

Pre-K/Early Elementary Engineering Activities
Patty O'Brien Novak, 3-2012

1. Poem - I use a puppet to enhance the motions which are in ()

From Big (open arms out wide) **to small** (hands close together in front of chest)
From short (arm by side, palm flat to floor) **to tall** (arm overhead, palm flat to floor)
Engineers (cross arms in front and then open) **have a part in it all.**

Come along (wave towards you) **and see** (hand to forehead, peering out)

How engineers make a difference
for you (point to kids), **you, you and me!** (point to self)

2. Finger Play

review motions first:

- * use fingers to count along with song
- * index finger points to head because engineers think of ideas
- * one hand "writes" on palm of other hand because engineers write down their ideas
- * one hand makes hammering motion because engineers create
- * both arms cross in front and then open wide

1 little, 2 little, 3 little (index finger points to head) **engineers**
4 little, 5 little, 6 little (one hand "writes" on palm of other hand) **engineers**

7 little, 8 little, 9 little (one hand makes hammering motion) **engineers**
10 little engineers (both arms cross in front and then open wide) **helping others!**

3. Gross Motor with pretend play

a. **Pretend you're a drop of fuel in a car's engine. Start with a BIG jump up** (jump up) **because we're jumping into the piston chamber. Then bounce your knees up and down** (hands on knees and bounce up and down).

Keep bouncing as the pistons move us up and down. Feel yourself getting hotter?

Now bounce faster (hands on knees and bounce up and down FASTER) **as engineers mix us with air. Faster, faster and STOP** (stop)
Whoa!, you sure made that car go fast!

b. Now pretend you're a big air bubble. Spread your arms and legs out wide - really wide! (arms & legs out wide) **Air takes up lots of space.**

Now you're going through the nozzle of the airplane engine. Make yourself really long & skinny (arms overhead and close to ears, legs together and on tippy toes). **Do you feel yourself getting squeezed in that nozzle?**

Now a BIG jump up (jump with arms & legs out wide again) **because we're coming out of the other end of the nozzle**
And run fast as the nozzle shoots us out really, really fast!
(run fast in place or forward short distance - can go farther if space allows)

c. Last one - are you ready?? OK! Pretend you are a teeny, tiny (index finger and thumb together) **chunk of ice cream - an ice cream "crystal."**

1st make yourself really small (arms crossed over body, legs together)
then turn around (turn around in place) **for the mixing,**
& shake yourself all about (shake arms & legs)
then jump up and down (jump up and down) **for the tumbling,**

and turn around again (turn around in place) **because making good ice cream takes lots and lots of mixing!**

Now give your belly a little poke (poke belly with one hand)
Are you all creamy and smooth?

Not yet? well then start the engineering process all over again!
(repeat turning, shaking, jumping, turning)

(after 2nd time through:)

Now give your belly another little poke (poke belly with one hand)
What do you say, quality engineers? Creamier and smoother this time?

Whew! (wipe brow with hand) **making good ice cream sure is a lot of work!**