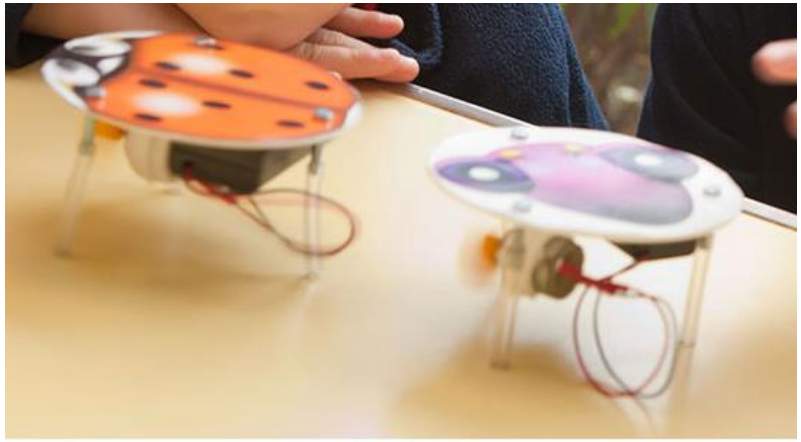
KNOWLEDGE ORGANISER: DT – Jitterbug Year 4

KEY VOCABULARY

- **Circuit** – A path through which electricity flows.
- **Motor** – A device that uses electricity to create movement.
- **Vibration** – Rapid movement that causes the jitterbug to shake.
- **Switch** – A control that turns the circuit on or off.
- **Design** – A plan or drawing to show how something will be made.
- **Evaluate** – To judge how well something works and how it could be improved.

Project Summary:

In this project, Year 4 pupils will design and make their own moving "Jitterbug" toy using a simple electrical circuit and motor. They will explore how circuits can create movement and make design choices based on function and appearance. Pupils will develop skills in building, decorating, and evaluating their toy, combining creativity with basic engineering to bring their jitterbug to life.



Key outcomes:

- How to **build and test a simple electrical circuit** (battery, wires, motor, switch)
- How to use motors to create **vibrating motion**
- How to apply their understanding of materials and aesthetics in a design
- How to **plan, make, test, and evaluate** a product
- How to **use tools safely and accurately**

Safety Tips:

- Always ask an adult before using scissors or cutting tools.
- Handle batteries and wires with care – never force them together.
- Make sure your hands are dry before working with electrical parts.
- Keep your work area tidy to avoid accidents.
- Do not touch moving parts while the motor is running.
- Turn off the switch or disconnect the battery when not in use.