

1 Identifiers

$\langle word \rangle ::= \langle Letter \rangle \{ [\text{' } | -] \langle Letter \rangle \}$

$\langle identifier \rangle ::= \langle word \rangle \{ \langle word \rangle \}$

$\langle java-identifier \rangle ::= \langle word \rangle \{ \langle word \rangle \}$

$\langle list-of-identifiers \rangle ::= \langle identifier \rangle$
| $\langle identifier \rangle [,] \text{ and } \langle identifier \rangle$
| $\langle identifier \rangle , \langle list-of-identifiers \rangle$

2 Literals

$\langle number \rangle ::= \text{zero} | \text{one} | \dots | \text{twelve} | \langle Digit \rangle \{ \langle Digit \rangle \}$

$\langle ordinal-literal \rangle ::= [\text{the}] (\text{first} | \dots | \text{twelfth} | \langle number \rangle (\text{st}|\text{nd}|\text{rd}|\text{th}))$

$\langle string-literal \rangle ::= \langle Double-Quote \rangle \{ \langle Non-Quote-Character \rangle \{ \langle Non-Quote-Character \rangle$
 $\} | \langle Single-Quote \rangle \langle expression \rangle \langle Single-Quote \rangle \} \langle Double-Quote \rangle$

$\langle literal \rangle ::= \langle number \rangle | \langle string-literal \rangle$

3 Expressions

$\langle simple-expression \rangle ::= \langle literal \rangle | \langle identifier \rangle$

$\langle list-expression \rangle ::= \langle simple-expression \rangle [,] \text{ and } \langle simple-expression \rangle$
| $\langle simple-expression \rangle , \langle list-expression \rangle$

$\langle expression \rangle ::= \langle list-expression \rangle$
| $\text{only } \langle simple-expression \rangle$
| $\langle simple-expression \rangle$

$\langle argument-list \rangle ::= \langle simple-expression \rangle$
| $\langle simple-expression \rangle [,] \text{ and } \langle simple-expression \rangle$
| $\langle simple-expression \rangle , \langle argument-list \rangle$

$\langle ordinal-expression \rangle ::= \langle ordinal-literal \rangle \text{ page}$
| $\text{page numbered by } \langle identifier \rangle$

4 Auxiliary words

$\langle \textit{does} \rangle ::= \textit{does} \mid \textit{do} \mid \textit{did}$

$\langle \textit{is} \rangle ::= \textit{is} \mid \textit{are} \mid \textit{was} \mid \textit{were}$

$\langle \textit{has} \rangle ::= \textit{has} \mid \textit{have} \mid \textit{had}$

$\langle \textit{is-or-likes} \rangle ::= \textit{is} \mid \textit{are} \mid \textit{likes} \mid \textit{like}$

$\langle \textit{pronoun} \rangle ::= \textit{he} \mid \textit{she} \mid \textit{it} \mid \textit{they}$

$\langle \textit{pronoun-o} \rangle ::= \textit{him} \mid \textit{her} \mid \textit{it} \mid \textit{them}$

5 Conditions

$\langle \textit{simple-condition} \rangle ::= \langle \textit{expression} \rangle \langle \textit{conditional-operator} \rangle \langle \textit{expression} \rangle$
| $(\textit{everypony} \mid \textit{everything}) \textit{in} \langle \textit{expression} \rangle \langle \textit{conditional-operator} \rangle \langle \textit{expression} \rangle$
| $(\textit{anypony} \mid \textit{anything}) \textit{in} \langle \textit{expression} \rangle \langle \textit{conditional-operator} \rangle \langle \textit{expression} \rangle$
| $\langle \textit{expression} \rangle \langle \textit{is} \rangle (\textit{nothing} \mid \textit{no pony})$
| $\langle \textit{expression} \rangle \langle \textit{is} \rangle (\textit{something} \mid \textit{somepony})$

$\langle \textit{conditional-operator} \rangle ::= \langle \textit{has} \rangle \textit{less than}$
| $\langle \textit{has} \rangle \textit{more than}$
| $\langle \textit{has} \rangle \textit{not less than}$
| $\langle \textit{has} \rangle \textit{not more than}$
| $\langle \textit{is} \rangle \textit{equal to}$
| $\langle \textit{is} \rangle \textit{not equal to}$
| $\langle \textit{is} \rangle ([\textit{an}] \textit{element} \mid \textit{elements}) \textit{of}$
| $\langle \textit{is} \rangle \textit{not} ([\textit{an}] \textit{element} \mid \textit{elements}) \textit{of}$

6 Punctuation

$\langle \textit{inline-comment} \rangle ::= , \textit{because} \{ \langle \textit{Almost-Anything} \rangle \}$

$\langle \textit{sentence-end} \rangle ::= [\langle \textit{inline-comment} \rangle] (.|!)$

$\langle \textit{header-end} \rangle ::= [\langle \textit{inline-comment} \rangle] (.|:)$

$\langle \textit{question-end} \rangle ::= [\langle \textit{inline-comment} \rangle] (?)$

7 Statements

$\langle \text{increment-}s \rangle ::= \langle \text{identifier} \rangle \text{ got } \langle \text{number} \rangle (\text{more} | \text{less} | \text{fewer}) \langle \text{sentence-end} \rangle$

$\langle \text{assignment-}s \rangle ::= \text{Did you know } [\text{that}] \langle \text{identifier} \rangle \langle \text{is-or-likes} \rangle \langle \text{expression} \rangle$
 $\langle \text{question-end} \rangle$

$\langle \text{if-}s \rangle ::= \text{When } \langle \text{condition} \rangle \langle \text{header-end} \rangle$
 $\{ \langle \text{statement} \rangle \} [\text{In the end, I did this instead } \langle \text{header-end} \rangle$
 $\{ \langle \text{statement} \rangle \}] \text{That's what I did } \langle \text{sentence-end} \rangle$

$\langle \text{while-}s \rangle ::= \text{I did this while } \langle \text{condition} \rangle \langle \text{header-end} \rangle$
 $\{ \langle \text{statement} \rangle \} [\text{It didn't work, but I knew why } \langle \text{header-end} \rangle$
 $\{ \langle \text{statement} \rangle \}] [\text{In the end, I did this instead } \langle \text{header-end} \rangle$
 $\{ \langle \text{statement} \rangle \}]$
 $\text{That's what I did } \langle \text{sentence-end} \rangle$

$\langle \text{repeat-}s \rangle ::= \text{I did this } [\langle \text{number} \rangle \text{ times} | \text{once}] \langle \text{header-end} \rangle$
 $\{ \langle \text{statement} \rangle \} [\text{It didn't work, but I knew why } \langle \text{header-end} \rangle$
 $\{ \langle \text{statement} \rangle \}] [\text{In the end, I did this instead } \langle \text{header-end} \rangle$
 $\{ \langle \text{statement} \rangle \}]$
 $\text{That's what I did } \langle \text{sentence-end} \rangle$

$\langle \text{global-declaration-}s \rangle ::= \text{Yes, } [\text{I mean}] \text{that } \langle \text{identifier} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{call-function-}s \rangle ::= \text{I } [\text{also}] (\text{did} | \text{made} | \text{caused}) \langle \text{identifier} \rangle \text{ of } \langle \text{argument-list} \rangle$
 $\langle \text{sentence-end} \rangle$

$\langle \text{call-function-each-}s \rangle ::= \text{I } [\text{also}] (\text{did} | \text{made} | \text{caused}) \langle \text{identifier} \rangle \text{ of each} [\text{of}]$
 $\langle \text{argument-list} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{call-function-and-assign-}s \rangle ::= \langle \text{identifier} \rangle (\text{did} | \text{made}) \langle \text{identifier} \rangle$
 $\text{of } \langle \text{argument-list} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{call-function-each-and-assign-}s \rangle ::= \langle \text{identifier} \rangle (\text{did} | \text{made}) \langle \text{identifier} \rangle$
 $\text{of each} [\text{of}] \langle \text{argument-list} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{java-class-import-}s \rangle ::= \text{I enchanted } \langle \text{identifier} \rangle \text{ with } \langle \text{java-identifier} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{java-constructor-call-}s \rangle ::= \text{I woke up } \langle \text{identifier} \rangle$
 $\text{with } \langle \text{identifier} \rangle \text{ and } \langle \text{argument-list} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{java-method-call-s} \rangle ::= [\text{I told } \langle \text{identifier} \rangle] \text{ I asked } [\langle \text{identifier} \rangle]$
 $\langle \text{java-method-invocation} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{java-method-invocation} \rangle ::= \text{about } \langle \text{argument-list} \rangle (\text{so}|\text{if}|\text{what}|\text{how}) [\langle \text{pronoun} \rangle]$
 $\langle \text{java-identifier} \rangle$
 $| \text{about } \langle \text{identifier} \rangle \text{ made } \langle \text{java-identifier} \rangle$
 $| \text{about } \langle \text{identifier} \rangle \text{ with } \langle \text{argument-list} \rangle \text{ of } \langle \text{java-identifier} \rangle$
 $| (\text{what}|\text{if}) \langle \text{identifier} \rangle [\text{with } \langle \text{argument-list} \rangle] (\langle \text{is} \rangle|\langle \text{has} \rangle) \langle \text{java-identifier} \rangle$

$\langle \text{java-field-set-s} \rangle ::= \text{I } (\text{gave}|\text{sold}) \langle \text{expression} \rangle \text{ to } \langle \text{simple-expression} \rangle \text{ of } \langle \text{identifier} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{java-field-get-s} \rangle ::= \text{I } (\text{took}|\text{got}|\text{stole}) \langle \text{simple-expression} \rangle \text{ of } \langle \text{identifier} \rangle$
 $\text{and } [\text{I}] \text{ gave } \langle \text{pronoun-o} \rangle \text{ to } \langle \text{identifier} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{print-s} \rangle ::= \text{I } [\text{quickly}] (\text{said}|\text{sang}|\text{wrote}) [\text{that},|:]$
 $\langle \text{expression} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{comment-s} \rangle ::= \text{By the way, } \langle \text{Almost-Anything} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{array-assignment-s} \rangle ::= \text{On } \langle \text{ordinal-expression} \rangle \text{ of } [\text{the}] [\text{book}] \langle \text{identifier} \rangle$
 $\text{I } (\text{wrote}|\text{scribbled}|\text{noted}) [\text{about}|\text{what I knew about}] \langle \text{expression} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{array-retrieval-s} \rangle ::= \text{On } \langle \text{ordinal-expression} \rangle \text{ of } [\text{the}] [\text{book}] \langle \text{identifier} \rangle$
 $\text{I read about } \langle \text{identifier} \rangle \langle \text{sentence-end} \rangle$

$\langle \text{array-init-s} \rangle ::= [\text{Today}] \text{ I found a book } (\text{named}|\text{titled}) \langle \text{identifier} \rangle [\text{today}]$
 $\langle \text{sentence-end} \rangle$

$\langle \text{statement} \rangle ::= \langle \text{array-init-s} \rangle | \langle \text{array-retrieval-s} \rangle | \langle \text{array-assignment-s} \rangle$
 $| \langle \text{comment-s} \rangle | \langle \text{print-s} \rangle$
 $| \langle \text{java-field-get-s} \rangle | \langle \text{java-field-set-s} \rangle$
 $| \langle \text{java-method-call-s} \rangle | \langle \text{java-constructor-call-s} \rangle | \langle \text{java-class-import-s} \rangle$
 $| \langle \text{call-function-each-and-assign-s} \rangle | \langle \text{call-function-and-assign-s} \rangle$
 $| \langle \text{call-function-each-s} \rangle | \langle \text{call-function-s} \rangle$
 $| \langle \text{global-declaration-s} \rangle | \langle \text{repeat-s} \rangle | \langle \text{while-s} \rangle | \langle \text{if-s} \rangle$
 $| \langle \text{assignment-s} \rangle | \langle \text{increment-s} \rangle$

8 Functions

$\langle function \rangle ::= \text{I learned [about] } \langle identifier \rangle [\text{with } \langle list-of-identifiers \rangle] \langle header-end \rangle$
 $\quad \{ \langle statement \rangle \}$
 $\quad \text{That's about } \langle identifier \rangle [\text{with } \langle identifier \rangle] \langle sentence-end \rangle$

$\langle main-function \rangle ::= \text{Today I learned [[about] } \langle identifier \rangle] \langle header-end \rangle$
 $\quad \{ \langle statement \rangle \}$
 $\quad \text{Your faithful student, } \langle identifier \rangle [\langle sentence-end \rangle]$

9 Modules

$\langle c-style-module \rangle ::= \text{Dear Princess Celestia: } \langle identifier \rangle \langle header-end \rangle$
 $\quad \{ \langle function \rangle \}$
 $\quad \langle main-function \rangle$

$\langle wrapped-module \rangle ::= \text{Dear Princess Celestia: } \langle identifier \rangle \langle header-end \rangle$
 $\quad \text{Today I learned [about] } \langle identifier \rangle \langle header-end \rangle$
 $\quad \{ \langle function \rangle \}$
 $\quad \text{Your faithful student, } \langle identifier \rangle [\langle sentence-end \rangle]$

$\langle program \rangle ::= \langle c-style-module \rangle \mid \langle wrapped-module \rangle$