TODDLER STEAM

Recommended Age: 18 Months +

Even little ones can have STEAM fun with this kit that includes items with magnets, to build with, to create circuits and more!

Steam Kits were supported in whole or in part by the U.S. Institute of Museum and Library Services under the provisions of the Library Services and Technology Act, administered in California by the State Librarian.
Contents List

- Book: Turn and Learn Watch Me Grow!: A Book of Life Cycles (Scholastic Early Learners)
- Book: Not a Box by Antoinette Portis
- Grippies Builders
  - 27 pieces
- Playgo Waddling Duckie with Ramp
  - 1 Waddling Duck
  - 5 Ramp pieces
- Lakeshore Toddler Science Center
  - 1 Large Red Horseshoe magnet
  - Magnet Pieces
  - Color Tube: red
  - Color tube: green
  - Color tube: yellow
  - Color tube: blue
  - Sink or Float plastic bin
  - Rubber duck
  - Dolphin
  - Anchor
  - Starfish
  - Lily pad
  - Seal
  - Mirror Center Base
  - 3 mirrors
  - Red teddy bear figurine
  - Magnifying glass
  - Animal cards
- Mindware Start-Up Circuits
  - Light action top
  - Sound action top
  - Fan Action top
  - Slide Switch Block
  - Rocker Switch Block
  - Button Switch Block
  - 6 AA Batteries
  - Instructions
  - Parents’ Guide
- Magicube Building Set
  - 27 Magnetic Blocks

Please note: The total replacement cost of this kit is: $246.81
Policies and Procedures

1. All STEAM Kits must be checked out from and returned to the Central Library Circulation Desk.

2. The children using these kits must be within the prescribed age range. Adult supervision is required.

3. Only one kit is permitted per card at a time.

4. All kits are checked out for two weeks and cannot be renewed. Overdue fees are 25 cents per day past the due date.

5. Holds may not be placed on STEAM Kits, which are available only on a first-come, first-served basis.

6. These kits are intended for home use. Use in a classroom or other group setting requires direct adult supervision.

7. Materials in the front pockets of folders are for your use. Everything in plastic sleeves should remain in plastic sleeves.

8. We reserve the right to inspect the kits in front of the patron before and/or after checkout.

9. The library cardholder is responsible for the contents of the kit. Each kit contains a detailed list of all items in the kit and the replacement costs. Any damage or loss may result in assessed fees.
Getting Started Guide

**Learning About Circuits:**

The three different action tops in this set can light up, whistle, or spin a fan. The blocks and action tops snap together and they are painted with a red stripe going all the way around, so that you can show your child how a circuit is like a circle that makes devices turn on or off depending on whether the circle is open or closed. Open is off, and closed is on.

Talk about what a switch is, and the different kinds of switches you see on the blocks. Point out that one of the switches has a line for "closed" (on) and an open circle for "open" (off). Ask your child what other kinds of switches they can find around the house. Why is it that when we press a button on a machine, something happens? Are we pressing a circuit more tightly closed?

For older children:

Show your child the diagrams that come with the Start-Up Circuits Instructions and Parent Guide. They demonstrate how an electrical engineer would design the circuits used in the toys here. You can also point out that batteries have two sides that are opposites, the "positive" and "negative." Talk about what other opposites your child knows—up and down, big and small. The positive and negative signs tell us which side is which, so that we know which way the energy is flowing.

**Learning About Magnetism:**

There are a million different creative structures you can make using the MagiCube and the Grippies magnetic builders set! While building with your child, talk about magnets and how they have opposite sides, and only one side of each magnet will connect it with another magnet. The Grippies may be the best tool for discussing this concept, since the MagiCube has lots of little magnets inside that get rearranged when you flip them around. Take two Grippies that are stuck together, and try flipping one around. Why won't they go back together?

**Learning About Gravity and Inclines:**

With the waddling duckie, your toddler will be enchanted by how the toy automatically walks down a ramp. Have fun putting the ramp together and then show how the duckie waddles. Why does the duck stay still when it's on a flat, even surface, but it seems to "walk" on a sloped surface? It actually has to do with where the duck's center of gravity is. Can you balance the duck? Set the duck on a regular table and notice that it will stand still on its back foot. But on a slope, that duck is tilted forward, pushing it off-balance so that it slowly falls down the slope, transferring its weight back and forth from one foot to the other. This is the scientific explanation behind it, but can you do other experiments around it? Can you find other slopes the duck can walk on? Why can't the duck also walk "up" the hill?
Labels Needed

We need 3 iron-on labels and 4 sticker labels
REPLACEMENT COST LIST

- **TOTAL KIT COST:** $246.81
- **Book:** Not a Box by Antoinette Portis ($15.99)
- **Book:** Turn and Learn Watch Me Grow!: A Book of Life Cycles (Scholastic Early Learners) ($8.99)
- **Grippies Builders** ($59.95)
  - 30 pieces
- **Waddling Duck with Ramp** ($11.99)
  - 1 Waddling Duck
  - 6 Ramp pieces
- **Lakeshore Toddler Science Center** ($69.99)
  - 1 Large Red Horseshoe magnet
  - Magnet Pieces
  - Color Tube: red
  - Color tube: green
  - Color tube: yellow
  - Color tube: blue
  - Sink or Float plastic bin
  - Rubber duck
  - Dolphin
  - Anchor
  - Starfish
  - Lily pad
  - Seal
  - Mirror Center Base
  - 3 mirrors
  - Red teddy bear figurine
  - Magnifying glass
  - Animal cards
- **Start-Up Circuits** ($19.95)
  - Light action top
  - Sound action top
  - Fan Action top
  - Slide Switch Block
  - Rocker Switch Block
  - Button Switch Block
  - 6 AA Batteries
  - Instructions
  - Parents’ Guide
- **Magicube Building Set** ($59.95)
  - 27 Magnetic Blocks