




Guiding Science Inquiry through Children's Books & the 5E Instructional Model

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Workshop Take Home Messages

- Children's literature help engage students
- 5E Instructional Model fosters different learning styles
- Science inquiry allows all students to excel
- Science inquiry is adaptable and approachable
- Science inquiry helps guide future lessons






What is Science Inquiry in the Classroom?

Student Centered Approach

Who has control over...	Student	Teacher
Question	✓	
Procedure	✓	
Outcome	✓	

- ✦ Very open ended!
- ✦ Students take ownership of their work
- ✦ Provides team building experiences
- ✦ Engages all students and builds confidence in sharing ideas
- ✦ Requires more active facilitation by the teacher






What is Science Inquiry in the Classroom?

Teacher Centered Approach

Who has control over...	Student	Teacher
Question		✓
Procedure		✓
Outcome		✓

- ✦ Provides clear goal and expectation
- ✦ Very structured
- ✦ Students learn how to follow a scientific procedure
- ✦ Guides students to a goal and focuses their work

What is Science Inquiry in the Classroom?

Student & Teacher Centered Approach

Who has control over...	Student	Teacher
Question		✓
Procedure	✓	
Outcome	✓	

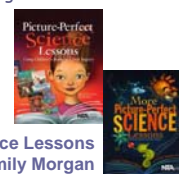
- ✿ Provides a clear goal
- ✿ Students solve a problem with a variety of solutions
- ✿ Provides team building experiences
- ✿ Engages all students and builds confidence in sharing ideas



What is the 5E Instructional Model?

- 🔍 Engage - personally involve students in the lesson
- 🔍 Explore - students' questions drive explorations
- 🔍 Explain - students communicate what they have learned and correct misconceptions
- 🔍 Elaborate - challenge students to apply what they have learned
- 🔍 Evaluate - determine how students have progressed

Remember... keep things simple!
 The 5Es are a simple sequence of instructions.
 Move freely around the 5Es as you go.



Picture-Perfect Science Lessons
 by: Karen Ansberry & Emily Morgan



ENGAGE



The Great Kapok Tree
 by: Lynne Cherry



The Magic School Bus: In the Rainforest
 Scholastic



Planet Earth: Jungles
 Discovery Education



EXPLORE

What We Know	What We Want To Know
Animals Bugs	How many endangered species live in the rainforest?
Rain!! Water!! Damp	How much does it rain during the year?
Poisonous plants and animals	What are the different layers of trees?
Vines!!	Where is it dark?
Tall trees!! Different layers of trees	How many rainforests are on Earth?
Green	Where are they?
Oxygen!!	What animals are at the bottom of the food chain? Top?
A lot of colors	What is the biggest animal?
Organisms survive in different ways	Do people live in rainforests?



EXPLAIN

Rainforest Layers Book

Subjects: Science, Language Arts, Art

Students explain what each layer of the rainforest looks like, feels like, and who lives there.



ELABORATE

Rainforest Layers Bulletin Board

Subjects: Science, Art

Students use their books to create a bulletin board for the classroom.



ENGAGE



The Chimpanzee I Love: Saving Their World and Ours
by: Jane Goodall

Chimpanzee
Disneynature



EXPLORE & EXPLAIN

What makes chimpanzees special?

Subjects: Science, Math, Language Arts

Students compare their hands, feet, and body to a chimpanzee.



ELABORATE

How are chimpanzees adapted to the rainforest?

Subjects: Science, Math

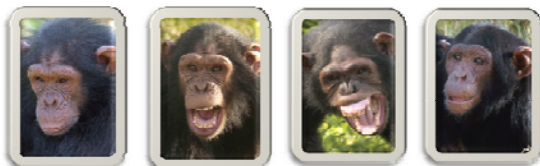
Students watch video clips and discuss chimp adaptations.

<http://disney.go.com/disneynature/chimpanzee/>



EXPLORE & EXPLAIN

How do Chimpanzees Communicate?
 Subjects: Science, Music, Language Arts
 Students compare their hands, feet, and body to a chimpanzee.



<http://disney.go.com/disneynature/chimpanzee/>



EXPLORE

Where do chimpanzees live?
 Subjects: Science, Geography
 Students identify Africa and color in the areas where chimps live.

Who are chimpanzee neighbors?
 Subjects: Science, Language Arts, Arts
 Students produce identification cards for the animals that share the rainforests with chimpanzees.



EXPLORE EXPLAIN ELABORATE EVALUATE

Chimpanzee Report
 Subjects: Science, Language Arts, Geography, Math, Arts
 Students complete a paper naturalists and report on chimpanzees.



<http://buzzingaboutsecondgrade.blogspot.com.au>



EXPLORE EXPLAIN ELABORATE EVALUATE

Chimpanzee Shape Poems
 Subjects: Science, Language Arts, Arts
 Students create a shape poem using their report information



Workshop Take Home Messages

Scientific inquiry and the 5Es foster different learning styles

The 5Es allow all students to excel

Inquiry with the 5Es is adaptable and approachable

Scientific inquiry help guide future lessons



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Other Resources:
Magic School Bus
<http://www.scholastic.com/magicschoolbus>

PBS
<http://pbskids.org>
<http://www.pbs.org/teachers>

BrainPop & Brain Pop Jr
<http://www.brainpop.com>
<http://www.brainpopjr.com>

Thank You Very Much

