### What is Science Inquiry in the Classroom?

#### Student Centered Approach

<table>
<thead>
<tr>
<th>Who has control over...</th>
<th>Student</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Procedure</td>
<td>✔️</td>
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</tr>
<tr>
<td>Outcome</td>
<td></td>
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</tr>
</tbody>
</table>

- 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

#### Teacher Centered Approach

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

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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 & Teacher Centered Approach

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- 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

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

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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Fairfield Country Day School
emily.cathcart@fcdsmail.org

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