RAFT IDEAS

Topics: Scientific Terminology, Classic Root Words, Vocabulary

Materials List
✓ A variety of material scraps such as wood, plastic, rubber, and cardboard
✓ Clay (optional)
✓ Glue
✓ Paint (optional)

This Activity can be used to teach:
- Science & Engineering Practices (Next Generation Science Standards: grades 4-12)
- Scientific Terminology (Supporting Science Education in All Grades)

Common Core English Language Arts Standards:
- Apply word analysis skills in decoding words (Foundational Skills, Grades 4-5, 3)
- Conversation (Grades 4-12, Speaking & Listening, 1)
- Vocabulary (Grades 4-8, Language, 4; Grades 6-12, Reading Science/Technical, 4)

DINOSAUR NAME GAME
Creating New Dinosaurs from Old Roots

Animal names sometimes seem long and daunting; but if you know the roots, they are actually quite descriptive of the animal itself (i.e. tyranno=tyrant; saurus=lizard; rex=king: Tyrannosaurus Rex = "Tyrant Lizard King"). In this fun and creative activity, students build models of fictitious animals using classic root words.

To Do and Notice
1. Students choose (or have assigned) three word roots from the table(s) and put them together to create a plausible dinosaur name.
   Suggested ways of choosing the words:
   ✓ Provide the list (or lists) to your students and let them choose the words for themselves. For younger students, table 1 provides ample choices without being overwhelming. Older students would be ready for more root words to familiarize themselves with, and might enjoy the greater number of possibilities presented in both lists.
   ✓ Write the words from table 1 onto cards, and place them, in categories, into 6 jars. Have students pull out 3 cards, one each from 3 jars of their choice to determine their "dinosaur" name.
   ✓ Students can roll a 6-sided die to determine their root words. Number each category (1-6), and each English word in each category. Students roll the die once to determine the first root word category, and roll the die again to determine the word. (Note: Since the "color" and "size" categories only have 5 English words, students should re-roll if they get a "6".)
2. Provide students with a variety of materials to construct a 3-dimensional model of the fictitious dinosaur they have just named.
3. **Optional**: Have students write the names of their dinosaurs onto index cards. Place all of the dinosaurs around the room and provide a root word list to each student. As a class activity, redistribute the index cards with names randomly and have the students figure out which name goes with which dinosaur.

The Content Behind the Activity
Scientific words sound to many students like another language… because they are. Scientific nomenclature, as a standard, uses root words from classic Latin and Greek. Just knowing this fact makes some students more at-ease with long, scientific words. Learning as many roots as possible with not only help students with scientific names, but also with vocabulary in general.

Taking it Further
Students can write an essay describing their dinosaur, elaborating on details such as environment, diet, child rearing, and social structure.

Make a list of other words that use these roots. How many can you come up with? What do they mean? Who can come up with the most?

Web Resources (Visit www.raft.net/raft-idea?isid=123 for more resources!)

DINOSAUR NAME GAME

Table 1 (Basic Word List)

English	Latin	Greek	English	Latin	Greek
Colors			**Size**		
Black	atri-, nigri-	melano-	**Dwarf**	pumili-	nano-
Blue	cerule-	cyano-	**Gigantic**	ingenti-	colosso-
Green	viridi-	chloro-	**Large**	grandi-	macro-
White	albi-	leuco-	**Short**	brevi-	brachy-
Yellow	flav-	xantho-	**Tall**	proceri-, alti-	aepy-
Shape			**Texture**		
Curved		cyrto-, gampso-	**Bare**	nudi-	gymno-
Egg-shaped	ovat-		**Bearded**	criniti-	pogono-
Flat	plani-	platy-	**Hairy**	hirsut-	lasio-, trichodo-
Hollow	cavi-	coelo-	**Rough**	asper-	trachy-
Horned	cornut-	cerato-	**Spiny**	spini-	acantho-, echino-
Round	circuli-	cyclo-, gyro-	**Wrinkled**	corrugat-	rugos-
Numbers			**Animal Parts**		
One	mono-	uni-	**Beak**	rostr-	rhyncho-
Two	bi-, duo-	di-	**Claw**	ungui-	chelo-
Three	tri-	tria-	**Foot**	pedi-	podo-
Four	quadri-	tetra-	**Head**	capit-	cephalo-
Seven	septem-	hepta-	**Tail**	caud-	cerco-
Ten	decim-	deca-	**Tooth**	denti-	odonto-

Table 1 words from *Dinosaur Names* by Munsart and Gundy, U.C. Berkeley

Table 2 (Extension Word List)

English	Classic Root	English	Classic Root
Above	super-	**Nose**	rhino-
All	omni-	**Opening**	chasmo-
Arm	brachio-	**Outside**	ex-
Back	dorsal-	**Over**	hyper-
Bird	ornitho-	**Plated**	stego-
Crooked	ankylo-	**Pretty**	compso-
Draw	graph-	**Sharp**	angusti-
Duck	anato-	**Silver**	argentums-
Face	ops-	**Skin**	derm-
Far	tele-	**Slow**	segno-
Fast, Speedy	veloci-	**Star**	astral-
Finger	datyl	**Thief**	lestes-
First	proto-	**Thunder**	bronto-
Gold	aureus	**Toes**	phalangia-
Good Mother	maia-	**Tongue**	lingua-
Hot	thermal-	**Top**	acro-
Inside	endo-	**Twin**	stereo-
Jaw	gnathus-	**Tyrant**	tyranno-
Light	photo-	**Under**	hypo-
Lizard	saurus-	**Water**	aqua-
Many	poly-	**Wing**	pteyg-
Meat	carni-	**Wooly**	lana-