## Activity 4 - Phonemes and Graphemes

1. Read the following excerpt from the Common Core State Standards for English Language Arts - Appendix A.
2. How is this information helpful in your classroom?

## Phoneme-Grapheme Correspondences

## Consonants

Common graphemes (spellings) are listed in the following table for each of the consonant sounds. Note that the term grapheme refers to a letter or letter combination that corresponds to one speech sound.

Consonant Phoneme-Grapheme Correspondences in English

| Phoneme | Word Examples | Common Graphemes <br> (Spellings) <br> for the Phoneme* |
| :---: | :--- | :--- |
| $/ \mathrm{p} /$ | pit, spider, stop | p |
| /b/ | bit, brat, bubble | b |
| $/ \mathrm{m} /$ | mitt, comb, hymn | $\mathrm{m}, \mathrm{mb}, \mathrm{mn}$ |
| $/ \mathrm{t} /$ | tickle, mitt, sipped | $\mathrm{t}, \mathrm{tt}, \mathrm{ed}$ |
| $/ \mathrm{d} /$ | die, loved | $\mathrm{d}, \mathrm{ed}$ |
| /n/ | nice, knight, gnat | $\mathrm{n}, \mathrm{kn}, \mathrm{gn}$ |
| /k/ | cup, kite, duck, chorus, folk, quiet | $\mathrm{k}, \mathrm{c}, \mathrm{ck}, \mathrm{ch}, \mathrm{lk}, \mathrm{q}$ |
| $/ \mathrm{g} /$ | girl, Pittsburgh | $\mathrm{g}, \mathrm{gh}$ |
| $/ \mathrm{ng} /$ | sing, bank | $\mathrm{ng}, \mathrm{n}$ |
| $/ \mathrm{f} /$ | fluff, sphere, tough, calf | $\mathrm{f}, \mathrm{ff}, \mathrm{gh}, \mathrm{ph}, \mathrm{lf}$ |
| /v/ | van, dove | $\mathrm{v}, \mathrm{ve}$ |
| /s/ | sit, pass, science, psychic | $\mathrm{s}, \mathrm{ss}, \mathrm{sc}, \mathrm{ps}$ |
| /z/ | zoo, jazz, nose, as, xylophone | $\mathrm{z}, \mathrm{zz}, \mathrm{se}, \mathrm{s}, \mathrm{x}$ |


| Phoneme | Word Examples | Common Graphemes (Spellings) <br> for the Phoneme* |
| :---: | :---: | :---: |
| /th/ | thin, breath, ether | th |
| /th/ | this, breathe, either | th |
| /sh/ | shoe, mission, sure, charade, precious, notion, mission, special | sh, ss, s, ch, sc, ti, si, ci |
| /zh/ | measure, azure | s, z |
| /ch/ | cheap, future, etch | ch, tch |
| /j/ | judge, wage | j, dge, ge |
| /1/ | lamb, call, single | 1, 11, le |
| /r/ | reach, wrap, her, fur, stir | r, wr, er/ur/ir |
| /y/ | you, use, feud, onion | $y,(u, e u), \mathrm{i}$ |
| /w/ | witch, queen | w, (q)u |
| /wh/ | where | wh |
| /h/ | house, whole | h, wh |

*Graphemes in the word list are among the most common spellings, but the list does not include all possible graphemes for a given consonant. Most graphemes are more than one letter.

## Vowels

Common graphemes (spellings) are listed in the table (see page 3 of this section) for each of the vowel sounds. Note that the term grapheme refers to a letter or letter combination that corresponds to one speech sound.

## Vowel Phoneme-Grapheme Correspondences in English

| Phoneme | Word Examples | Common Graphemes (Spellings) for the Phoneme* |
| :---: | :---: | :---: |
| /e/ | see, these, me, eat, key, happy, chief, either | ee, e_e, -e, ea, ey, -y, ie, ei |
| /1/ | sit, gym | i, y |
| /a/ | make, rain, play, great, baby, eight, vein, they | a_e, ai, ay, ea, -y, eigh, ei, ey |
| /ě/ | bed, breath | e, ea |
| /ă/ | cat | a |
| /i/ | time, pie, cry, right, rifle | i_e, ie, -y, igh, -i |
| /ŏ/ | fox, swap, palm | o, wa, al |
| $/ \overline{\mathrm{u}} /$ | cup, cover, flood, tough | $\mathrm{u}, \mathrm{o}, \mathrm{oo}, \mathrm{ou}$ |
| /aw/ | saw, pause, call, water, bought | aw, au, all, wa, ough |
| /o. | vote, boat, toe, snow, open | o_e, oa, oe, ow, o- |
| /00/ | took, put, could | oo, u, ou |
| $/ \overline{\mathrm{u}} /[\overline{\mathrm{oo}}]$ | moo, tube, blue, chew, suit, soup | oo, u_e, ue, ew, ui, ou |
| $/ \mathrm{y} / / \overline{\mathrm{u}} /$ | use, few, cute | u, ew, u_e |
| /oi/ | boil, boy | oi, oy |
| /ow/ | out, cow | ou, ow |
| er | her, fur, sir | er, ur, ir |
| ar | cart | ar |
| or | sport | or |

*Graphemes in the word list are among the most common spellings, but the list does not include all possible graphemes for a given vowel. Many graphemes are more than one letter.

## Phonological Awareness

## General Progression of Phonological Awareness Skills (PreK-1)

## Word Awareness (Spoken Language)

Move a chip or marker to stand for each word in a spoken sentence.
The dog barks. (3)
The brown dog barks. (4)
The brown dog barks loudly. (5)

## Rhyme Recognition during Word Play

Say "yes" if the words have the same last sounds (rhyme):
clock/dock (y)
red/said (y)
down/boy (n)

## Repetition and Creation of Alliteration during Word Play

Nice, neat Nathan
Chewy, chunky chocolate

## Syllable Counting or Identification (Spoken Language)

A spoken syllable is a unit of speech organized around a vowel sound.
Repeat the word, say each syllable loudly, and feel the jaw drop on the vowel sound:
chair (1) table (2) gymnasium (4)

## Onset and Rime Manipulation (Spoken Language)

Within a single syllable, onset is the consonant sound or sounds that may precede the vowel;
rime is the vowel and all other consonant sounds that may follow the vowel.
Say the two parts slowly and then blend into a whole word:
school onset -/sch/; rime - /ool/
star onset -/st/; rime - /ar/
place onset -/pl/; rime - /ace/
all onset (none); rime - /all/

## General Progression of Phoneme Awareness Skills (K-2)

Phonemes are individual speech sounds that are combined to create words in a language system. Phoneme awareness requires progressive differentiation of sounds in spoken words and the ability to think about and manipulate those sounds. Activities should lead to the pairing of
phonemes (speech sounds) with graphemes (letters and letter combinations that represent those sounds) for the purposes of word recognition and spelling.

## Phoneme Identity

Say the sound that begins these words. What is your mouth doing when you make that sound?
milk, mouth, monster $/ \mathrm{m} /$ - The lips are together, and the sound goes through the nose. thick, thimble, thank /th/ - The tongue is between the teeth, and a hissy sound is produced.
octopus, otter, opposite /o/ - The mouth is wide open, and we can sing that sound.

## Phoneme Isolation

What is the first speech sound in this word?
ship /sh/
van /v/
king /k/
echo /e/
What is the last speech sound in this word?
comb /m/
$\operatorname{sink} / \mathrm{k} /$
rag /g/
go /o/

## Phoneme Blending (Spoken Language)

Blend the sounds to make a word:
(Provide these sounds slowly.)
/s/ /ay/ say
/ou/ /t/ out
/sh/ /ar/ /k/ shark
/p/ /o/ /s/ /t/ post

## Phoneme Segmentation (Spoken Language)

Say each sound as you move a chip onto a line or sound box:
no $/ \mathrm{n} / \mathrm{/o} /$
$\operatorname{rag} / \mathrm{r} / / \mathrm{a} / / \mathrm{g} /$
socks /s/ /o/ /k/ /s/
float /f/ /l/ /oa/ /t/

## Phoneme Addition (Spoken Language)

What word would you have if you added /th/ to the beginning of "ink"? (think)
What word would you have if you added /d/ to the end of the word "fine"? (find)
What word would you have if you added $/ \mathrm{z} /$ to the end of the word "frog"? (frogs)

## Phoneme Substitution (Spoken Language)

Say "rope." Change $/ \mathrm{r} /$ to $/ \mathrm{m} /$. What word would you get? (mope)
Say "chum." Change /u/ to /ar/. What word would you get? (charm)
Say "sing." Change /ng/ to /t/. What word would you get? (sit)

## Phoneme Deletion (Spoken Language)

Say "park." Now say "park" without /p/. (ark)
Say "four." Now say "four" without /f/. (or)

## Orthography

Categories of Phoneme-Grapheme Correspondences

## Consonant Graphemes with Definitions and Examples

| Grapheme Type | Definition | Examples |
| :--- | :--- | :--- |
| Single Letters | A single consonant letter can <br> represent a consonant <br> phoneme. | $\mathrm{b}, \mathrm{d}, \mathrm{f}, \mathrm{g}, \mathrm{h}, \mathrm{j}, \mathrm{k}, \mathrm{l}, \mathrm{m}, \mathrm{n}, \mathrm{p}, \mathrm{r}, \mathrm{s}$, <br> $\mathrm{t}, \mathrm{v}, \mathrm{w}, \mathrm{y}, \mathrm{z}$ |
| Doublets | A doublet uses two of the <br> same letter to spell one <br> consonant phoneme. | ff, ll, ss, zz |
| Digraphs | A digraph is a two- (di-) letter <br> combination that stands for <br> one phoneme; neither letter <br> acts alone to represent the <br> sound. | ph, ng (sing) <br> gh (cough) |
| [ck is a guest in this category] |  |  |$|$| trigraphs |
| :--- | | A trigraph is a three- (tri-) |
| :--- |
| letter combination that stands |
| for one phoneme; none of the |
| letters acts alone to represent |
| the sound. |$\quad$| -tch |
| :--- |
| -dge |


| Grapheme Type | Definition | Examples |
| :--- | :--- | :--- |
| Consonants in blends | A blend contains two or three <br> graphemes because the <br> consonant sounds are separate <br> and identifiable. A blend is not <br> "one sound." | s-c-r (scrape) th-r (thrush) <br> c-l (clean) f-t (sift) <br> l-k (milk) s-t (most) <br> and many more |
| Silent letter combinations | Silent letter combinations use <br> two letters: one represents the <br> phoneme, and the other is <br> silent. Most of these are from <br> Anglo-Saxon or Greek. | kn (knock), wr (wrestle), <br> gn (gnarl), ps (psychology), <br> rh (rhythm), -mb (crumb), <br> -lk (folk), -mn (hymn), <br> -st (listen) |
| Combination qu | These two letters, always <br> together, usually stand for two <br> sounds, /k//w/. | quickly |

Vowel Graphemes with Definitions and Examples

| Grapheme Type | Definition | Examples |
| :--- | :--- | :--- |
| Single letters | A single vowel letter stands <br> for a vowel sound. | (short vowels) cap, hit, gem, <br> clod, muss <br> (long vowels) me, no, music |
| Vowel teams | A combination of two, three, <br> or four letters stands for a <br> vowel. | (short vowels) head, hook <br> (long vowels) boat, sigh, <br> weigh <br> (diphthongs) toil, bout |
| Vowel-r combinations | A vowel, followed by r, works <br> in combination with /r/to <br> make a unique vowel sound. | car, sport, her, burn, first |
| Vowel-consonant-e (VCe) | The vowel-consonant-silent e <br> pattern is common for spelling <br> a long vowel sound. | gate, eve, rude, hope, five |

## Six Types of Written Syllable Patterns

| Syllable Type | Definition | Examples |
| :---: | :---: | :---: |
| Closed | A syllable with a short vowel spelled with a single vowel letter ending in one or more consonants. | dap-ple <br> hos-tel <br> bev-erage |
| Vowel-C-e <br> ("Magic e") | A syllable with a long vowel spelled with one vowel + one consonant + silent $e$. | compete <br> despite |
| Open | A syllable that ends with a long vowel sound, spelled with a single vowel letter. | program <br> table <br> recent |
| Vowel Team | Syllables that use two to four letters to spell the vowel. | beau-ti-ful <br> train-er <br> con-geal <br> spoil-age |
| Vowel-r <br> (r-controlled) | A syllable with er, ir, or, ar, or ur. Vowel pronunciation often changes before $/ \mathrm{r} /$. | in-jur-ious <br> con-sort <br> char-ter |
| Consonant-le | An unaccented final syllable containing a consonant before $/ 1 /$ followed by a silent $e$. | dribble <br> beagle <br> little |

## Three Useful Principles for Chunking Longer Words into Syllables

1. VC-CV: Two or more consonants between two vowels

When syllables have two or more adjacent consonants between them, we divide between the consonants. The first syllable will be closed (with a short vowel).
sub-let nap-kin pen-ny emp-ty
2. V-CV and VC-V: One consonant between two vowels
a) First try dividing before the consonant. This makes the first syllable open and the vowel long. This strategy will work 75 percent of the time with VCV syllable division.
e-ven ra-bies de-cent ri-val
b) If the word is not recognized, try dividing after the consonant. This makes the first syllable closed and the vowel sound short. This strategy will work 25 percent of the time with VCV syllable division.
ev-er rab-id dec-ade riv-er
3. Consonant blends usually stick together. Do not separate digraphs when using the first two principles for decoding.
e-ther spec-trum se-quin

## Morphemes Represented in English Orthography

## Examples of Inflectional Suffixes in English

| Inflection | Example |
| :--- | :--- |
| -s plural noun | I had two eggs for breakfast. |
| -s third person | She gets what she wants. |
| -ed past tense verb | We posted the notice. |
| -ing progressive tense verb | We will be waiting a long time. |
| -en past participle | He had eaten his lunch. |
| 's possessive singular | The frog's spots were brown. |
| -er comparative adjective | He is taller than she is. |
| -est superlative adjective | Tom is the tallest of all. |

## Examples of Derivational Suffixes in English

Derivational suffixes, such as -ful, -ation, and -ity, are more numerous than inflections and work in ways that inflectional suffixes do not. Most derivational suffixes in English come from the Latin layer of language. Derivational suffixes mark or determine part of speech (verb, noun, adjective, adverb) of the suffixed word. Suffixes such as -ment, -ity, and -tion turn words into nouns; -ful, -ous, and -al turn words into adjectives; -ly turns words into adverbs.
nature (n. - from nat, birth)
natural (adj.)
naturalize (v.)
naturalizing (v.)
naturalistic (adj.)
permit (n. or v.)
permission (n.)
permissive (adj.)
permissible (adj.)
permissibly (adv.)

