**Speech and Language Development**

**4-4 ½ Years:**

**Articulation Developmental Norms-**

* Developed phonemes: **/**m/, /n/, /h/, /w/, /p/, /b/, /t/, /d/, /k/, /g/, /f-/
	+ Females: /j/

**Phonology Developmental Norms-**

* Few omissions and substitutions of consonants.
* Very intelligible in connected speech.
* Cluster Reduction: When a consonant cluster is reduced to a single consonant (without /s/)

**Syntax and Morphology Developmental Norms-**

* “If” and “so” appear in sentences.
* Irregular plurals used semi-consistently (child/children).
* “Our, they, and their” used consistently.
* Uses “could” and “would” in sentences.
* Errors of noun/verb and adjective/noun agreement are frequent.
* Mean length of utterance (MLU) is 4.6 words.

**4 ½ - 5 Years:**

**Articulation Developmental Norms-**

* Developed phonemes: **/**m/, /n/, /h/, /w/, /p/, /b/, /t/, /d/, /k/, /g/, /f-/
	+ Females: /ð/, /j/

**Phonology Developmental Norms-**

* Most consonants used consistently and accurately, though may not be mastered in all context.
* More errors present in difficult blends.
* Very intelligible in connected speech.

**Syntax and Morphology Developmental Norms:**

* Possessive pronouns “his, her” emerge.
* Uses “will” for future tense.
* Fewer errors in adjective/noun agreement.
* Comparative (er) emerging (bigger).
* MLU is 5.7 words.

**5-5 ½ Years:**

**Articulation Developmental Norms-**

* Developed phonemes: **/**m/, /n/, /h/, /w/, /p/, /b/, /t/, /d/, /k/, /g/, /f-/, /j/
	+ Females: /ð/, /l/

**Phonology Developmental Norms-**

* Alveolarization: When a nonalveolar sound is substituted with an alveolar sound (“tu” for “shoe”) should be eliminated by age 5.
* Depalatalization: When a palatal sound is substituted with a nonpalatal sound (“fit” for “fish”)
* Cluster Reduction: When a consonant cluster is reduced to a single consonant.

**Syntax and Morphology Developmental Norms:**

* 3rd person irregular (he does, she has)
* Uncontractible auxiliary (Are they swimming?)
* Contractible copula (She’s ready, they’re here)
* Uncontractible auxiliary (He’s going, they’re running)

**5 1/2 – 6 Years:**

**Articulation Developmental Norms-**

* Developed phonemes: **/**m/, /n/, /h/, /w/, /p/, /b/, /t/, /d/, /k/, /g/, /f/, /v/
	+ Females: /ð/, /l-/

**Phonology Developmental Norms-**

* Very few omissions and substitutions of consonants
* More errors present in difficult consonant blends

**Syntax and Morphology Developmental Norms:**

* Fewer agreement errors between noun-verb agreement and adjective-noun agreement (e.g. They wants to go)
* Passive is emerging (e.g. The dog was taken for a walk)
* Later-developing complex sentences emerge, including:
	+ Relative clauses (e.g. “My friend who lives down the street is coming over”)
	+ Infinitive clauses with different subjects (e.g. “I want him to go)
	+ Gerund clauses (e.g. “Swimming is fun”)
	+ Wh- infinitive clauses (e.g. “I don’t know where to put it”)

**Speech and Language Definitions**

**Definition of Stuttering** – Disfluency (stuttering) is an abnormally high frequency or duration of stoppages in the forward flow of speech that occurs in the form of repetitions of sounds or syllable prolongation of sounds, blocks of airflow or voicing. Often accompanied by awareness, embarrassment, signs of physical tension, or increased rate of speech (MSHA, 2006).

**Developmental Stuttering (Normal Disfluencies):** Between the ages of 18 months and 7 years, many children pass through stages of speech disfluency associated with their attempts to learn how to talk. Children with normal disfluencies between 18 months and 3 years will exhibit repetitions of sounds, syllables, and words, especially at the beginning of sentences. These occur usually about once in every ten sentences.

After 3 years of age, children with normal disfluencies are less likely to repeat sounds or syllables but will instead repeat whole words (I-I-I can’t) and phrases (I want…I want…I want to go). They will also commonly use fillers such as “uh” or “um” and sometimes switch topics in the middle of a sentence, revising and leaving sentences unfinished.

* Increase their disfluencies when they are tired, excited, upset, or being rushed to speak.
* May be more disfluent when they ask questions or when someone asks them questions.
* May increase in frequency for several days or weeks and then be hardly noticeable for weeks or months, only to return again.
* Typically, appear to be unaware of them, showing no signs of surprise or frustration.

**Definition of a Language Disorder** – ASHA (1993, p. 40) provides the following definition of a language disorder and its components:

A language disorder is impaired comprehension and/or use of spoken, written and/or other symbol systems. The disorder may involve (1) the form of language (phonology, morphology, and syntax), (2) the content of language (semantics), and/or (3) the function of language in communication (pragmatics) in any combination.

1. **Form of Language** (a) Phonology is the sound system of language and the rules that govern sound combinations. (b) Morphology is the system that governs the structure of words and the construction of word forms. (c) Syntax is the system governing the order and combination of words to form sentences and the relationships among the elements within a sentence.

2**. Content of Language** (a) Semantics is the system that governs the meanings of words and sentences.

3. **Function of Language** (a) Pragmatics is the system that combines the above language components in functional and socially appropriate communication.

**Listening Comprehension** – A disability in listening comprehension would be evident in the student’s:

* Difficulty or inability to concentrate on, comprehend, and apply spoken language
* Difficulty with comprehension and interpretation of spoken language
* Problems with information received aurally
* Difficulty processing oral information in a timely manner in the educational setting. Many of these characteristics are also indicative of APD and/or

**Oral Expression** – Oral expression appears to be more difficult to identify. Some general characteristics include:

* Difficulty in expressing concepts orally they seem to understand
* Difficulty speaking grammatically correct English, even though English is their only or first language
* Difficulty following or having a conversation about an unfamiliar idea
* Trouble telling a story in the proper sequence
* Difficulty organizing thoughts for responsive language vs. spontaneous speech

**Pragmatics**- Social communication evident in children 4-6 years of age:

* Uses indirect requests
* More elaborate discussions of emotions and feelings
* Correctly uses deictic terms (those that specify time or place from the perspective of the speaker) including “this”, “that”, “here”, and “there”
* Ability to address specific requests for clarification increases
* Narratives are “chains” of unfocused sequences of events
	+ Have some plot
	+ No central character
	+ No high point or resolution

**Articulation Norms:**

|  |  |  |
| --- | --- | --- |
| **Phoneme** | **Age Of Acquisition (Females)** | **Age of Acquisition (Males)** |
| /m/ | 3;0 | 3;0 |
| /n/ | 3;6 | 3;0 |
| /ŋ/ | 7;0 | 7;0 |
| /h-/ | 3;0 | 3;0 |
| /w-/ | 3;0 | 3;0 |
| /j-/ | 4;0 | 5;0 |
| /p/ | 3;0 | 3;0 |
| /b/ | 3;0 | 3;0 |
| /t/ | 4;0 | 3;6 |
| /d/ | 3;0 | 3;6 |
| /k/ | 3;6 | 3;6 |
| /g/ | 3;6 | 4;0 |
| /f-/ | 3;6 | 3;6 |
| /-f/ | 5;6 | 5;6 |
| /v/ | 5;6 | 5;6 |
| /θ/ | 6;0 | 8;0 |
| /ð/ | 4;6 | 7;0 |
| /s/ | 7;0 | 7;0 |
| /z/ | 7;0 | 7;0 |
| /dʒ/ | 6;0 | 7;0 |
| /l-/ | 5;0 | 6;0 |
| /-l/ | 6;0 | 7;0 |
| /r-/ | 8;0 | 8;0 |
| /ɚ/ | 8;0 | 8;0 |

**Additional Resources:**

Phonological Processes Developmental Norms:

<http://mommyspeechtherapy.com/wp-content/downloads/forms/phonological_processes.pdf>

Speech and Language Developmental Norms:

<http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad=rja&uact=8&sqi=2&ved=0CD0QFjAE&url=http%3A%2F%2Fwww.rehabmed.ualberta.ca%2Fspa%2Fphonology%2Fmilestones.pdf&ei=TFRlVITDMMv4yQTk2YL4DA&usg=AFQjCNFs-I7QUVypbM0QOqN_7jmL8Qa8sQ&sig2=NfR0lEF8c-2Uv286tg58wA>

Kent County Speech and Language Guidelines:

<http://www.kentisd.org/downloads/sped_forms-guidelines/sli_word_020209_20121114_152304_48.pdf>

**References:**

Differential Diagnosis. (n.d.). In *The Stuttering Foundation*. Retrieved from

http://www.stutteringhelp.org/differential-diagnosis

Gard, A., Gillman, L., & Gorman, J. (1993). Speech and Language Development Chart (2nd

Ed.). Austin: Pro-Ed.

Paul, Rhea (2001). Language Disorders From Infancy Through Adolescence (2ndEd.). St.

Louis: Mosby.

Smit, Hand, Freilinger, Bernthal, and Bird (1990). Journal of Speech and Hearing Disorders, 55,

779-798.