

Topics: Probability,
Games, Randomness

Materials List

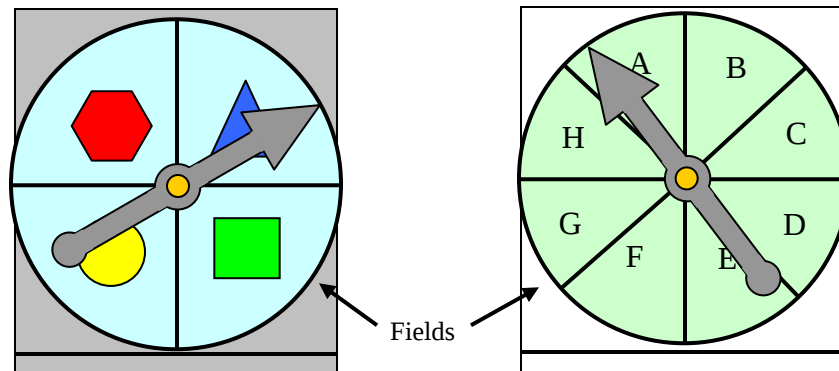
- ✓ Paper disk, the diameter of a CD with a 2 cm (3/4") center hole
- ✓ Round headed fastener, 2.5 cm (1") long
- ✓ Ring bead, 16 mm (5/8") diameter
- ✓ Pony bead(s), 9 mm (11/32") diameter
- ✓ Media tray, 1 or 2, see instructions
- ✓ Brass washer, 2 or 1, size 2
- ✓ CD and rubber bands, needed for the 2 tray design
- ✓ Markers
- ✓ Spinner pointer, cut from cardstock or thin plastic, with a 1 cm (3/8") hole, die cut available at RAFT
- ✓ Decorative materials, as needed

This activity can be used to support the teaching of:

- Represent and Interpret Data (Common Core Math Standards: Measurement & Data, Grades K-5; Statistics and Probability, Grades 6-12)

Spinner on a Media Tray

A Variation of the World's Best, Simplest Game Spinner



A spinner created from 1 or 2 media trays allows the “fields”, located below the spinner, to be changed so the spinner can be used for many games and activities.

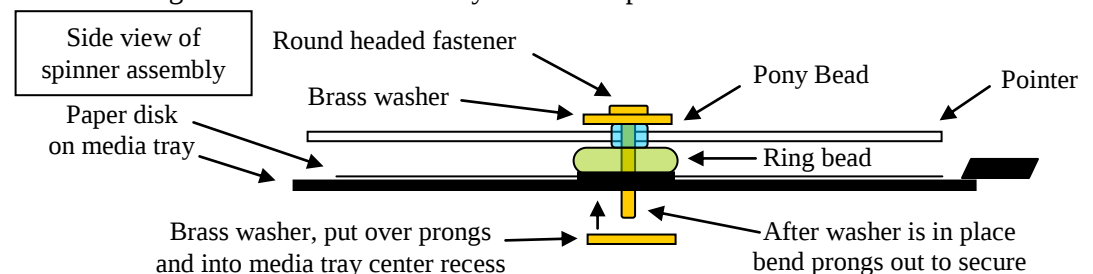
Assembly (Note after step 2 there are 2 sets of instructions, 1 for each version)

1. Decide on the number of “fields” for the spinner. The field’s wedges can be identical in shape or vary in size to increase or decrease the probability that the pointer will “land” on that field.
2. Use markers and/or other materials to create the spinner’s fields on the paper disk. Customize the field layout as needed. Fields could include numbers, letters, or shapes. Additional disks can be created for other games or activities.

Note there are 1 and 2 media tray versions. The 2 media tray version creates a protective cover over the paper disk and allows the disk to be more easily changed.

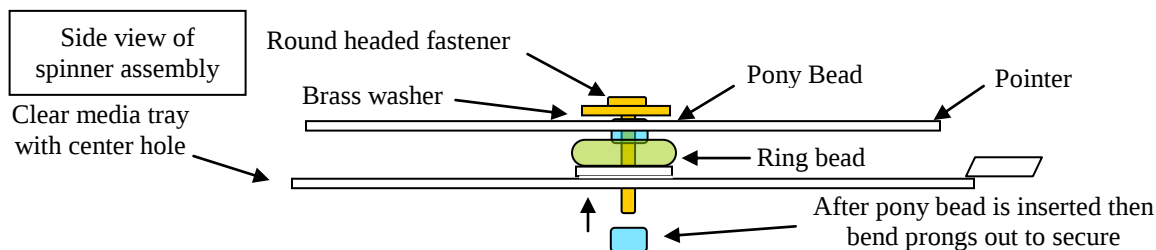
For the 1 media tray version: (Media tray must have an unblocked center hole!)

3. Place a brass washer made for round headed fasteners (has a slot opening) over the prongs of a 2.5 cm (1") long round headed fastener.
4. Insert the fastener’s prongs through the pointer’s center hole.
5. Next insert the prongs through a pony bead having a diameter slightly smaller in diameter than the hole in the pointer. Lay the assembled pieces on a flat surface so that the prongs are pointing upward.
6. Place the ring bead over the prongs so the ring bead rests on the pony bead.
7. Into a media tray, which was removed from a CD type jewel case and has a hole in the center, place the fields’ paper disk in the CD location, marked side upward. The disk could be taped or glued in place if desired or needed.
8. Insert the fastener’s prongs into the hole in the media tray starting from the CD side. Turn a media tray over so the “CD side” is downward. Insert a brass washer over the protruding prongs and into the center opening in the media tray.
9. Press the all pieces together and bend out the exposed prongs above the brass washer so as to secure the pieces together. Press down with a pencil eraser to make a tight fit. Turn the media tray over and reposition the fastener if tilted.

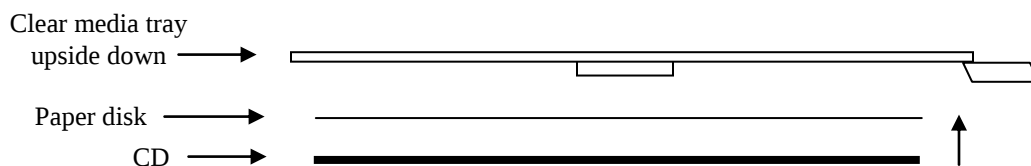


For the 2 media tray version: (Media trays must be clear with one tray having an unblocked center hole!)

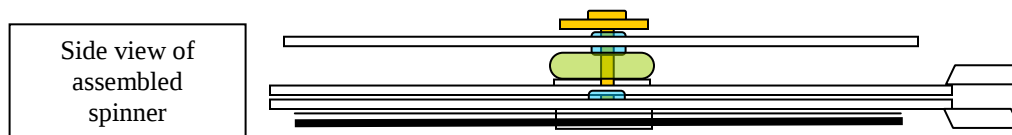
3. Place a brass washer made for round headed fasteners (has a slot opening) over the prongs of a 2.5 cm (1") long round headed fastener.
4. Insert the fastener's prongs through the pointer's center hole.
5. Next insert the prongs through a pony bead having a diameter slightly smaller in diameter than the hole in the pointer. Lay the assembled pieces on a flat surface so that the prongs are pointing upward.
6. Place the ring bead over the prongs so the ring bead rests on the pony bead.
7. Insert the fastener's prongs into the hole in the center hole of a clear media tray starting from the CD side. Turn a media tray over so the "CD side" is downward. Insert a pony bead over the protruding prongs and into the center opening in the media tray. (Note that a brass washer could be used in place of this pony bead.)
8. Press the all pieces together and bend out the exposed prongs above the last pony bead so as to secure the pieces together. Turn the media tray over and reposition the fastener if tilted.



9. Place the fields' paper disk into a clear media tray in the CD location, marked side **downward**. Place a CD over the paper disk and snap into place on the media tray. Turn the tray over so the CD is downward.



10. Place the pointer media tray, pointer side upward over the fields' media tray and place the bottoms together. Rubber band, tape, or glue the media trays together.



To Do and Notice

1. Place the spinner on a level surface.
2. Spin the pointer. The pointer should stop randomly over a field.
3. Use the game spinner as a random number or letter generator, or as a decision-making device for any game board or classroom scenario. The possibilities are endless.
4. To change the fields for the 1 media tray design first un-bend the fastener's prongs so the fastener can be removed from the media tray. Remove and replace, or flip over, the paper disk so a different set of fields are showing. Reassembly the spinner, bending out the fastener's prongs as before.
5. To change the fields for the 2 media tray design simply pop out the CD and paper disk from the bottom media tray. Then remove and replace, or flip over, the paper disk so a different set of fields are showing. Put the paper disk and CD back into place in the bottom media tray.

Web Resources (Visit www.raft.net/raft-idea?isid=562 for more resources!)