House of Cards

Supplies

Deck of cards

Ruler

Directions:

1. Balance 2 cards so they lean against each other at the top and form a triangle with each other and the table.

2. Do this again with 2 more cards right next to your first set.

3. Carefully lay one card facedown across the top of the other 2 triangles.

4. Now try to balance 2 more cards against each other on the top of the flat card.

5. Once it is balanced try making other triangles with the cards to make a larger structure.

6. Measure the height of the structure each time you add a layer.

Attempts	Height	Number of cards used
One		
Two		
Three		

QUESTIONS

1. What force keeps the cards in place?

_____

2. Try to make the House of cards on a carpet. Why does it work better?

_____

3. Try making the House of cards with squares instead of triangles. What happens?

STRAW ROCKETS

SUPPLIES

Ruler

Sheet of paper

Scissors

Colored pencils or crayons

Clear Tape

Plastic straw

Tape measure

DIRECTIONS:

1. Use your ruler to draw a rectangle that is 4 inches long and 6 inches wide. Use the scissors to cut it out.
2. Use your colored pencils or crayons to decorate the rectangle.
3. Flip your rectangle over and place a pencil on one of the long ends.
4. Roll the paper tightly around the pencil and use the tape to hold the paper so it stays rolled. Remove the pencil.
5. Fold one end down ¼ inch and seal it closed with the tape. You have your rocket.
6. Slide the paper tube over one end of your straw. Hold the opposite end of the straw on your lips and blow!

QUESTIONS

1. After you fly your rocket several times, watch what happens as it flies. Does it spin in the air or does it fly straight?

2. Record the distance your rocket flies using the tape measure.

#1 distance	# 2 distance	# 3 distance

DIRECTIONS PART 2

1. Make a 2nd rocket following steps 1-5.

2. This time you will add 2 wings to the rocket.

3. Draw 2 triangles that are 2 inches tall and 1 inch wide and cut them out.

4. Tape them on the bottom of the rocket on both sides.

5. Test out this rocket.

6. Record the distances of this rocket below.

#1 distance	#2 distance	# 3 distance

QUESTIONS

1. Does the 2nd rocket spin or stay steady?

2. What is the differences in the distance the 2 rockets fly?

3. What causes the rocket to fly?

4. How do the wings help the rocket fly?