

Activity 8.2.1 Vitaly Important

Purpose

Lesson 4.3 Breathing, Beating, and Body Controls, introduced you to vital signs. Vital signs are the index of specific body functions such as heart rate, temperature, and respiration. Monitoring vital signs helps a producer determine the health of his or her livestock. Not only does a physical examination of an animal inform a producer of the health of the animal, it will also tell him or her about the stress level of the animal. If animals are acting abnormally, taking their vital signs could help diagnose if the animal is ill. Veterinarians also conduct examinations for health purposes. How do the respiratory rate, heart rate, and temperature of an animal affect its growth and performance?

Animals cannot talk to explain if anything is wrong. As a producer or veterinarian, you must be able to conduct an examination to assist in monitoring the health of your animals. Restraint of the animal is essential for the safety of you and the animal. There are different restraint procedures for specific animals. For instance, to assess the temperature, heart rate, and respiration rate of a dog, it should be held in a standing restraint. By holding the animal in a standing restraint, you have access of the entire body of the animal making it easier to assess vitals. Can you work with a group and assess the vitals of an animal in proper restraints?

Materials

Per group of four students:

- Stethoscope
- Stopwatch
- Rectal thermometer
- 4 plastic thermometer sleeves
- Vaseline

Per class:

- 1 – 5 dogs

Per student:

- Exam gloves
- Pencil
- *Agriscience Notebook*

Procedure

In this activity, you will research the vital signs of your animal in your *Producer's Management Guide*. Then you will work in a group of four to take the vital signs of a dog.

Part One – Animal Vitals

Using the sources provided and your *Presentation Notes* pages from the presentation *Signs of Health*, complete Table 1 of *Activity 8.2.1 Student Worksheet*. Research and record the signs of health, vital signs, and proper restraint procedures for the animal you are studying. Include the worksheet in your *Producer's Management Guide* at the conclusion of this activity.

Part Two – Assessing Vital Signs

Observe the demonstration of assessing the vital signs of a dog performed by a veterinarian. Carefully note all steps and safety precautions.

Your group will work together to conduct a physical examination of a dog. You will properly restrain the animal then assess temperature, respiration rate, and heart rate. Each team member will have an opportunity to practice each procedure.

Procedure for Proper Restraint

1. Depending on the size of the dog, choose a team member to be the restrainer. Small dogs should only need one person restraining, but larger dogs may require two restrainers. Your teacher will assist you in determining the number of restrainers necessary for the animal provided.
2. Kneeling on the ground parallel to the dog, place one arm around the head and neck in a hug. Be sure to keep your face away from the dog's face.
3. Place your free arm under the dog's stomach and lift the dog into a standing position.
4. Keep arms in place during the examination.

Procedure for Assessing Rectal Temperature

- **Note:** The temperature of one animal should not be assessed more than five times. If a minimal number of dogs are available, each group should only assess temperature once.
1. Cover the rectal thermometer with a plastic sleeve.
 2. Apply a small amount of Vaseline on tip of plastic covered thermometer.
 3. Have the restrainer move their arm under the dog's stomach and grasp the tail firmly but gently raising the tail out of the way.
 4. Gently insert the lubricated thermometer into the dog's rectum. **NOTE:** The thermometer only needs to be inserted $\frac{1}{4}$ - $\frac{1}{2}$ an inch into the rectum.
 5. Allow the temperature thermometer to even out (No longer than 20 seconds) then gently remove the temperature thermometer and properly dispose of the plastic sleeve.
 6. Record the temperature in Table 2 of *Activity 8.2.1 Student Worksheet*.
 7. If you are not sharing your dog with another team, have each team member repeat the above process to practice assessing the dog's temperature.

Procedure for Taking Heart Rate

1. Have the restrainer hold dog.
2. Put earpieces of the stethoscope in your ears.
3. Place stethoscope on the dog's left side directly behind the front leg.
4. Listen for pulse, and then count the beats for one minute.
5. A team member will time the minute for you.
6. Record the dog's heart rate in Table 2.
7. Have each team member repeat the above process to practice taking the heart rate.

Procedure for Assessing Respiration Rate

1. Have restrainer hold dog with one arm if possible. Leave the chest visible for observation.
2. One team member will time for one minute.
3. When told to start, count the chest movement for one minute.
4. Record the respiration rate in Table 2 of *Activity 8.2.1 Student Worksheet*.
5. Have each team member repeat the above process to practice assessing the respiration rate.

