

Invent a Musical Instrument

You are a team of musicians which wants to enter a contest. It requires that a new type of musical instrument be made with the materials listed here. You must be able to play a simple tune on the instrument.

Materials:

- 3 shoeboxes
- 10 tongue depressors
- 6 glass bottles
- rubber bands of different widths
- 12 drinking straws
- large metal nail

Getting Started:

- Look at the materials you have available to construct the musical instrument. Try using the materials to see if you can make sounds with them.
- The team needs to decide which of these materials will be used to make your musical instrument. (Remember, you must be able to play a song on the invention you make!)
- In the box below, draw a design for your musical instrument. Label the materials that will be used in it and show how your instrument will be played. (You are welcome to use the general materials provided, such as scissors and tape, to construct your instrument.)
- Assemble your musical instrument and play a simple tune on it.
- Make any changes which may be needed to improve the instrument so it makes good sounds.
- Give your invention a name and write it in the design box.

Invention name: _____

Invented by: _____

Invent a Tool

You are a team of engineers. You have been given the materials listed below. Your challenge is to use them to make a useful tool. You will decide what the tool should look like and what work it will do for you.

Materials:

- 3 feet (90 cm) string
- 12 drinking straws
- box of large paper clips
- 6 metal washers about the size of a nickel
- 6 tongue depressors
- circle magnet about the size of a nickel and with a hole in its center
- 10 rubber bands

Getting Started:

- Look at the materials you have to use in constructing the tool. Try using the materials to see if they can be used to do some type of work.
- The team needs to decide which of these materials will be used to make your tool. Remember, you must be able to do some type of work with this invention.
- In the box below, draw a design for your tool. Label the materials that will be used and show how it works. (You are welcome to use the general materials provided, such as scissors and tape, to construct your tool.)
- Assemble your tool and test it to be sure it works.
- Make any changes which may be needed to improve the invention to make it work better.
- Give your invention a name and write it in the design box below.

Invention name: _____

Invented by: _____

Invent a Toy

You are a team of engineers. You have been given the materials listed below. Your challenge is to use them to make a new toy. This toy can be for a child of any age.

Materials:

- 3 unsharpened pencil
- 2 feet of heavy string
- box of small paper clips
- 6 metal washers about the size of a nickel
- 6 drinking straws
- 5 circle magnets about the size of a nickel and with holes in the center

Getting Started:

- Look at the materials you have. Try using the materials to see if you can get any ideas how they may be used to make a toy.
- The team needs to decide which of these materials will be used to make the toy. Remember, the toy can be used by a child of any age. Toys for young children must be simple but also safe so they cannot be swallowed.
- In the box below, draw a design for the toy. Label the materials to be used and show how it works. (You are welcome to use the general materials provided such as scissors and tape to construct your toy.)
- Assemble your toy and test it to be sure it works.
- Make any changes which may be needed to improve the invention to make it work better.
- Give your invention a name and write it in the design box below.

Invention name: _____

Invented by: _____