Bee Waggle Dance

Introduction
European honeybees live in colonies with 20,000-80,000 individual bees. Each bee has a special role to meet the needs of the colony. Forager bees go out of the hive to collect resources such as water, pollen, nectar, and tree resin (propolis). Honeybees have a special adaptation to help them communicate where these resources are located known as a “waggle dance.”

Opening Questions
Why do you think it is important for honeybees to communicate to each other? What parts of the bees body might it use to communicate?

Activity
Create your own waggle dance to communicate to others where a hidden “resource” is located.

Materials
• Small object to hide
• Pencil and paper
• 2+ players

Procedures
• Create “dance moves” that represent a direction to go, be creative!
  ▪ Example:
    ▪ Waving hands = turn around
    ▪ Taping foot = go forward
    ▪ Clapping hands = go left
• Players who are seeking will close their eyes while dancer hides object
• Dancer performs dance moves to communicate where hidden object is
• Seeking players watch dance moves, then try to find object
• Variations:
  ▪ Write down dance move sequence on paper to help dance leader
  ▪ Work in teams of communicators and seekers

Reflection
Was it difficult or easy to communicate without words? Why?

Conclusion
During their waggle dance honeybees use the angle from the sun to communicate direction and the duration of the waggle dance communicates distance from the hive. To attract other forager bees to watch the waggle dance honeybees will vibrate their wings, almost like music! By communicating where the best resources are honeybees are able to efficiently collect supplies to support their large colonies.