

family

SCIENCE

storytime

RICHLAND LIBRARY | SANDHILLS

● AUGUST ●

Science Workout of the Day

Rocket Science

Straw | Large Straw | Rocket Template | Crayons | Tape

Today's experiment is a fun, safe and easy way to explore air pressure as a means to thrust to launch a rocket or, as your child may say, "the rocket goes farther when I blow harder into the straw!"



- ★ Color the rocket & cut out
- ★ Attach the large straw to the bottom of the rocket with tape making sure the sealed end is at the front of the rocket.
- ★ Slip the small straw into the larger straw and you're ready to launch! Just give your straw a big puff of air!

PRESCHOOL SKILLS: Using scissors and attaching tape help develop fine motor skills; Blowing improves oral motor input – an important skill for self-calming and speech development.

VOCABULARY: Talk about what's happening using words like thrust, lift, angle, force, drag, propel, rocket, launch

LET'S EXPERIMENT: How does the angle you launch your rocket affect the distance it travels? How does air impact launch, lift, and distance? Can you design and engineer other types of rockets using the large/small straw system?

Learning Centers in the Library

Life Cycles

Weather Station

Fractions

Look & Learn Scavenger Hunts

Letter Recognition

Number Recognition

Tangrams

Shapes and Colors

Games & Puzzles



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STEAM

night

RICHLAND LIBRARY | SANDHILLS

JULY

STEAM Workout of the Night

LEGO Puzzle

Card with 10x10 square | LEGOs | **Strategy**



- ★ Build a puzzle that makes a 10x10 square. The pieces can be any shape. See if others can solve your puzzle.
- ★ The puzzle pieces are made out of basic bricks, with a layer of flat bricks on top to attach them.

Marshmallow Catapult

Craft Sticks | Rubber Bands | Plastic Spoon | **Aim**



- ★ Follow the directions posted on the table with the supplies.
- ★ Measure how far you can catapult a marshmallow.
- ★ Can you catch a marshmallow in the basket hat?

Junk Boats

Recyclables | Duct Tape | Chalk | **Ingenuity**



- ★ Have fun and create something fantastic that will float!
- ★ Time how long your boat floats.
- ★ How much weight can it carry before it sinks?

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TEEN Summer Learning Challenge 2016

Richland Library | Sandhills

Challenge yourself to Read, Do, Learn something new this summer with BINGO!

Complete the action in at least 5 squares in a row [|] — \ or / . Once you've completed your BINGO card, write your name and email address on the back and give it to a staff member to be entered to win a \$10 iTunes card! We will email you if you win!

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A BOOK WITH OR ABOUT MUSIC	GO BACK AND READ YOUR 3 FAVORITE PICTURE BOOKS	FIND FREE TEST PREP FOR SAT ACT AP ON OUR SITE LEARNING EXPRESS	A BOOK WITH A NOT SO HUMAN CHARACTERS	LISTEN TO A BOOK ON PLAYAWAY OR DOWNLOADED AUDIOBOOK
A BOOK THAT BECAME A MOVIE	DO A SCHOLARSHIP SEARCH USING CAREERCROISING	A BOOK WITH A FEMALE HEROINE	A BIOGRAPHY GRAPHIC NOVEL	DOWNLOAD 6 SONGS FOR FREE WITH FREEGAL
A BOOK WITH A BREAK-UP	DOWNLOAD A MAGAZINE USING ZINIO		A BOOK FROM THE YOUNG ADULT SC BOOK AWARD NOMINEES	A BOOK THAT'S A RETELLING OF A FAIRYTALE
DOWNLOAD A MOVIE USING HOOPLA	ANY GRAPHIC NOVEL	ATTEND ANY TEEN upSTREAM EVENT @ SANDHILLS	READ THE FIRST BOOK IN A NEW SERIES	LEARN HOW TO ACCESS FREE LIVE ONLINE TUTORING USING TUTOR.COM
ATTEND A COLLEGE & CAREER READY CAFE @ SANDHILLS	LEARN HOW TO SAY HELLO IN 3 DIFFERENT LANGUAGES USING MANGO	A BOOK FOR TEENS THAT IS NON-FICTION	A BOOK THAT MAKES YOU CRY	ADD SOMETHING TO THE LEARN CREATE SHARE COLUMN



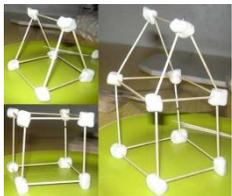
WORKOUT OF THE DAY



Marshmallow Catapult

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Toothpicks and Marshmallows

Toothpicks | Marshmallows | **Imagination**

- ✦ Use the marshmallows as connectors for the toothpicks
- ✦ How high can you make a structure

KEVA Plank Challenges

KEVA Planks | **Critical Thinking**

- ✦ Challenge #1: Build the Widest Bridge
- ✦ Challenge #2: Build a Marble Run
- ✦ Challenge #3: Build from Small to Big: Start with a small base. Build a structure that is larger than the base it is built on.

LEGO Challenges

LEGOs | **Creativity**

- ✦ Pick a card, build, share, rotate

Collaborative Art Mural

Markers | Crayons | Miscellany | **Joy**

- ✦ Don't think too hard! Have fun and create something together!