



STEM FAMILY ACTIVITIES

for independent learning

PAPER CHALLENGES



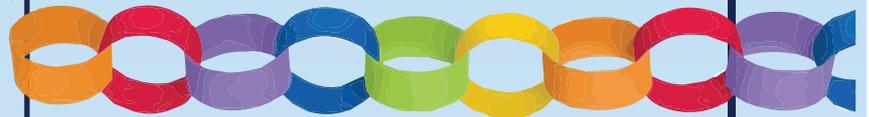
Supplies: All you need is 8^{1/2} x 11 in paper, scissors, tape, a ruler, and family members to complete these challenges.

Optional Technology Connections:

Challenge #1 – Longest Chain

Using 1 piece of paper and tape, each person creates a paper chain. After cutting and taping your chain, lay the chains next to each other to see who made the longest chain. Can you use a new piece of paper and make a longer chain this time?

Watch this video “Solve problems: Be an Engineer!”
tinyurl.com/an-engineer



Challenge #2 – Tallest Tower

Using 1 piece of paper and tape, each person creates a tall tower. You can cut the paper and use the tape, but you can only use one piece of paper. Don't forget: your tower has to stand straight up without holding onto it! Put the paper towers next to each other to see who created the tallest tower. Use a ruler to measure each tower. Did anyone build a tower taller than 18 inches?

Read-aloud of the book “Iggy Peck Architect” by Andrea Beaty
tinyurl.com/iggypeck-book



Challenge #2 – Strongest Base

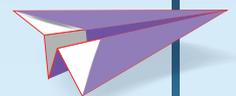
Using 1 piece of paper and tape, each person creates a free-standing structure that will hold up a heavy book. Keep testing and redesigning your structure until it holds up that book.

Want a new challenge? Build a bridge using marshmallows and toothpicks. For more information click here:
tinyurl.com/toothpickbridge

Challenge #2 – Farthest Flying

Using 1 piece of paper and tape, each person folds it into an airplane. Throw your airplane and see how far it goes. Using a ruler, measure how far each person's airplane flies. Can you redesign your paper airplane to make it fly farther?

Play this online game – Paper flight
www.crazygames.com/game/paper-flight



Optional: Go to this link to print a “STEM journal” to record your observations and questions.
tinyurl.com/STEMjournal14



fresno county
superintendent of schools

For more resources or support, contact
Jon Dueck, FCSS STEM Direction – jdueck@fcoe.org
or visit our website: stem.fcoe.org