

Individual Project #1-Interactive PowerPoint Activity

Subject: Science, Structures of Life Unit

Grade: Third Grade

Objectives: The Students Will:

- Complete an Interactive PowerPoint activity as a review to the "Structures of Life" Unit
- Work cooperatively to complete the PowerPoint activity
- Use classification systems to describe groups of living things
- Compare and contrast differences in the life cycles of living things
- Compare ways that living organisms are adapted (suited) to survive and reproduce in their environments
- Analyze how parts of living things are adapted to carry out specific functions

Standards:

I.1.E.1
Generate questions of the world based on observation

I.1.E.2
Develop solutions to problems through reasoning, observation, and investigations

I.1.E.6
Construct charts and graphs and prepare summaries of observations

II.1.E.4
Develop an awareness of and sensitivity to the natural world

II.1.E.5
Develop an awareness of contributions made to science by people of diverse backgrounds and cultures

III.2.E.1
Explain characteristics and functions of observable body parts in a variety of animals

III.2.E.2
Classify familiar organisms on the basis of observable physical characteristics

III.2.E.3
Describe life cycles of familiar organisms

III.2.E.4
Compare and contrast food, energy, and environmental needs of selected organisms

III.2.E.5
Explain functions of selected seed plant parts

III.3.E.1
Give evidence that characteristics are passed from parents to young

Standards: **III.4.E.2**
Explain how physical and behavioral characteristics of animals help them survive

in their environments

III.5.E.1

Identify familiar organisms as part of a food chain or food web and describe their feeding relationships within the web

III.5.E.2

Describe the basic requirements for all living things to maintain their existence

III.5.E.3

Design systems that encourage growing of particular plants or animals

III.5.E.4

Describe positive and negative effects of humans on the environment

**Required
Materials:**

Materials:

- Foss science kit
- Pencil for note taking and score keeping
- PowerPoint hand-out for note taking and scoring (see attached)
- Computer lab with Internet access
- Data projector connected for presentation purposes
- Computers with sound capabilities and headsets
- Set of PDA devices for variation on lesson
- Classroom response system for variation on lesson
- Smartboard for a variation of the lesson format

Additional Online Resources:

- http://www.delta-education.com/science/foss/mscpdfs/bess_beetles.pdf
- <http://www.fossweb.com/modules3-6/StructuresofLife/index.html>
- <http://bugguide.net/node/view/127>
- http://www.deltaeducation.com/downloads/samples_foss/StructuresSummary.pdf
- http://www3.nsta.org/main/news/stories/science_and_children.php?news_story_ID=51806
- <http://www.enchantedlearning.com/paint/subjects/invertebrates/crustacean/Crayfishprintout.shtml>
- <http://www.enchantedlearning.com/subjects/invertebrates/mollusk/gastropod/Snailprintout.shtml>
- <http://www.geocities.com/sseagraves/allaboutsnails.htm>
- http://www.backyardnature.net/snail_sl.htm
- <http://pbskids.org/zoom/activities/sci/sockseeds.html>

**Classroom
Organization:**

There are several ways that this activity can be organized. You might present to the whole group at one time, in small groups or have students work through the activity individually. For all configurations you will need to create an icon link on the desktop for students to launch the program.

**Classroom
Organization:**

Whole Group:

- Note taking page for each student

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- One computer in the classroom wired to an LCD projector
The teacher will navigate through the PowerPoint beginning with Bess Beetles and continue to Crayfish, Snails and ending with the Seeds category. The score for this activity can be kept on any available board in the classroom. Students can use their note taking sheet to record any information that they need for the upcoming test.

Small Groups or Pairs:

- Paper and pencil for each student to individually keep score
 - Note taking page/score sheet for each student
 - Several computers with the PowerPoint icon on the desktop
- Students will work together to select the categories and answer the questions. They will need to work cooperatively to be sure that all opinions are valued and considered.

Individually:

- Paper and pencil for each student to individually keep score
- Note taking page/score sheet for each student
- Several computers with the PowerPoint icon on the desktop
- Headsets for each computer

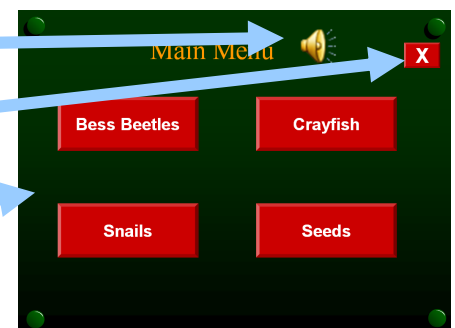
Students will work on the own computer individually. If problems or questions arise they can use the classroom procedure of placing the red cup on top of the monitor to indicate that they need help.

Screen Shots:

Choose this button to listen for directions.

Choose this button to close the program.

Choose one of these buttons to select a category.



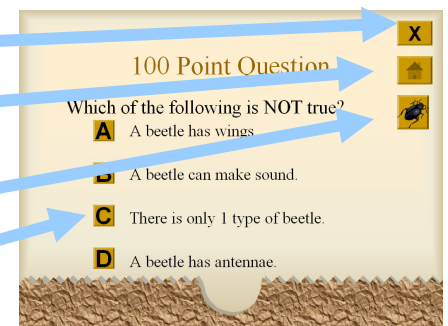
Screen Shots:

Choose this button to close the program.

Choose this button to return to the main menu.

Choose this button to answer another question.

Choose one of these buttons to select an answer



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Choose this button to close the program.

Choose this button to return to the main menu.

Choose one of these 4 buttons to return to your current category.



Procedures:

*The screen shots above detail the button use on the 3 main types of slides.

1. Begin by telling the students that they will be participating in an interactive activity to test their knowledge on the Structures of Life unit that they have just completed.
2. The students will need to keep track of their score and take any necessary notes on the attached sheets. (slide hand-outs) Remind the students to keep an accurate record of their score as the game proceeds.
3. Before students begin the game, review the button use on the 3 main types of slides (see above) Tell students that the "x" will quit the program at any time.
4. The students should be seated at their computers to begin.
5. Click on the desktop icon to launch the interactive PowerPoint presentation.
6. The audio directions will automatically begin when the program is started.
7. Click the "Click Here to Begin" button when the audio is finished.
8. On the next slide, click on the sound icon at the top of the screen to listen to the directions.
9. Choose one of the four categories to begin. You will return to this menu to select a new category until all areas have been tested.
10. Each category has 4 questions with point values ranging from 100-400 points. Click on the 100 point question first and answer the question. If the question is answered incorrectly, return to the question and continue until you choose the correct answer. Points are only awarded for answering the question

correctly on the first attempt.

11. After all questions in the category have been answered correctly, return to the main menu, by clicking on the home button and choose a new category.

Follow the above procedure until all categories and questions have been answered.


Variations:

- The PowerPoint could be placed on a PDA device. Be sure that the device has Documents to Go in order to run the program.
- A Student Response System could be used when presenting the PowerPoint in a whole group situation. Students could key in their answers and keep their score individually after checking to see the correct response.
- A SmartBoard could be used during the directions portion of the lesson or throughout if presented in a whole group situation.

100 Point Question

Which of the following is NOT true?


- A** A beetle has wings.
- B** A beetle can make sound.
- C** There is only 1 type of beetle.
- D** A beetle has antennae.



200 Point Question

Which of the following is NOT a structure of a beetle?


- A** Abdomen
- B** Swimmerets
- C** Thorax
- D** Horn



300 Point Question

Which part of the beetle is this?


- A** Thorax
- B** Middle
- C** Abdomen
- D** Horn



400 Point Question

What do the elytra protect?

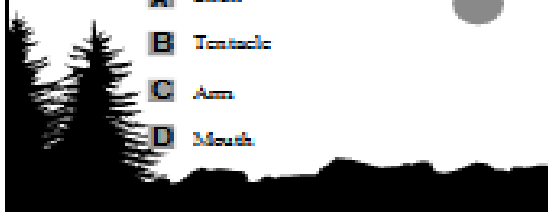
- A** The Heart
- B** The Flying Wings
- C** The Abdomen
- D** Both B and C



100 Point Question

Which of the following is NOT a structure on a snail?


- A** Shell
- B** Tentacle
- C** Arm
- D** Mouth



200 Point Question

Which part of the snail is this?

- A** Tentacle
- B** Shell
- C** Mouth
- D** Foot



300 Point Question

What is the function of the tentacles?

- A** To find food
- B** To sense light
- C** Both A and B
- D** None of the Above

400 Point Question

What does a snail do if it gets too dry?

- A** Estivate
- B** Germinate
- C** Hibernates
- D** Molt

100 Point Question

What does a seed need to complete its life cycle?

- A** Air
- B** Food
- C** Light
- D** All of the Above

200 Point Question X

Which part of the plant produces the fruit?

- A** Flower
- B** Root
- C** Cotyledon
- D** Seed Coat

300 Point Question X

The seeds are found in what part of the plant?

- A** Root
- B** Fruit
- C** Flower
- D** Stem

400 Point Question X

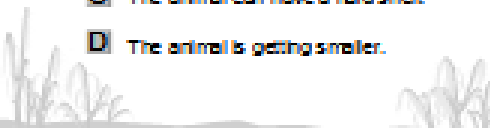
What is the most important thing a seed needs to germinate?

- A** Light
- B** Air
- C** Water
- D** None of the Above

200 Point Question

What is a disadvantage of molting?

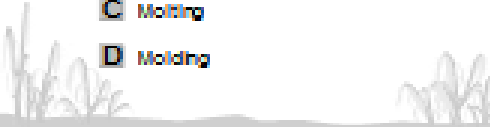
- A) The animal is soft right after molting.
- B) The animal can now grow bigger.
- C) The animal can have a hard shell.
- D) The animal is getting smaller.



100 Point Question

What is the name of the process when an animal sheds their shell?


- A) Changing
- B) Switching
- C) Molting
- D) Molding



300 Point Question

Which part of a crayfish holds the eggs?

- A) Legs
- B) Long Swimmerets
- C) Arms
- D) Pincers



400 Point Question

What part of the crayfish is this?

- A Pincer
- B Swimmerets
- C Walking Legs
- D None of the Above

