## NEWSPAPER TOWERS

# MONKEY CITY Creative Expression



#### THE ADVENTURE:

A single sheet of newspaper isn't very strong on its own. Add another sheet or two and it becomes sturdier. Folding or rolling a few pieces of newspaper together increases their strength even more, and can lead to a much stronger structure that can support weight and withstand wind.

Grab an old newspaper and a roll of masking tape. Roll, fold and tape your way to a free-standing tower that will be able to support a tennis ball, even when the wind picks up. Engineers always need to think about the amount of materials they use, so keep an eye on how much tape and newspaper you are using.

#### DO:

- · Gather your supplies.
- Test a few designs and shapes before building your final tower.
- When each Lair is finished their tower, it's time to test the towers.
- Each tower should be free-standing and moveable.
- Measure each tower to find out which is the tallest.
- Simulate a windstorm using a hair dryer or large fan, or have everyone blow a big gust of wind towards the tower at the same time.
- For an extra challenge, keep track of how much of the materials each Lair has remaining. Who was most efficient in their building?

#### PLAN:

- Where will you get the newspapers for your tower?
- How much tape will each Lair be allowed to use to build its tower? How much newspaper?
- Will there be a time limit on your building challenge? How much time will each Lair have to build its tower?
- How will you compare different towers?
- What do you know about strong shapes and building tall structures?
- How will you care for the environment in the disposal of unused papers and of your towers after the adventure is over?

#### REVIEW:

- What do you know now that you did not know before?
- What shapes worked well for your tower?
- What challenges did your Lair face when building you tower? How did you work together to solve these problems?
- What other structures could you build using newspaper?
- What elements of STEM did you use in this adventure? Science?
   Technology? Engineering? Mathematics?
- What did you like about this adventure? What did you not like? How would you do this adventure differently?





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#### ONLINE RESOURCES:

- Newspaper Tower
- Dome Sweet Dome
- Paper Tower Challenge 2012

### SAFETY TIP:

• Watch out for paper cuts! Have a small first aid kit on hand.

#### MATERIALS:

- Newspaper
- Masking tape
- Scissors
- Hair dryer
- Room fan
- Measuring tape
- Tennis ball



