

## **Cluster 1: Energy and Eating Evaluation Baseline Findings 3/20/02**

### **Method**

- Conducted 20 interviews which included 23 visitors. Interviews were conducted on Thursday, 3/14, Friday, 3/15 and Saturday, 3/16/02. Female (N=11) and Male (N=9). Adults (N=19) and Teen (N=1).
- Visitors were all cued and recruited randomly. Total time with visitors (recruiting, looking at cluster, interview) took an average of 20-30 minutes. All visitors were given a small gift at the end of the interview.
- Most cued visitors looked at all of six exhibits.
- Cluster 1 included Energy from Death with media element, Oxygenator, Termitarium, Termite gut, Hot Pile, Bacteriapolis, introductory label, pithy statements, and section title. (Digital images of cluster available)

### **Findings**

#### What theme or common idea did visitors see?

- All but one person thought the group of exhibits had a common theme or idea.
- 13 of the 20 thought the common theme or idea was about energy (N=11) and eating (N=2).
- 3 of 20 thought the common theme or idea was about the circle/cycle of life.
- 2 of 20 thought the common theme or idea was about decomposition.
- 1 of 20 thought the common theme or idea was about micro-organisms.
- 1 of 20 did not think there was a common theme or idea.

### **Things to Consider**

- We were not as successful with this evaluation compared to the Pre-Test evaluation of Energy/Eating. It was more obvious to visitors in the Pre-test that the exhibits were about energy/eating (Pretest: 17 of 20 compared to Cluster 1: 13 of 20). It also took visitors a little more probing to get them to a common theme/idea.
- When visitors said energy they usually were referring to
  - capturing sunlight as energy
  - needing energy to survive/live
  - there's energy in everything
  - different organisms making and getting energy
  - energy transferal/recycling energy from one thing to another

#### How closely visitors thought our theme matched the group of exhibits.

- 15 of 20 visitors thought the group of exhibits fit the theme closely.
- 5 of 20 visitors thought the group of exhibits fit the theme partly.

### **Things to Consider**

- For the visitors who thought the group of exhibits fit partly the reasons they gave were:

- they felt some exhibits didn't fit as well or at all
- the group of exhibits was missing something (e.g. representation of larger animals)
- thought the theme was more about cycle of life and death than energy
- Please refer to data sheet for visitor responses.

Which exhibits did visitors feel didn't really fit the theme as well?

- 6 of 20 thought Bacteriapolis didn't fit the theme as well.
- 3 of 20 thought Oxygenator didn't fit the theme as well.
- 2 of 20 thought Termite gut didn't fit the theme as well.
- 2 of 20 thought Termitarium didn't fit the theme as well.
- 1 of 20 thought Hot Pile didn't fit the theme as well.

**Things to Consider**

- For Bacteriapolis, most visitors mentioned that they didn't understand what was going on or happening, wanted to know what was in there, and what energy had to do with it. Some also commented that there wasn't much to do beyond looking at it. Most wanted more of an explanation. The good news is that we are planning on doing most of these things in the next prototype, so we're on track.
- For Oxygenator, the only reason visitors really gave was that it seemed a bit out of place with the rest of the exhibits or that it was the only one who got energy from the sun and the rest of the exhibits got in energy from death. Beyond that we couldn't get them to further articulate why.
- For the rest of the exhibits, I don't feel we need to be too concerned about them.

Did visitors notice title, introductory label, and pithy statements?

Title

- 5 of 20 saw and read the title, "Life Uses Energy"
  - 14 of 20 did **not** see or read the title, "Life Uses Energy"
  - 1 of 20 saw but says they didn't read it

Introductory Label

- 8 of 20 did see and read the introductory label
  - 9 of 20 did **not** see or read the introductory label
  - 3 of 20 saw but decided not to read the label

Pithy Statements

- 10 of 20 did see and read some if not all of the pithy statements
  - 8 of 20 did **not** see or read the pithy statements
  - 2 of 20 saw but decided not to read the pithy statements

### Things to Consider

- Half of the visitors saw and read the pithy statements. A little less than half saw and read the introductory label. The title was the least seen or read of the three.
- About the title, some people mentioned the font color and type was hard to notice and read against the images. I think it would be a good idea to make it more obvious either through color, placement or size.
- Title should be closer to the introduction text so they are seen and read together.
- The pithy statement that mentions “photosynthesis” should be formatted like the other two to avoid confusion of possibly appearing to be another introductory label. This pithy statement appeared to be the least referenced in the responses, we might want to reconsider using another pithy statement instead.

### Pithy Statements: what did visitors think they were communicating?

- 15 of 20 visitors thought the statements were about energy (N=13) and importance of sun/light (N=2).
- 2 of 20 visitors thought they were about the cycle of life.
- 2 of 20 visitors thought they were about conservation/environmental responsibility.
- 1 of 20 visitors could not say what it was about.

### Things to Consider

- When visitors said energy they usually were referring to
  - capturing sunlight as energy
  - needing energy to survive/live
  - there's energy in everything
  - different organisms making and getting energy in different ways
  - energy transferal/recycling energy from one thing to another
- Please refer to data sheet for visitor responses

### Introductory Label: what did visitors think it was communicating?

- 17 of 20 thought the label was about different aspects of energy.
- 2 of 20 thought the label was about how all living things need to survive.
- 1 of 20 thought the label was about the cycle of life.

### Things to Consider

- This finding is very similar to the Pre-Test 1(18 of 20 visitors) who thought the label was about different aspects of energy.
- When visitors said energy they usually were referring to
  - capturing sunlight as energy
  - needing energy to survive/live
  - life using energy
  - there's energy in everything/breaking down energy
  - different organisms making and getting energy in different ways

- energy transferal/recycling energy from one thing to another
- things eating to get energy
- Please refer to data sheet for visitor responses.

Did visitors think title accurately described the theme of this group of exhibits?

- 15 of 20 visitors thought the title accurately described the group of exhibits.
- 5 of 20 visitors did not think the title accurately described the group of exhibits.

**Things to Consider**

- Some visitor title suggestions were:
  - Extracting Energy
  - Everything in the world needs energy to survive
  - Many Sources of Energy
  - Cycle of Life or Food Chain

**Next Steps/Action Items (decided at meeting on Wednesday, March 20, 2002)**

- Change title from “Life Uses Energy” to “Life Needs Energy” --MM
- Suspend title over center of cluster area, most likely over Oxygenator—MS/JB
- Place introductory label perpendicular to partition, to give it more physical visibility—MM/MS/JB
- Move title “Life Needs Energy” closer to introductory text so visitors see them in close proximity --MM
- Revise “photosynthesis” pithy statement or select an alternate pithy statement to include for revision—LG/MM

date	#	M /F	Age	Group	ESL?	Time in	time out	com mon theme?	what is the theme?	Code	How does it fit theme?	why does it fit?	Code	fits most?	fits least?	Code
Thurs 3/14/2002	1	F	13-17	2 T (13-17)	N	1:35	1:50	Y	Decomposing. Saprotrophes or whatever they're called - I think that's what they call them in my bio book - decomposing things. (AE?) Recycling Nutrients, nitrogen cycles of different organisms. (AE?) No.	Decomposing things, nitrogen cycles	FP	I'd put something more in about plants and animals. Bigger things. It all fits pretty well into the theme, but it needs more. I got the decomposing theme but there should be more with plant and animals to really fill it out.		Oxygenator shows photosynthesis and how it has the waste processes built in, bacteriopolis and RC and HP and Termites - they all fit into the theme well. It just needs something more.	They all fit but they all kind of cover the same thing. Hot Pile and RC seem alike because they both break down stuff. Maybe they should be more different from each other.	
3/15/02	2	F	40s	2 A	N	12:40	1:15	Y	How everything interacts with everything else. I'm not sure if I'm objective, I'm familiar with compost pile and bugs and what they do but a city kid might not be. (Common idea?) It's all energy connected where one feeding off each other, old chain of life thing.	Energy, feeding off each other	FC	It's just all connected, (RC) was excellent I like how it showed the things broken down in that (media).		RC, HP, O how energy works and the heat of the compost pile and the bugs.	Bacteriopolis. I didn't know what it was in dirt, earth, is it the inside of something. Say this is a slab of earth that's deteriorating. It wasn't clear what the material was in, I get that bacteria grow in and are colorful.	Bacteriopolis: what's inside there, what's going on
3/15/02	3	M	20s	2 A	N	1:20	1:45	Y	Life, the cycle of life (more?) breaking down of bacteria and animals, capturing sunlight as energy. Using dead things or sunlight to create life.	Life cycle, capturing sunlight as energy	FC	If your theme is using energy to create life then all these things show that. It covers sunlight and energy. The bubbles are neat in (O), the by products with the dead animals.		All pretty much fit, they all talk about energy and needing it and how its used.	T-gut didn't fit as well (more?) I don't really know how to explain it, its more of a feeling I have. Bacteria thing is just there, it's not interactive might not capture the interest of children. I'm a teacher so I have a feeling. (As an adult, does it fit the theme?) oh, yeah it fits once people read it, they need to read it though.	T-gut: gave no concrete reason beyond a feeling
3/15/02	4	F	40s	2 A+K (F-11)	N	2:05	2:30	Y	Well, Energy. (AE?) No. It's about energy.	Energy	FP	Well, that one (TG) showed how termites have to have bacteria to digest their food to get energy. HP and B showed bacteria, one of them gets energy from light, one from eating rotten food (points to HP) - same with that one -O it gets it from rotten food, too. bugs are getting energy from differene things. I guess I wasn't thinking about energy when I looked at O but it says it right there on the label that it is making energy. They all seem similar but this one (O) seems a little different.	Oxygenator seemed a little different than others	I think they all fit. The ones that stick out are RC - getting energy from rotten things because it's different. Eating wood seems more normal than eating dead things.	I don't think any of them don't fit. (Any that don't fit as well?) No.	Oxygenator didn't seem to fit as well
3/15/02	5	M	30s	4 A	N	2:35	3:07	Y	Absolutely, theirs life and the smaller side of it like the microbes. One part of life using the other part of life to survive. Definitely all about energy and how organisms use energy to survive.	Life using otherlife to surviveand needing energy to survive	FC	(RC) one feed off of the other, (O) you see the bubbles coming out and (HP) feel the warmth and the termites eating wood. Energy is an untangible thing to most, the young kids probably won't get it. (AE?) All these things are sharing, swopping energy, that's what these exhibits are about.		Note: we decided to drop this question because visitors were including most exhibits.	Bacteria. Everything else is active that's not. I look at it but nothing happens, if I want that I'll go to an Art museum. (what about it didn't fit?) I don't quite understand it. I would say the green side is alive and the red doesn't seem like it is. More explanation would be helpful.	Bacteriopolis: not active, needs more of an explanation, I didn't understand it.
3/15/02	6	M	40s	1 A	N	3:00	3:20	Y	They show the energy in everything from decaying. (AE?) Oxygen is stored and released and manufactured.	Energy in everything	FC	They really give a good idea			This one (RC) kind of. It's not really producing energy noticeably. It's just insects eating another animal. (AE?) No.	R/C because it's not producing energy noticeably.
3/15/02	7	M	40	2 A+K (F'10)	N	3:25	4:00	Y	K: The red and green bacteria and the plant make oxygen. Termites, how they emit gases and protect the ozone and (HP) and bacteria make energy. M: All about life, what, how things feeding on each other. How red bacteria covers earth and green bacteria killed other bacteria.	Life feeding on eachother	FC	K: well plants give off oxygen and it's energy. And (RC) animals live off of dead things. Bacteria get energy in (HP) and (Bact). M: All connected together, they depend on each other the plants create their own energy and we eat them. We depend on each other and everything is connected to live.			No, none. (how about some that didn't fit as well?) No, its good.	
Fri 3/15/2002	8	F	18-20s	2 A	N	3:40	4:05	Y	Life. The way things that roam this earth get energy. And how we transfer food that lets us live. Different organisms and their means of getting and making energy.	Diff. organisms getting and making energyand transferring that food.	FC	I think they all fit pretty closely. (why?) you give different examples of the theme dead animals, oxygen, termites, bacteria and so on.		RC even though it's gruesome and the termites one and the plan - but I'd probably say be more direct with the microscope one (TG).	TG. Maybe it should show them eating. They're just moving around in there. The bacteria one was probably the least fitting. (didn't say why)	T-gut: should show them (microorganisms) eating. Bacteria was least fitting, gave no reason.

Sat 3/16/02	9	F	30s	3 A+K	Y, fluent	11:50	12:07	Y	Bacteria and how they produce oxygen, energy and their involvement in energy separation. (AE?) That's what I feel the theme should be.	Energy and energy separation	FP	Because it should include other animals, bigger animals like sheep, bird, humans--go bigger than light and bacteria.	Need to include larger animals like sheep, birds and humans.	No. (how about some that didn't fit as well?) No. I think they're good just show bigger animals.	
3/16/02	10	M	18-20s	2 A	N	12:05	12:25	Y	Microorganisms exist and affect everything around us. And the smaller organisms that affect life around us. You should add something about organisms with nitrates.	Microorganisms that affect everything around us.	FC	That probably sounds like a more better way to say it.		The plant one. Most of them have to do with bacteria and insects and so it sort of seemed out of place here. It fits in, it says it creates oxygen but still it just didn't fit quite as well.	Oxygenator doesn't seem to fit quite as well.
3/16/02	11	F	40s	2 A	N	12:30	12:45	N	No, not really. I'm not good at this stuff, science, you should've asked him (husband).	N/A	FC	Because each one shows how each one makes energy from the compost pile to this one that makes oxygen (O).		No, they all fit well.	
3/16/02	12	F	50s	4 A+T	N	12:45	1:00	Y	Other than decomposing? Yeah, I'd say it's about decomposing and regenerating.	Decomposing and regenerating	FC	Because it gives a good example. Like TG shows that food goes to the stomach in order to survive. And the plant one, I don't know if that one fits in as well, but the others, yes, they fit in well.	Oxygenator not sure about fit.	I don't think any didn't fit. Bacteriopolis didn't really do it for me (as an exhibit). I mean, you read it, but it doesn't really do it for me. (K: others?) they all fit in and it is more obvious with all of the others how things work.	
3/16/02	13	M	30s	2 A+K	N	1:00	1:14	Y	Energy (more?) Energy for life to live. (AE?) No. K: how the world lives (more?) how we breathe, something dies and something else eats it. The deeper you go in the pile, it gets hotter because the things are working. F: Obviously, cycle of using death creating life and food; exchange of bacteria and oxygen and how its all related.	Energy for life to live	FC	They show all types of energy like photosynthesis, energy form decaying birds to micro organisms in pile.		Bacteria. It needs more indepth explanation as to what's occurring there. (anything specifically?) I don't actually get what's happening there.	Bacteriopolis: needs more indepth explanation, I don't get what's happening there.
3/16/02	14	F	20s	5 A+K (M-10)	N	1:17	1:35	Y		Cycle of life and death and creating food	FC	K: Because as the birds and sparrows get eaten it gets energy and how the bugs are working. F: Fits closely, I have a science background so I can see the connection. I'm surprised he (kid) was able to make the connection as well.		Bacteriopolis. The one on the end (Oxygen pollution) fit, but the other one (large one) didn't. That one makes food but I don't get the energy part or connection.	Bacteriopolis: I don't get the energy connection part with the long one.
3/16/02	15	F	30s	1 A	N	1:30	1:45	Y	Energy. That the energy is being recycled from one thing to another all the way around.	Recycled energy from one thing to another	FC	That ties in the energy (points to graphics) it would help to have a visual. I had them stand up in my third grade class and be the tree, the sun, and so forth and pass energy on to each other. So, more of a visual tying in together would be good if you wanted to make it really obvious		Bacteriopolis. If I had to choose one, I would choose that one, but I still think it fits.	Bacteriopolis fit the least
3/16/02	16	M	18 - 20s	3 A	Y, fluent	2:15	2:35	Yes.	Everything causes some new form of energy that comes up, be it the beetle that eats the rat, the bacteria that grows. But hot pile is just about everything creating new energy, not just the initial starting place of being born.	Everything creates a new form of energy	FC	Because certain exhibits... this (RC) says when things die their carcass is left and they create new organisms with their body.. Oxygen one is killing off organisms to create oxygen and support multiform organisms, composting is when it is decomposed, they create new energy like fertilizer and then plants can use it.		The termite one. When you show the inside, maybe it makes sense. But when you showed the termites eating wood, the theme went away a little.	Termitarium: termites eating wood makes the theme go away a little.
3/16/02	17	F	40s	5 A+K (2A, 3K)	N	2:35	3:00	Yes.	We're working on ecosystems at home and it's all talking about breaking down the garbage of the world and turning it into energy. (About?) The recyclers.	Energy and the recyclers breaking things down	FC	They're all about that.		Oxygen and bacteriopolis aren't really recyclers but they still fit into it energywise.	
3/16/02	18	M	20s	cl a s s A	N	3:04	3:20	Yes.	The life cycle coming around, deaths role in nature broken down into scientific explanation--I like it.	Life cycle	FP	Most of these show the role of waste or death but then you have this plant here. To me its more about death and the cycle of life. Termites eating dead tree. Another title than life uses energy, could be the energy of things that are lifeless.	More about cycle of life and death than energy use.	No. No they fit together as a group. Oxygenator doesn't really fit the group of exhibits (why?) That gets energy from sun and everything else gets stuff that was once alive and they get energy from death.	Oxygenator: cuz it gets its energy from the sun and everything else from gets energy from death.
3/16/02	19	F	20s	3 A	N	3:23	3:45	Y	Environment. (more?) dealing with natural science, life processes other than mathematics. I think its important to understanding our life cycle and the role. I really liked this (O) it makes so much bubbles, I've never seen that before.	Life cycle and its role in our lives	FC	Because in every single one you relate it to how things use energy. It would add a good complement to what's here already. The stuff here is so mechanical and technical it's a good complement.		No, all fit the theme.	
3/16/02	20	M	40s	2 A+K	N	3:46	4:07	Y	Yes, stuff that eats other stuff to make food or eat food and they become something else. Circle of life, decaying things used other ways.	Circle of life, things eating other decaying things	FP	Like the termites, I'm not sure how much they termites fit the theme. Termites eat wood and make poop, that's what that says to me. (R/C) is about that from death comes life. Compost fits in well with theme, energy from pile.	Termites and R/C don't seem to be about energy as much as compost.	Like the termites, I'm not sure how much they termites fit the theme. Termites eat wood and make poop, that's what that says to me. (R/C) is about that from death comes life. It's a question of food coming in and food coming out, not so much (energy) use. (AE?) No.	Termitarium: not sure how it fits the theme. Termites eat and poop.

did you notice the graphics?	title	intro	statements	statements are about...	Code	intro is about...	Code	does the title fit?	Code	suggestions/comments
yeah, I notices all of them but I didn't read them.	0.50	0.50	0.50	They're talking about cellular respiration in animals and photosynthesis in plants and how they break down to make energy.	Energy: cellular respiration, photo. In plants and how they break down energy	[see previous response - they read all of the graphics as statements.]	Energy: cellular respiration, photo. In plants and how they break down energy	yes. (why?) because that's what it's about.	1	
Title: didn't notice Traits of life (ToL) title but I read the Life Uses Energy (LUE). Drop the title and LUE down and leave space between the image and the words. ToL is readable but not noticable. Statements: I like the picture, I'd do a more energetic font and color.	1.00	1.00	1.00	Energy or fuel is essential for living, I guess. Everything has a source, energy from sun, it all connects to the sun.	Energy: essential to life and everything has a source of energy and connects to the sun.	Same thing, all living things need energy and then you should give some exhibit options as well, you can pull in the exhibits in the introduction.	Energy: all living things need it	yeah, very well, it's good.	1	
Title: the color of ToL font is too light. Hard for kids to read ToL. Intro: notice it but didn't read it.	1.00	0.50	1.00	We all depend on everything, everything co-dependes on things. Interdependence, how things depend on each other, the circle of life.	Interdependence, circle of life	(read it again) Getting energy from food and different sources. Everything needs food, an input into their system.	Energy: getting it from food and different sources	yeah, only after I look at this section, but at first I don't know if I'd get it with out seeing exhibits first. (suggestions) no.	1	
Mostly. I didn't really look at the posters. I hand't really looked at them (statement snad posters and title) at all.	0.00	0.00	0.00	Life uses energy	Energy: life uses energy	I don't know - the same thing I guess - that life uses energy.	Energy: life uses energy.	yeah, that's good.	1	
[no comments]	0.00	0.00	1.00	Light is important, I guess. Everything is based on light. I'm not sure that it's 100% true, some things can live without light. I think.	Light: everything is based on light.	(read it) I'm not sure. (thinks) Some things use the sun to live, chain of life with sun and energy.	Energy: chain of life with sun and energy	yeah, but it's difficult to explain or show energy. Think of other ways to show energy in physical ways.	1	
The title kind of blends into it.	0.00	1.00	0.00	You should stop cutting down all those trees. Cut down on pollution, watch for the greenhouse effect - the plants in the sea are giving most of your oxygen to you.	Conservation/Environmental responsibility	It just shows how what we eat or produce creates energy. All living organisms produce energy.	Energy: all living things produce energy. What we eat produces energy.	Yes. Because we need energy. We're life and we need to burn energy from plants, animals and littler things (like the smaller plants and bacteria) use energy, too.	1	
[no comments]	1.00	1.00	1.00	That animals depend on each other to live and how all living things need energy to survive and food.	Energy: how all living things need energy to survive and food.	(Re-reads) Pretty much that there are different sources of energy. The sun gives energy and other living organisms get their energy from other things. Like a ladder of things, interms of what needs what to live/exist.	Energy: there are diff. sources of energy and the sun gives energy.	yes, cuz all is about how life uses energy to live and it's connected together.	1	
The sunflowers stood out a lot more than the other ones. I looked at them.	0.00	0.00	1.00	They're factual statements. It's a given, really, or common knowledge. What they're saying is that the sun fuels life and it makes food and without it, we wouldn't have life.	Sun fuels life and it makes food, there would be no life without it.	How life uses energy. Different ways that we obtain our energy or the way that bugs or plants do. It just gives examples.	Energy: how life uses energy and the different ways we obtain it.	Yes. Because things that are living use different sources of food. Life gets energy from the thing that it is taking in. And life uses energy to move and survive.	1	

Title: I just saw it now. Intro: noticed it but didn't read that carefully. Statements: noticed but no read	0.00	0.50	0.50	I guess, sun is main source of energy, importance of sun. Sunlight can transmit energy and be converted to different forms.	Energy: sun is main source of energy. Sunlight transmits energy and converts it to diff. forms	All living things need energy to live and get energy in different ways.	Energy: all living things need energy and get it in different ways.	No, you can come up with a better title. This is about energy transformed or converting it in different ways. What you see is energy being transferred not used; you don't concentrate on how energy is passed from one thing to another.	0
I probably would have noticed the statements more if they had been placed differently.	1.00	0.00	1.00	It is giving you the basic statement - different ways of energy being produced - it kind of comes from the mission statement for the entire area.	Energy: diff. ways its produced	It is more inclusive than the other ones (the statements). It should be closer to an exhibit about energy coming from light, though, since that's what it is talking about. (K: what's it about?) how energy is created from light. Light is one type of energy.	Energy: how energy is created from light, it's one type of energy.	Yeah, but I don't see the energy being used. I don't actually see the energy itself but the exhibits show the energy being extracted. It shows the means of energy but it is very difficult to show the actual energy as it is being extracted. So the title, 'extracting energy' would be more appropriate.	0
I was looking at exhibits so I wasn't paying attention to those.	0.00	0.00	0.00	I don't get much from it. I don't stop to think about this stuff.	N/A	(reads) Everything uses energy to survive. (AE?) No.	Energy: everything uses energy to survive.	Yeah, that sums it up pretty well.	1 With compost it would be cool to see what each level does.
Yes. The sunflower statements I noticed but I didn't notice the others.	0.00	0.00	1.00	That we need to protect our earth in order to survive.	Conservation/Environmental responsibility	How everything survives. (AE?) No. It's not doing something for me, though, I want something more from it. Or I'm not understanding it all the way or the words are not put together in a way that really say something. I don't know. It just says what it says but that's it.	How everything survives	Life uses energy. That part is good. Traits of life needs more work, but yes, 'traits of life' applies as well.	1 How everything survives. (AE?) No. It's not doing something for me, though, I want something more from it. Or I'm not understanding it all the way or the words are not put together in a way that really say something. I don't know. It just says what it says but that's it.
[no comments]	0.00	0.00	0.00	Living things depend on energy to survive.	Energy: living things depend on it to survive	That everything needs food to survive and light from the sun to survive.	Everything needs food and light to survive	yes, describes it perfectly, it's actually what these things are about.	1
[no comments]	0.00	0.00	0.00	K: I don't get much from it. F: I think you have gotten better with these exhibits about what the point is vs. the ones that are out there, so that's really good.	Energy: life uses energy and it comes from different things.	K: You need to just get to the point so we know what it is about. F: Life uses energy, energy comes from different things whether its from photosynthesis, or other organisms.	Energy: life uses energy and it comes from different things.	K: you need something more exciting. (suggestions?) No, not right now. F: Yes, it accurately describes them but from a kid's perspective, I agree they should be more exciting, interesting. (suggestions?) Nope, not really.	1
[no comments]	y	y	y	That's we're all connected. Everything is connected.	Interconnectedness of things	The connection between the food web and how we're all connected and then the statement got into the specifics.	Connection between food web and us	yes. It makes me think of how everything is connected, again.	1
I noticed this one (light uses energy statement) but not the others (other statements) because we were so interested in the termites. I didn't read the title.	n	y	y	Energy is the reproduction of other organisms.	Energy: allows reproduction of other organisms	I guess the circle of life. That everything needs each other. If one thing dies, it'll still get used as energy or food.	Energy: dead things still get used as energy and food, circle of life.	Truthfully, I don't like that phrase because I would go with something like, "Everything in the world needs energy to survive". Of course, it's not as long winded as mine, so maybe it's okay.	0 Suggestions: RC media piece - I would slow it down a little. The speed was a little fast. The track ball doesn't slow it down - it just lets you either see frame by frame or go to different places in it. I'd slow down the whole thing so you could really see it happening. The part when the beetles are all there is good but when it gets down to the skeleton, then I want to see it more slowly.
Energy from death is what was stuck in my head the whole time.	n	y	n	Light energy is in these two more (points to O, B) and hot pile - we cover our hot pile at home, so I guess it doesn't need energy from light. (About?) We need the sun's energy to produce the food, oxygen and everything else that we use to survive.	Energy: needs suns energy to produce food, oxygen to survive	If you don't use the sun for your energy, you have to get it from somewhere else.	Energy: if you don't get it from the sun you need to get it from somewhere else.	yes. We use food and everything needs something to survive. Without some kind of energy intake, we're goners.	1
It's good to have them up for teachers and kids but not all will want to read them. People come here to do not so much read.	0.00	0.00	0.00	Energy. (AE?) No. I like them to be there.	Energy	Everything needs energy, but it fails to say that everything either directly or indirectly gets energy from the sun.	Energy: everything needs it	I get the feeling that I'm learning that energy comes from different places, something like "Many Sources of Energy"	0 Everything needs energy, but it fails to say that everything either directly or indirectly gets energy from the sun.
[no comments]	0.00	1.00	1.00	For the first time I feel like termites contribute to the circle of life, that uses energy.	Energy: termites contribute to the circle of life	(reads) Everything uses energy, but from different sources-- to me I see food chain.	Energy: everything uses energy and gets it from different sources	Yes, it's pretty accurate, it's not what I would first think of, it fits nicely. I thought it was more like biological sciences but I think Life Uses Energy is a good, accurate title for this set of exhibits.	1 A couple of aspects that are particularly interesting. I didn't realize that a pile of dirt can make that kind of heat.
[no comments]	0.00	1.00	0.00	Things eat things to get energy. (AE?) No.	Energy: things eat to get energy.	Things eat other stuff to get energy. They talk about getting energy, but they don't talk about how it's used	Energy: things eat to get energy.	No, it's lame. (suggestions?) Cycle of life or Food chain. Something eats something where you get the cycle effect, how bugs eat dead things or bacteria eats waste and make it hot.	0 Things eat other stuff to get energy. They talk about getting energy, but they don't talk about how it's used