nest?

- Compare the needs of a newborn baby to those of a newly hatched chick. How do their needs for food, water, warmth, cleanliness and protection compare?

Extension

Conduct additional research to learn about the parts of the egg and how a chick develops before it is ready to hatch.
