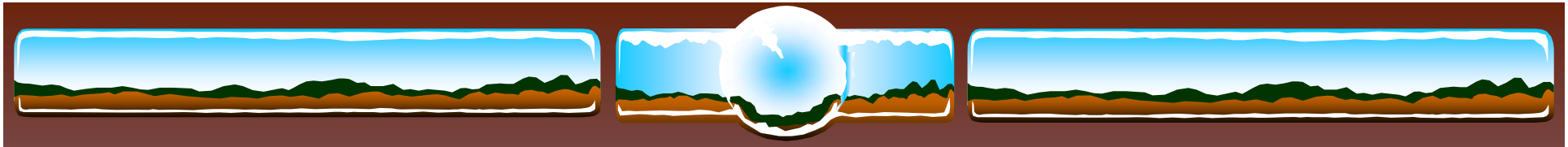
Nancy Swigert part 2

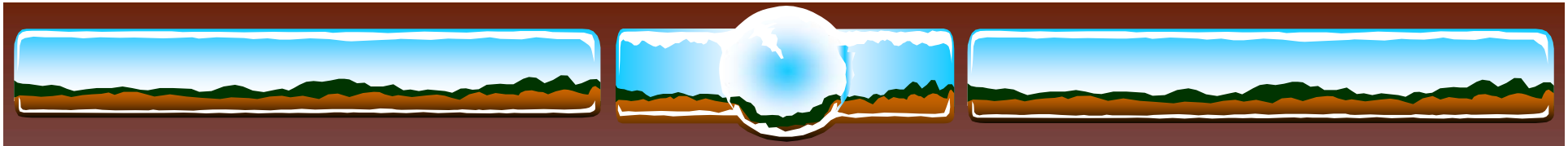
Reading Fluency Disorder



When is fluency important?

- When should we pay attention to fluency?

- As soon as the child can read connected text – don’t wait to address fluency until the child is in 3rd or 4th grade

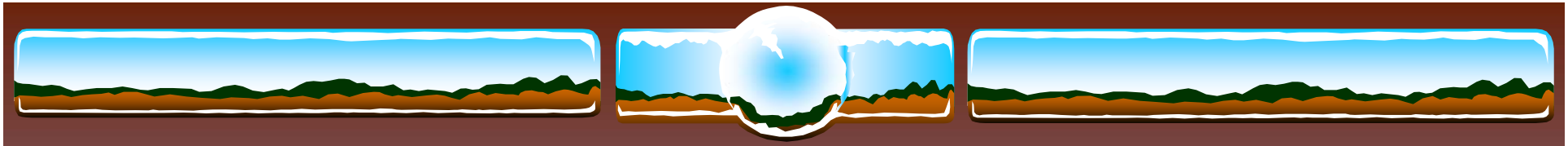


Evaluation of literacy skills

- Reading
  - Accuracy
  - Rate
  - Sight word vocabulary
  - Word attack skills, particularly in timed condition
  - Comprehension (silent, oral)
  - Phonemic Awareness
  - Rapid Naming
  - Working memory/phonological memory
- Spelling (No time for this today)
- Written language (but that's another seminar!)

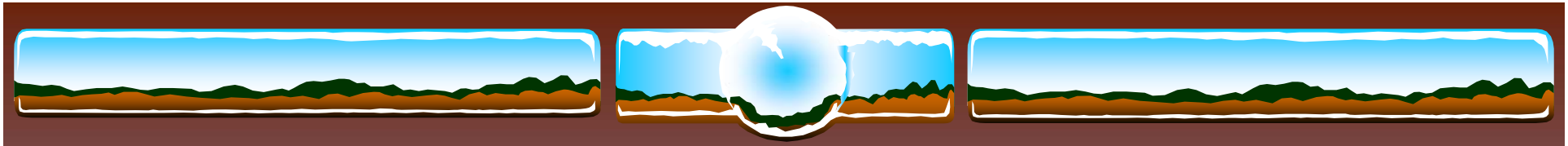
Evaluating reading

- Gray Oral Reading Test
  - Rate
  - Accuracy
  - Fluency
  - Comprehension



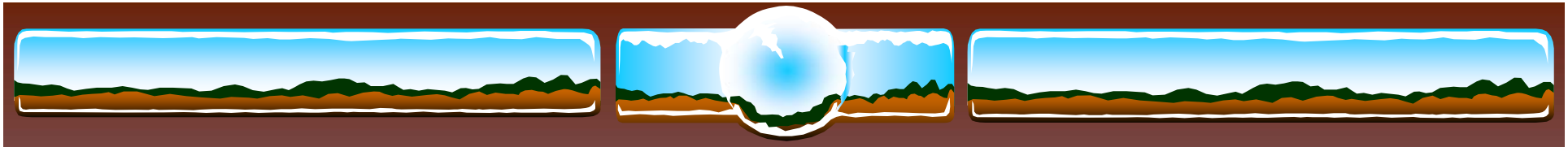
Evaluating Reading

- Diagnostic Achievement Battery
  - Alphabet/Word Knowledge
  - Reading (Silent) Comprehension
  - Story Comprehension (auditory comprehension)



Evaluating Reading

- Woodcock Reading Mastery Test
  - Reading Cluster
    - Visual-Auditory Learning
    - Letter identification
  - Basic Skills Cluster
    - Word Identification
    - Word Attack
  - Reading Comprehension
    - Word Comprehension
    - Passage Comprehension

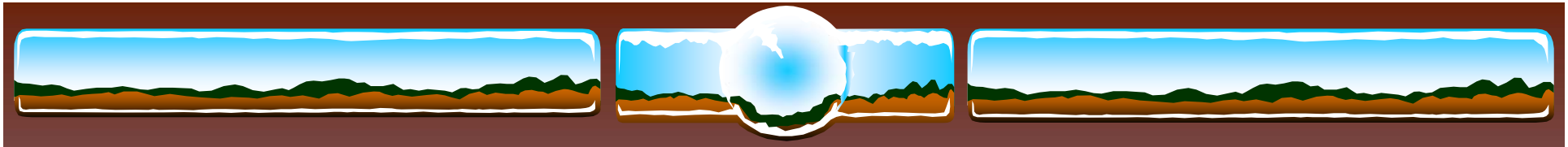


Evaluating Reading

- Test of Word Reading Efficiency
  - Sight Word Efficiency
  - Phonemic Decoding Efficiency

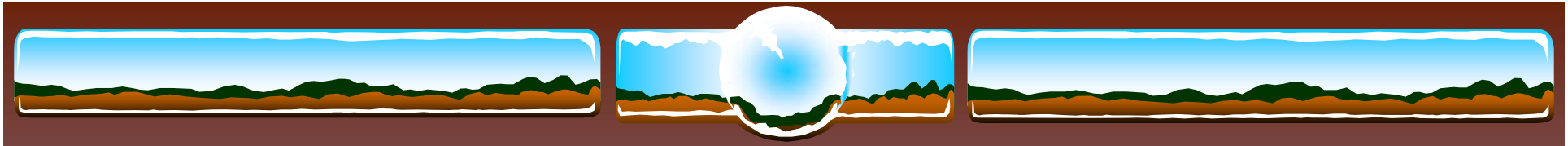
Evaluating Rapid Naming

- Comprehensive Test of Phonological Processing
  - Phonological Awareness
    - Elision, Blending, Phoneme reversal, Segmenting, Sound matching
  - Phonological Memory
    - Digits, Non-words
  - **Rapid Naming**
    - **Colors, pictures, letters, digits**



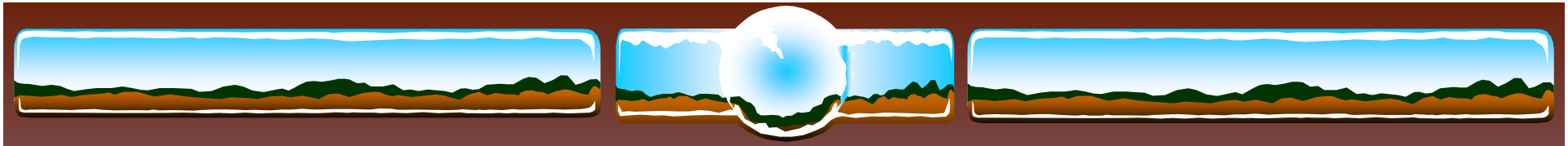
DIBELS

- Dynamic Indicators of Basic Early Literacy Skills
- Hood and Kaminski
- University of Oregon
- Materials available on-line and downloadable



DIBELS

- **Dynamic Indicators of Basic Early Literacy Skills**
- The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) are a set of standardized, individually administered measures of early literacy development.
- They are designed to be short (one minute) fluency measures used to regularly monitor the development of pre-reading and early reading skills.
- The measures were developed upon the essential early literacy domains discussed in both the National Reading Panel (2000) and National Research Council (1998) reports to assess student development of phonological awareness, alphabetic understanding, and automaticity and fluency with the code.



DIBELS

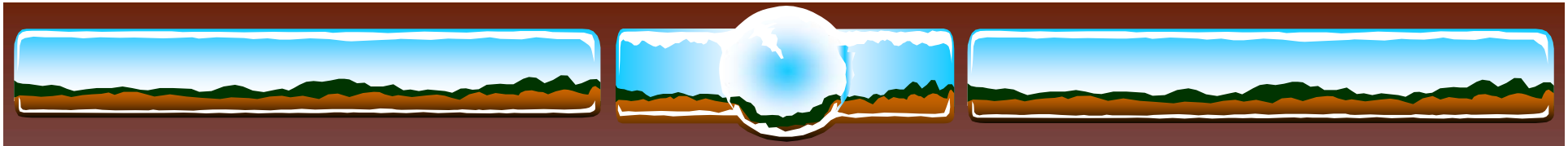
- Each measure has been thoroughly researched and demonstrated to be reliable and valid indicators of early literacy development and predictive of later reading proficiency to aid in the early identification of students who are not progressing as expected.
- When used as recommended, the results can be used to evaluate individual student development as well as provide grade-level feedback toward validated instructional objectives.

DIBELS

- The DIBELS website is located at http://dibels.uoregon.edu/.
- It includes descriptions and tutorials on each of the measures, technical reports, logistical information on implementing DIBELS in a school, and contact information for trainers.
- The measures themselves are available free to download from the website and use
- (http://dibels.uoregon.edu/measures/materials.php).

DIBELS Data System

- The DIBELS Data System (http://dibels.uoregon.edu/data/index.php) is a web-based database which allows schools and districts to enter their DIBELS data online and generate automated reports.
- The Data System is a fee-based service. The cost is $1 per student per year, usually invoiced near the end of the school year.

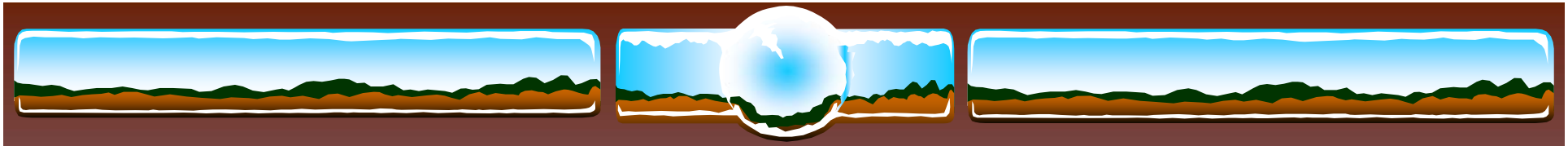


DIBELS

Two kinds of assessment tools

- The benchmark assessment materials are the measures to give to all students three times per year.

- The progress monitoring materials are used for more frequent assessment of students whose performance needs to be closely monitored to ensure they are making adequate progress. The progress monitoring materials can also be used as alternate forms of the benchmark probes.



DIBELS Progress Monitoring Materials

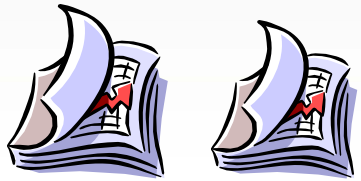
- *ISF: Initial Sound Fluency*
- PSF: Phoneme Segmentation Fluency
- NWF: Nonsense Word Fluency
- ORF: DIBELS Oral Reading Fluency 1st Grade
- ORF: DIBELS Oral Reading Fluency 2nd Grade
- ORF: DIBELS Oral Reading Fluency 3rd Grade
- ORF: DIBELS Oral Reading Fluency 4th Grade
- ORF: DIBELS Oral Reading Fluency 5th Grade
- ORF: DIBELS Oral Reading Fluency 6th Grade
- WUF: Word Use Fluency - K and 1st Grades
- WUF: Word Use Fluency - 2nd and 3rd Grades

Obtaining an oral reading rate

- WPM
- WCPM (example on GORT page)
- Normative data – Hasbrouck & Tindal (1992)
- AIMS data base

Analyzing errors – miscue analysis

- Performing a miscue analysis can help describe the types of errors the student is making – (p.18)
- Can help you fit the student into a "type" of dysfluency (which can guide your treatment) (p. 19)

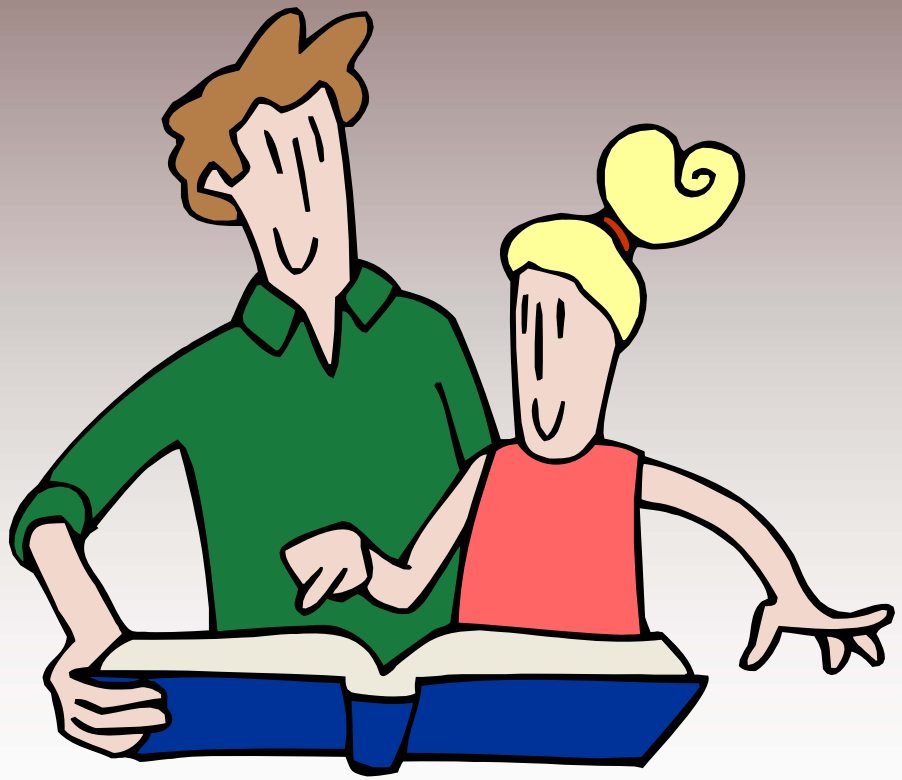


Example of miscues marked on a reading passage	
The dog barked ↓	Rising or falling inflection
was	Repetition
~~was~~ saw	Substitution
~~surely~~ serly	Mispronunciation
~~was~~ saw (sc)	Self-correction
(was)	Omission
The man/was	Pause (one per second)
The ^ man big	Insertion
was H	Examiner help given
The dog barked. He saw	Punctuation ignored
perched	Had to sound it out I
perched T	SLP told student the
DK	Child states, "I don't

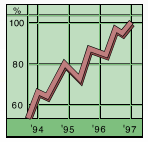
Example of miscues marked on a reading passage

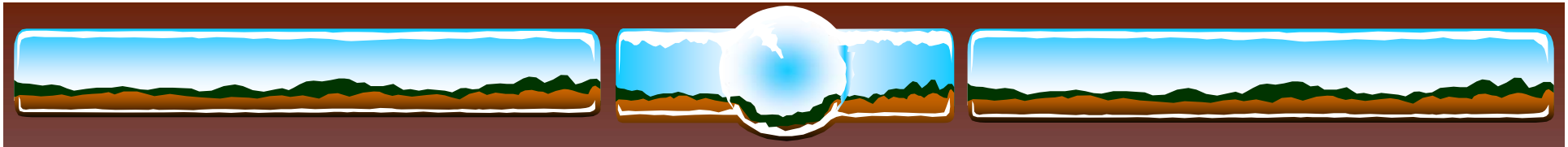
Early one morning, mother woke up and got dressed. She woke up her the little girl and her little boy and told them to hurry and get dressed. Mother cooked hairy sc breakfast while the children dressed. She packed a lunch for them to take along. Everyone T ate quickly DK T because they were so excited exkated. They put on/their coats and their hats and grabbed DK T their lunches. Today was the field trip to the farm! filed

Let’s try one….



- See last page of your handout for the text of the passage being read
- Score miscues
- Fit into Berninger category
- Use Hoyt’s description

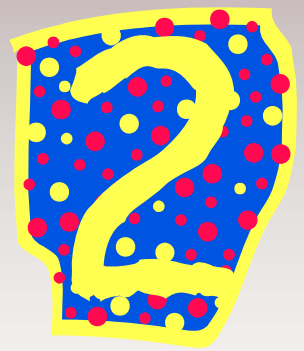




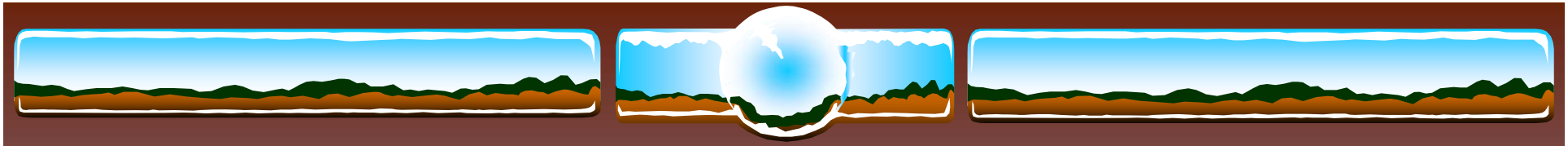
Treating Reading Fluency

	Develop basic phonological awareness skills	Address phonological awareness skills to achieve automaticity	Use activities to improve fluency of reading
Adequate phonological awareness skills and poor rapid naming/fluency Fluency only		X	X
Poor phonological awareness and poor rapid naming/fluency Double Deficit	X	X	X

Single or double deficit?



- Analyze the child's test scores and determine if single or double deficit



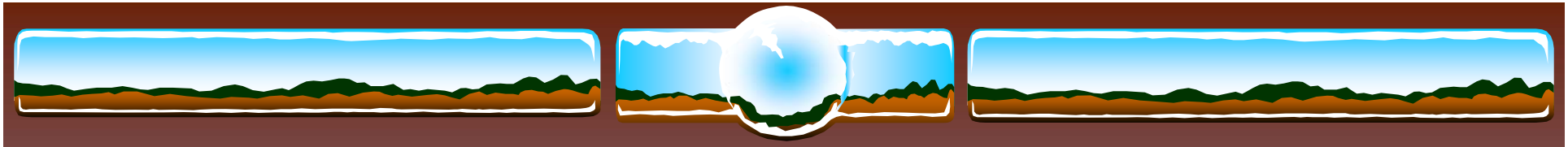
Do you treat these two students differently?

- FLUENCY ONLY
- Use phonological awareness materials, but:
  - Student should complete the activities multiple times to build automaticity
  - Then student should complete activities under time constraints

- DOUBLE DEFICIT
- Build phonological awareness skills first to level of accuracy
- Then, build automaticity

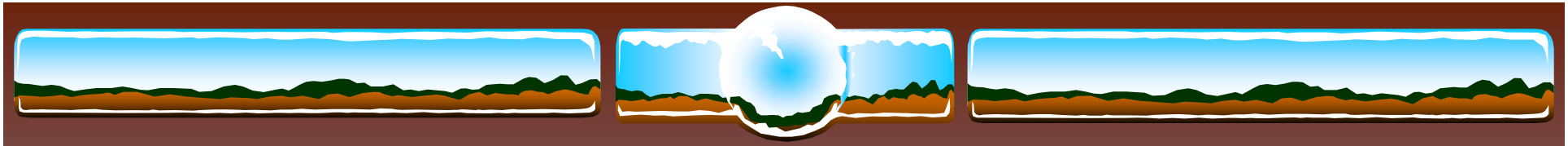
Creating time pressure to “force” automaticity

- Counting up
  - Select given number of stimuli and time how long it takes student to complete these
  - Goal is to shorten time of subsequent trials
- Counting down
  - Use a timer that has audible alarm
  - Determine a preset time (e.g. one minute)
  - Student completes the activity and sees how far they can get



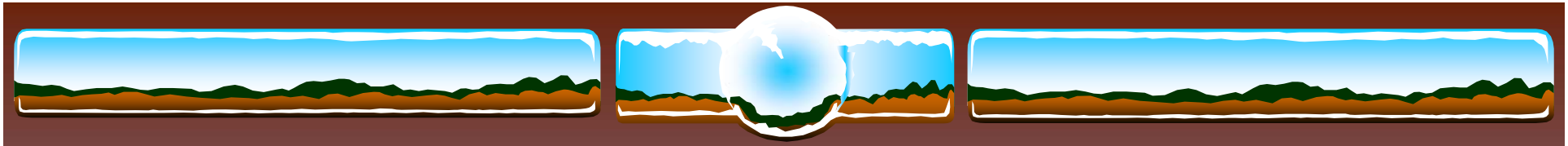
A sneak peek at intervention

- Tomorrow morning's session focuses on strategies to improve reading fluency
- What do we know, in general, about treating fluency?



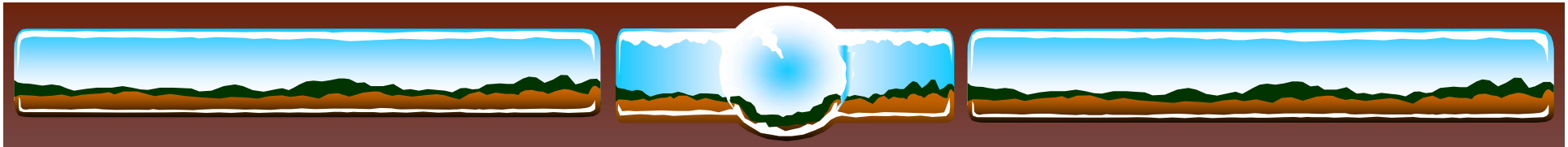
What do we know about treatment? Fluency

- Guided oral reading has a consistent and positive impact on word recognition, fluency and comprehension
- Works with non-impaired readers at least through grade 4, as well as on students with reading problems through high school



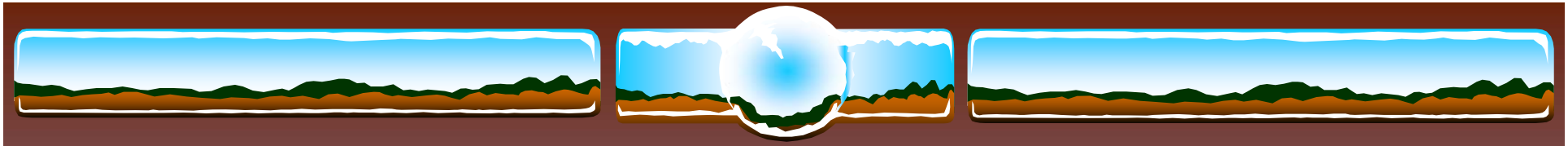
What do we know about treatment? Fluency

- Slower readers' gains in fluency were predicted by naming speed
- Poor readers with deficits in naming speed show improvements in reading speed more slowly than do poor readers without deficits in naming



What do we know about treatment? Fluency

- Research has not yet demonstrated that having students read silently on their own has any impact on amount of reading or reading achievement

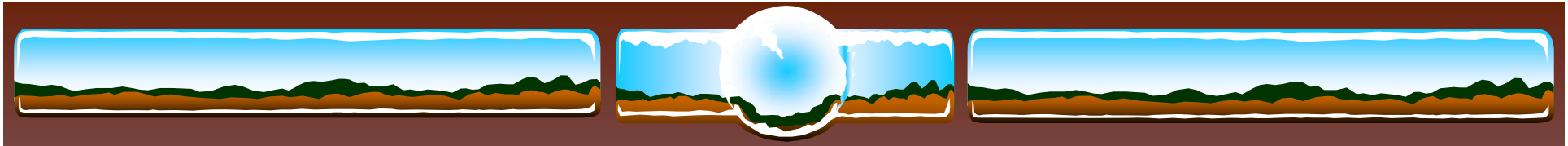


Treating fluency

- Wolf & Bowers' suggestion of what might be impaired
  - connections between phonemes and orthographic patterns, at word or sub-word levels
  - quality of orthographic codes stored in memory
  - amount of practice needed before adequate connections are made

Treating fluency –what do we need to do?

- Improve connections between phonemes and their orthographic patterns and between word parts and words and their orthographic patterns
  - Onsets and rimes
  - Prefixes and suffixes
  - Whole words
- These connections must occur automatically

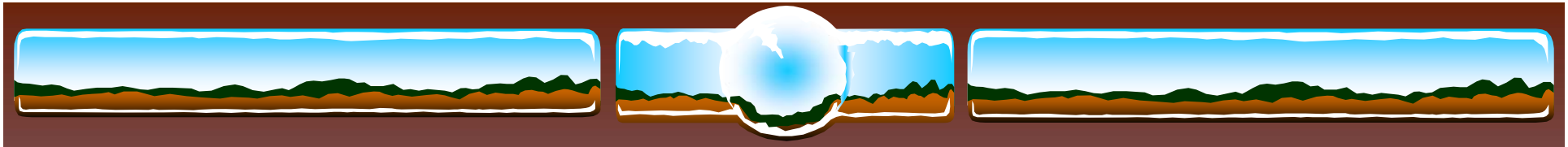


Treating fluency –what do we need to do?

- Improve the quality of the orthographic codes the student can hold in memory
  - e.g. alternative spellings
- Provide ample practice for these connections to become automatic

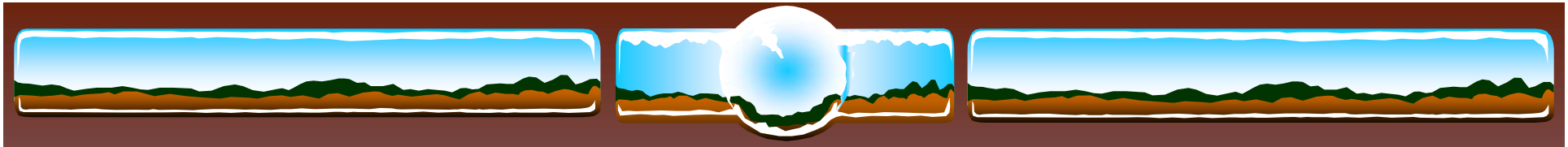
Improving the speed and accuracy of connections

- Establish visual orthographic images (VOI) (Apel & Swank, 1999)
- Mental images of morphemes, syllables or words
- Developed in memory by repeated successful experience decoding words
- In normally developing readers, as few as four exposures needed to develop VOI



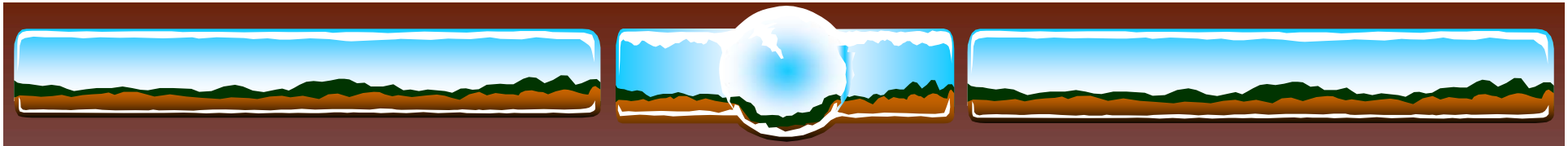
Improving the speed and accuracy of connections - Semantics

- Dysfluent readers cannot afford time to process different meanings of a word they have read (Wolf, Miller & Donnelly, 2000)
- Students with rich vocabulary, easy access to multiple meanings, can retrieve information more quickly



Improving the speed and accuracy of connections - Semantics

- Words with multiple meanings
- Word webs (see samples next two slides)
- Use of vocabulary in lessons



Improving Fluency – Repeated Reading

- Reading research is oldest, most frequently cited, most researched method for improving fluency
  - Based on premise that fluent readers are those who decode text automatically, leaving attention free for comprehension
- Goals of repeat reading
  - Increase reading speed
  - Transfer that improvement to subsequent material
  - Enhance comprehension with each successive reading