



SPINNING FOR GOD

SCIENCE SAFETY

PLEASE follow these safety precautions when doing any science experiment.

- **ALWAYS** have an adult present.
- **ALWAYS** wear the correct safety gear while doing any experiment.
- **NEVER** eat or drink anything while doing any experiment.
- **REMEMBER** experiments may require marbles, small balls, balloons, and other small parts. Those objects could become a **CHOKING HAZARD**. Adults are to perform those experiments using these objects. Any child can choke or suffocate on uninflated or broken balloons. Keep uninflated or broken balloons away from children.

TP TWISTER

INGREDIENTS

- Toilet Paper
- Tape
- High Velocity Fan

INSTRUCTIONS

STEP 1: Remove the front grille of the high velocity fan.

STEP 2: Place the fan on the floor, tilt the fan, so it blows air toward the ceiling.

STEP 3: Using the tape, attach about 15 feet of toilet paper to the back of one of the blades.

STEP 4: Holding the toilet paper, in your hands, toward the ceiling, so the toilet paper can easily slip through your hands, have an adult turn the fan to low, and observe. **KEEP YOUR HANDS AWAY FROM THE FAN.**

STEP 5: Holding the toilet paper, in your hands, toward the ceiling, so the toilet paper can easily slip through your hands, have an adult turn the fan to high, and observe. **KEEP YOUR HANDS AWAY FROM THE FAN.** Compare the effects of different strengths or different directions of pushes and pulls on the motion of the toilet paper. Provide evidence of the effects of balanced and unbalanced forces on the toilet paper.

EXPLANATION

Two forces are working together, one is pushing the toilet paper in a curved path while the other is pushing the toilet paper upward, to create a vortex of toilet paper called the TP Twister.



BIBLE TRUTH

Nothing will ever be able to separate you from the love of God.

WHAT THE BIBLE SAYS

Romans 8:38-39

For I am convinced that neither death nor life, neither angels nor demons, neither the present nor the future, nor any powers, neither height nor depth, nor anything else in all creation, will be able to separate us from the love of God that is in Christ Jesus our Lord.

BIBLE CONNECTION

Just like the toilet paper, your life may see to spin out of control, remember, no matter how fast, nothing will ever be able to separate you from the love of God.

SCIENCE WORDS

FORCE – A push or a pull.

CENTRIPETAL

FORCE – A force acting on an object to keep it moving along a circular path.