Reflex actions and voluntary actions

1 Write each of these actions in the appropriate column of the table below.

 jumping when you hear a loud bang

 writing in the table on this worksheet

 producing saliva in your mouth when you smell good food cooking

 crying out when you accidentally tread on a sharp nail

 choosing which drink to buy

 getting up from a chair in which you are sitting

2 Now add at least **three** more examples of your own, in each column.

|  |  |
| --- | --- |
| Reflex actions | Voluntary actions |
|  |  |

# Reflex Arc WorksheetInstructions:

1. Read each reflex action listed below.
2. Identify and label the components of the reflex arc involved in each action.
3. Use the following abbreviations:
   * SR: Sensory Receptor
   * SN: Sensory Neuron
   * IC: Integration Center (Spinal Cord or Brain)
   * MN: Motor Neuron
   * EO: Effector Organ (Muscle or Gland)

### Reflex Actions:

1. **Knee-Jerk Reflex:**
   * Action: Tapping the patellar tendon just below the knee causes the lower leg to kick forward.
   * Reflex Arc Components:
     + SR:
     + SN:
     + IC:
     + MN:
     + EO:
2. **Withdrawal Reflex (Touching a Hot Surface):**
   * Action: Pulling your hand away quickly after touching a hot stove.
   * Reflex Arc Components:
     + SR:
     + SN:
     + IC:
     + MN:
     + EO:
3. **Blinking Reflex (Sudden Bright Light):**
   * Action: Closing your eyes rapidly in response to sudden exposure to bright light.
   * Reflex Arc Components:
     + SR:
     + SN:
     + IC:
     + MN:
     + EO:
4. **Gag Reflex (Foreign Object in Throat):**
   * Action: Involuntary throat contraction and coughing when something touches the back of the throat.
   * Reflex Arc Components:
     + SR:
     + SN:
     + IC:
     + MN:
     + EO:
5. **Pupillary Reflex (Adjusting to Light):**
   * Action: Constriction of the pupils in response to exposure to bright light.
   * Reflex Arc Components:
     + SR:
     + SN:
     + IC:
     + MN:
     + EO:

### Reflection Questions:

1. **Explain why reflex actions are important for the body's safety and well-being.**
2. **Can you think of any other reflex actions not mentioned in this worksheet? Describe them briefly.**