

Energy Frontier Research Center Science Using Only a Thousand and One Words Challenge (or the “Energy on-the-Edge Fact-Finding Group Area-of-Study Using Only Ten-Hundred and One Words Game”)

One of the greatest challenges in communicating science to a broader audience is in boiling down a scientifically complex topic to something that is understandable yet still accurate to the science. While many cut jargon and use analogies, a recent cartoonist went beyond this and described the blueprints of the Saturn V rocket using only the 1000 most commonly used words in the English language ([Up Goer Five](#)). While this takes explaining science and eliminating jargon to the extreme, it does offer an opportunity to put in perspective how we as scientists can challenge ourselves to educate, inspire and entertain an intelligent, but not expert, audience with the extraordinary science, innovation, and people in the Energy Frontier Research Centers (EFRCs).

As part of the 2013 EFRC Principal Investigators’ Meeting, the Department of Energy’s Office of Basic Energy Sciences (BES) is sponsoring a challenge. The *EFRC Science in Only Ten-Hundred and One Words Challenge* is an opportunity to describe and highlight an EFRC-centric scientific breakthrough, diagram a complicated method or procedure developed and pertinent to the research of the EFRC, or illustrate the impact on society of an EFRC’s mission using only the 1000 most commonly used words in the English language, with the addition of one word important to each of the EFRCs and the mission of DOE: energy. Entries can include images, cartoons, photos, word art, original paintings, etc. allowing for a full range of creative options. Have fun!

Rules

- Only one submission per EFRC.
- Size: Must fit a 2 ft x 2 ft poster board space and should be easily viewed/read from at least 3 ft away.
- Content should be primarily supported by or attributed to the EFRC program.
- Text used to describe any images, cartoons, or photos must use only the 1000 most commonly used words in the English Language plus one: energy (list attached).
- Submit completed composite images, cartoons, photos, word art, high resolution and low resolution versions of the original collage/painting, etc. to the www.energyfrontier.us website. It is expected that the entrant(s) owns or has the rights to use all components that make up the composite image. Completed composite images may be copyrighted by the individual(s) as long as DOE is granted free-use privileges.
- Name entries with an appropriate title describing the entry piece (like Up-Goer Five) -- not with just the EFRC name.
- EFRC director will email the title and name(s) of entry contributor(s) to Dawn Adin; dawn.adin@science.doe.gov.
- All EFRCs are expected to bring a hard copy printout or original artwork of their entry to display at the meeting during the poster sessions.
- Technical requirements:
 - Image files should be .png, .jpeg, .tiff
 - Uploaded files must be less than 25 MB
 - Two images should be submitted:
 - high resolution (at least 300 dpi) for potential DOE use in brochures or media
 - low resolution (72 dpi) for display on websites
- Join the “[Ten Hundred and One Word Challenge](#)” group on the www.energyfrontier.us to read answers to questions or to ask for additional clarification.

Selection Criteria

Up to five submissions (depending on the number of entries) will be selected by a Department of Energy jury. Among the criteria, the judges will consider visual interest, description of the impact of the science, the clarity of the storytelling, use of images, etc. Winning entries may not necessarily incorporate all of the above characteristics.

A **People's Choice** voting session will be available where entries can be voted on by the public for the two weeks prior to the meeting on the www.energyfrontier.us website.

Selection Process

Each EFRC will upload the entries to the www.energyfrontier.us website. The EFRC director sends the title and names of entry contributor(s) to Dawn Adin; dawn.adin@science.doe.gov. A jury internal to the Department of Energy will judge submissions received before the deadline. They will select up to five winners.

Timeline

- May 15, 2013: Announcement of Challenge to the EFRCs.
- June 20, 2013 11:59 pm Eastern time: Deadline for submission.
- July 3, 2013: People's Choice voting begins on www.energyfrontiers.us website.
- July 16, 2013 11:59 pm Eastern time: Voting ends for People's Choice.
- July 18, 2013: Winning entries will be announced and shown at the plenary session at the beginning of the meeting. All entries will be on display at the two poster sessions during the meeting.

Prizes

- Submitted entries will be displayed during the two poster session during the meeting and on the www.energyfrontier.us website
- Up to five winning teams and the People's Choice Award will be honored on-stage and their entries screened during the plenary session on July 18, 2013.
- Winners will receive certificates and be featured on EFRC websites.

Background Information

Other articles and info on using the 1000 most commonly used words for describing science

- Original cartoon at comic strip xkcd - <http://xkcd.com/1133/>
- The Up-Goer Five Text Editor - <http://splasho.com/upgoer5/>
- Brookhaven National Lab Explaining Science with Ten Hundred Words <http://www.bnl.gov/newsroom/news.php?a=23678>
- Scientific American Blog - <http://blogs.scientificamerican.com/guest-blog/2013/01/27/science-in-ten-hundred-words-the-up-goer-five-challenge/>
- Follow up Scientific American Blog - <http://all-geo.org/highlyallochthonous/2013/01/the-up-goer-five-challenge-now-at-scientific-american/>
- Chronicle of Higher Education - <http://chronicle.com/blogs/profhacker/the-up-goer-five-text-editor/45529>
- Phys.org - <http://phys.org/news/2013-02-up-goer-text-editor-restricts-writers.html>
- NPR blog - <http://www.npr.org/blogs/krulwich/2012/11/19/165469300/why-not-say-it-simply-how-about-very-simply>
- American Science blog - <http://americanscience.blogspot.com/2013/01/up-goer-five-and-rhetoric-of-science.html>
- The Guardian - <http://www.guardian.co.uk/technology/shortcuts/2013/jan/22/up-goer-five-thing-on-computer>

Two profane words in the original list were replaced with REPORT and CERTAIN. ENERGY was also added to the list.

ENERGY	appear	black	catch	cut
REPORT	approach	blink	caught	cute
CERTAIN	are	block	cause	dad
a	area	blonde	cell	damn
able	aren't	blood	chair	dance
about	arm	blue	chance	dark
above	around	blush	change	date
accept	arrive	body	chase	daughter
across	as	book	check	day
act	ask	bore	cheek	dead
actually	asleep	both	chest	deal
add	ass	bother	child	dear
admit	at	bottle	children	death
afraid	attack	bottom	chuckle	decide
after	attempt	box	city	deep
afternoon	attention	boy	class	definitely
again	aunt	boyfriend	clean	desk
against	avoid	brain	clear	did
age	away	break	climb	didn't
ago	baby	breakfast	close	die
agree	back	breath	clothes	different
ah	bad	breathe	coffee	dinner
ahead	bag	bright	cold	direction
air	ball	bring	college	disappear
all	band	broke	color	do
allow	bar	broken	come	doctor
almost	barely	brother	comment	does
alone	bathroom	brought	complete	doesn't
along	be	brown	completely	dog
already	beat	brush	computer	don't
alright	beautiful	build	concern	done
also	became	burn	confuse	door
although	because	burst	consider	doubt
always	become	bus	continue	down
am	bed	business	control	drag
amaze	bedroom	busy	conversation	draw
an	been	but	cool	dream
and	before	buy	corner	dress
anger	began	by	couch	drink
angry	begin	call	could	drive
animal	behind	calm	couldn't	drop
annoy	believe	came	counter	drove
another	bell	can	couple	dry
answer	beside	can't	course	during
any	besides	car	cover	each
anymore	best	card	crack	ear
anyone	better	care	crazy	early
anything	between	carefully	cross	easily
anyway	big	carry	crowd	easy
apartment	bit	case	cry	eat
apparently	bite	cat	cup	edge

either	fit	grey	horse	kiss
else	five	grin	hospital	kitchen
empty	fix	grip	hot	knee
end	flash	groan	hour	knew
enjoy	flip	ground	house	knock
enough	floor	group	how	know
enter	fly	grow	however	known
entire	focus	guard	hug	lady
escape	follow	guess	huge	land
especially	food	gun	huh	large
even	foot	guy	human	last
evening	for	had	hundred	late
eventually	force	hadn't	hung	laugh
ever	forget	hair	hurry	lay
every	form	half	hurt	lead
everyone	forward	hall	I	lean
everything	found	hallway	I'd	learn
exactly	four	hand	I'll	least
except	free	handle	I'm	leave
excite	friend	hang	I've	led
exclaim	from	happen	ice	left
excuse	front	happy	idea	leg
expect	frown	hard	if	less
explain	full	has	ignore	let
expression	fun	hate	imagine	letter
eye	funny	have	immediately	lie
eyebrow	further	haven't	important	life
face	game	he	in	lift
fact	gasp	he'd	inside	light
fall	gave	he's	instead	like
family	gaze	head	interest	line
far	gently	hear	interrupt	lip
fast	get	heard	into	listen
father	giggle	heart	is	little
fault	girl	heavy	isn't	live
favorite	girlfriend	held	it	lock
fear	give	hell	it's	locker
feel	given	hello	its	long
feet	glad	help	jacket	look
fell	glance	her	jeans	lose
felt	glare	here	jerk	lost
few	glass	herself	job	lot
field	go	hey	join	loud
fight	God	hi	joke	love
figure	gone	hide	jump	low
fill	gonna	high	just	lunch
finally	good	him	keep	mad
find	got	himself	kept	made
fine	gotten	his	key	make
finger	grab	hit	kick	man
finish	great	hold	kid	manage
fire	green	home	kill	many
first	greet	hope	kind	mark

marry	no	phone	remember	shirt
match	nod	pick	remind	shock
matter	noise	picture	repeat	shoe
may	none	piece	reply	shook
maybe	normal	pink	respond	shop
me	nose	piss	rest	short
mean	not	place	return	shot
meant	note	plan	ride	should
meet	nothing	play	right	shoulder
memory	notice	please	ring	shouldn't
men	now	pocket	road	shout
mention	number	point	rock	shove
met	obviously	police	roll	show
middle	of	pop	room	shower
might	off	position	rose	shrug
mind	offer	possible	round	shut
mine	office	power	rub	sick
minute	often	practically	run	side
mirror	oh	present	rush	sigh
miss	okay	press	sad	sight
mom	old	pretend	safe	sign
moment	on	pretty	said	silence
money	once	probably	same	silent
month	one	problem	sat	simply
mood	only	promise	save	since
more	onto	pull	saw	single
morning	open	punch	say	sir
most	or	push	scare	sister
mother	order	put	school	sit
mouth	other	question	scream	situation
move	our	quick	search	six
movie	out	quickly	seat	skin
Mr.	outside	quiet	second	sky
Mrs.	over	quietly	see	slam
much	own	quite	seem	sleep
mum	pack	race	seen	slightly
mumble	pain	rain	self	slip
music	paint	raise	send	slow
must	pair	ran	sense	slowly
mutter	pants	rang	sent	small
my	paper	rather	serious	smell
myself	parents	reach	seriously	smile
name	park	read	set	smirk
near	part	ready	settle	smoke
nearly	party	real	seven	snap
neck	pass	realize	several	so
need	past	really	shadow	soft
nervous	pause	reason	shake	softly
never	pay	recognize	share	some
new	people	red	she	somehow
next	perfect	relationship	she'd	someone
nice	perhaps	relax	she's	something
night	person	remain	shift	sometimes

somewhere	summer	throat	us	whole
son	sun	through	use	why
song	suppose	throw	usual	wide
soon	sure	tie	usually	wife
sorry	surprise	tight	very	will
sort	surround	time	visit	wind
sound	sweet	tiny	voice	window
space	table	tire	wait	wipe
speak	take	to	wake	wish
spend	taken	today	walk	with
spent	talk	together	wall	within
spoke	tall	told	want	without
spot	teacher	tomorrow	warm	woke
stair	team	tone	warn	woman
stand	tear	tongue	was	women
star	teeth	tonight	wasn't	won't
stare	tell	too	watch	wonder
start	ten	took	water	wood
state	than	top	wave	word
stay	thank	totally	way	wore
step	that	touch	we	work
stick	that's	toward	we'll	world
still	the	town	we're	worry
stomach	their	track	we've	worse
stood	them	trail	wear	would
stop	themselves	train	week	wouldn't
store	then	tree	weird	wow
story	there	trip	well	wrap
straight	there's	trouble	went	write
strange	these	trust	were	wrong
street	they	truth	weren't	yeah
strong	they'd	try	wet	year
struggle	they're	turn	what	yell
stuck	thick	TV	what's	yes
student	thing	twenty	whatever	yet
study	think	two	when	you
stuff	third	type	where	you'd
stupid	this	uncle	whether	you'll
such	those	under	which	you're
suck	though	understand	while	you've
sudden	thought	until	whisper	young
suddenly	three	up	white	your
suggest	threw	upon	who	yourself