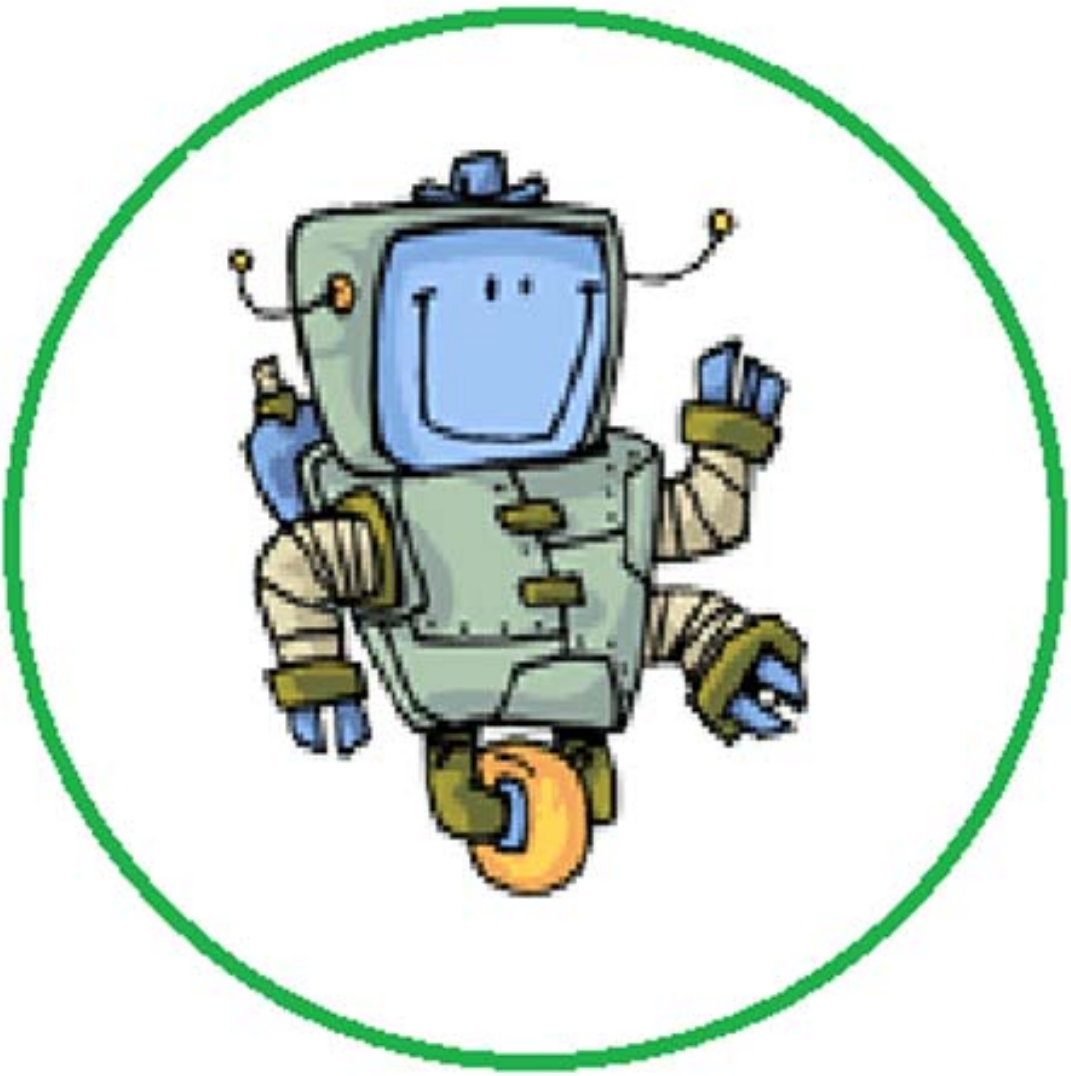
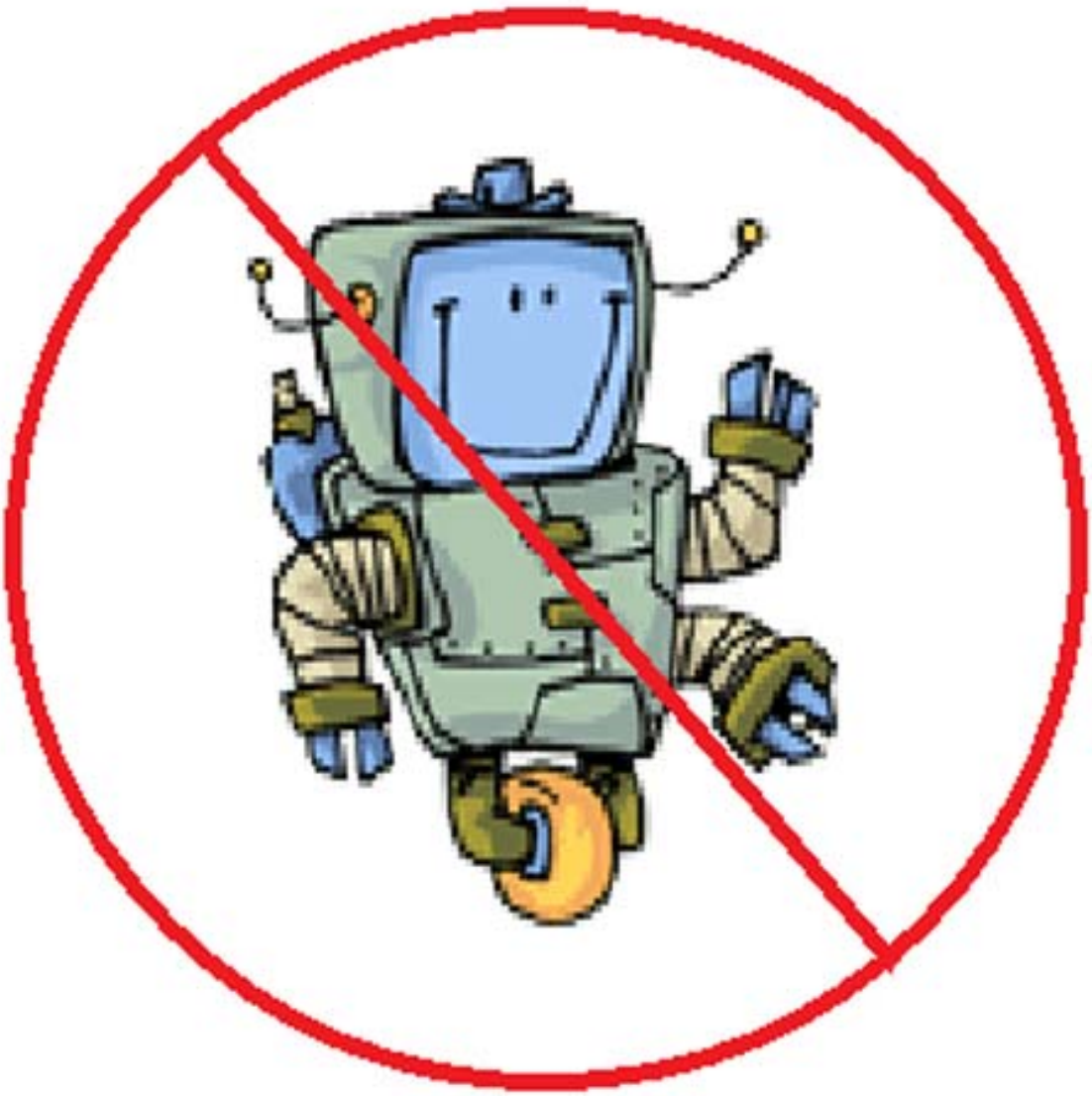
Robot? Not Robot?

The pictures provided in this document can be used to lead a group discussion. Together the children decide whether to place a picture on the “Robot” sign or on the “Not a robot” sign. Discussion about why they designate an item for a category could lead to the creation of a middle ground: “It depends”. Some cars, for example, now can exhibit robotic capabilities as when they park themselves or drive themselves while stopping automatically in an emergency situation. Google Cars are an example of automated robotic vehicles.

Theses documents are part of LEARN’s **Robotics in Kindergarten** web site. See the **Preschool Education** section of the site.





Car / Automobile

Coffee Maker / Cafetière

Elevator / Ascenseur

Microwave Oven / Four Midro-ondes

Toaster / Grille pain

Doll / Poupée

Vending Machine / Machine distributrice

Model 123 with
Odyssey® Styling

Teddy Bear / Ourson

Dog / Chien

Lawn Mower / Tondeuse

Electric Drill / Perceuse électrique

Spinner Top/Toupie

Puppet/ Marionette

Correction Key

Car	A car is not a robot until you use the Automatic **cruise control**. In this mode, a **sensor** identifies the car's speed and maintains a constant speed by injecting gaz or not.
Elevator	An elevator functions as a result of a number of different systems working hand-in-hand. A human hand presses a button either inside or outside the elevator cabin to begin the sequence of events. If there is more than one elevator in the system, each will have **sensors** to detect the position of the other. And, each will also have sensors to detect its own position (which floor it is on) and whether its doors are opened or closed. Sometimes, it even activates a sound file that indicates the floor or whether the elevator is going up or down.
Coffee Maker	A coffee pot is a robot which has **sensors** which can turn it on or off in response to timed sequences or water temperature.
Microwave	Like a coffee pot, the microwave **sensors** can determine when to stop cooking.
Toaster	A toaster has a light **sensor** that will determine when the toast is released and pop-up.
Vending machine	The automated systems in a vending machine are able to identify coins by their size and are therefore able to calculate whether or not enough money has been inserted to pay for the product chosen. Once the system has confirmed appropriate payment an element in the system **automatically controls** the mechanisms to dispense the product.
Doll	A doll is not a robot. Even though the doll has arms and legs (end effectors in robot terminology), they don't move autonomously. A talking doll has a simple on-off switch that activates a sound chip and plays a sound file (often randomly)
Teddy	Same as for doll
Dog	A dog has systems like a robot: Vision, limbs for transportation, central nervous system for processing, but since it is **alive**, it is not a robot.
Lawn Mower	Not a robot: even once its engine is running, it cannot work autonomously and requires a human to move and direct it.
Electric drill	Same as for Lawn Mower
Spinner	A spinner is not a robot although it seems to move without help once launched. But it does so simply using centrifugal force and it stops as a result of friction and gravity.
Puppet	A puppet is not a robot. It requires constant input (manipulation) from the puppeteer in order to move its limbs.