



You Can Be a Great Interpreter!

(If you're not one already)

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This document was originally used to train Volunteer Naturalists in the art of Interpretation at the City of Boulder, Colorado. However, it will be useful to anyone striving to improve their skills as an interpretive naturalist.

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What is Interpretation?

“Interpretation” is a term that lots of people in the parks and rec biz throw around lightly, but to most folks the term conjures up images of translators working at an embassy somewhere. Just how is “interpretation” relevant to you and your role at Open Space & Mountain Parks?

Interpretation is an educational style which teaches concepts and stimulates insights through the use of original objects, new experiences and illustrations, instead of just communicating a multitude of facts, statistics and data. Its media may include guided nature walks, exhibits in museums and visitor centers, videos and slide presentations, road-side signs, brochures, articles, pod casts, web pages and social media, activities with children, and more.

An interpreter is a translator between the complex and technical language of science/academia and a lay person who has little familiarity with technical fields but is nonetheless interested. In the case of a park naturalist, you translate the unfamiliar environment of the Colorado Front Range into the concepts and terms of the visitor so he or she can understand it.

As volunteer naturalists, you are first and foremost environmental educators: you teach people about the natural environment of our park and help them to appreciate, respect and care for it. **Interpretation is the delivery system** you will use to share this message. It is also the delivery system you will use to make the human and geological history of the park come alive and speak to visitors across centuries or millennia. This article explains how *you* can do this.

There is nothing complicated or mysterious about interpretation. Many people are interpreters all their lives--that is, good teachers and natural story tellers--without ever learning why they are so good, without ever taking an official class in interpretation. Don't worry about learning the technical words and jargon of interpretation; rather, learn the practical side: how to do it.

Interpreters work with Non-Captive Audiences

Think of interpretation as a series of strategies for teaching an audience that doesn't have to pay attention, but which will be motivated to stay, listen and learn of its own accord as long as the process is enjoyable.

Visitors to our park are not required to listen to the naturalist. You can't give them a bad grade on their visit to the park, or give them a ticket for not listening to you! They are a **non-captive** audience. They are here on their free time to relax and have fun, and **they will listen to you only if you make it worth their while.**

Will visitors pay attention to a boring naturalist presentation? Why should they? They're here in the leisure time. **Visitors will leave the instant you cease to be entertaining, and find something more stimulating to do.**

Contrast this to a student in a class room: YOU in this training class! You are my **captive** audience in class, since you cannot leave the volunteer training course without some form of consequence. If you choose not to pay attention or refuse to come to training, you might not be allowed to volunteer. You won't get your certificate. **So you will try to pay attention to me even if I'm boring or dull or dreary because you want to be a volunteer here at the park!**

Think about your past professors and teachers. Which were good, and why? Which were awful, and why? Were there times when you wished you could walk out of class, or escape into entertaining day dreams? During your volunteer training, you'll get to hear lots of presentations from many different people. What did you like about the good presentations? How could the bad ones have been made more fun and entertaining? Using the training sessions and your past education as positive and negative models, what can you learn about interpretation?

Ten Principles that Guide Interpretation

Good interpretation is based on a number of ideas or principles--mostly common sense--which reflect how people think and learn and what awakens our interest. Here are what I feel to be some of the most important guidelines. Become familiar with these principles since they will help you communicate with park visitors.

1. **Interpretation should be personal.** Interpretation that doesn't relate to the heart, personality, interest, past experience or prior knowledge of the visitor--in other words, something the visitor cares about--will not capture their imagination or hold their attention. We all need a context to understand new information. You must help visitors connect what you show and tell them with something they already know and care about.
2. **Interpretation is much more than just information.** Although interpretation is based on data, it's more than a scattered bunch of factoids and trivia. **It uses information to provoke and stimulate people** to think and feel, to imagine, and to come to new insights. Some naturalists approach visitor education with an *information dump truck*: the more facts, the better. But unless visitors are encouraged to think, imagine and see for themselves, the information is of little value and is quickly forgotten. **Interpretation presents information for the heart as well as the mind.** Good interpretation makes an emotional, as well as a factual, connection.
3. **Interpretation presents whole ideas.** One way interpreters avoid a mere presentation of disconnected facts and data is to base activities on complete ideas (called "**themes**") which provide a contextual framework, or reason, for all those facts.

If you heap on information from the dump truck without relating it to any central idea or message, most of what you say will be ignored or quickly forgotten.

4. **Interpretation isn't information overload.** Research shows that people can only concentrate on **three to five separate ideas** at once. When planning a program, limit your supporting examples to develop your theme to about three or four big pieces. **Arrange your presentation into organized "chunks" or "chapters."**
5. **Good interpretation is relevant to what people are seeing or thinking about.** It should relate to where you are, or have a logical connection to something your visitors did or talked about earlier. It should be clear **why** you have chosen to interpret something, why you have stopped "here" on your nature walk. Make sure they understand the connection.
6. **Interpretation is well-organized, with ideas presented in a logical sequence.** A good interpretive talk, like a joke, needs to be presented with background information first to lay the groundwork for understanding the more complicated material later on. Bad joke tellers screw up the organization of their jokes, and may tell one part too soon or don't provide all the information you need to understand the punch line. Nobody laughs. A badly organized presentation is the same way.
7. **Interpretation is flexible and spontaneous.** You should be able to change what you have planned to reflect the visitors' desires and interests. Avoid memorized "cassette" talks which always sound the same (you'll quickly get bored with your job and the visitors will realize it.) Be able to take advantage of unexpected occurrences (or at least adapt to them with a smile!)
8. **Interpretive activities for children are fundamentally different from activities for adults.** Kids see the world from a different point of view than adults. Different things excite or bore them, and they are often more imaginative, active, playful, spontaneous and uninhibited than adults. Successful programs for kids will tap into youthful interests. Children are seldom excited by watered-down versions of adult programs! A slide show may appeal to adults, but could be boredom incarnate for children. The flip side: adults may feel patronized by a children's program with lots of games.
9. **Interpretation should present accurate information.** As a naturalist, you are in the information business. If you present false information or lie, you will lose credibility and the visitors' respect. It is much better to admit that you don't know!
10. **An experience is worth a thousand pictures.** People are much more likely to remember something by doing or experiencing it than by simply hearing about it. Successful interpretation gives people the opportunity to touch, feel, taste and try things for themselves.

The Interpreter's Tool Kit: Themes

"Themes" are one of your most powerful tools

Interpreters can create memorable and enjoyable presentations filled with meaningful information by presenting **complete ideas which are illustrated and fleshed out by the information**. These ideas, called "**themes**," provide a context and meaning for the facts, a conceptual framework to understand them. In essence, the **purpose of information in a program is to support the theme**. By providing a purpose for the facts, the theme answers questions such as, "Why is she telling us about this?" The information is clearly there for a reason: it's vital to communicate the main or principal idea.

The theme also helps the learner to mentally organize (hence better understand and remember) the information shared by the interpreter. This in turn leaves the visitor with a lasting impression of deep satisfaction superior to a recitation of information. Research shows that visitors are likely to forget most of the details you share with them, but they are very likely to remember the theme!

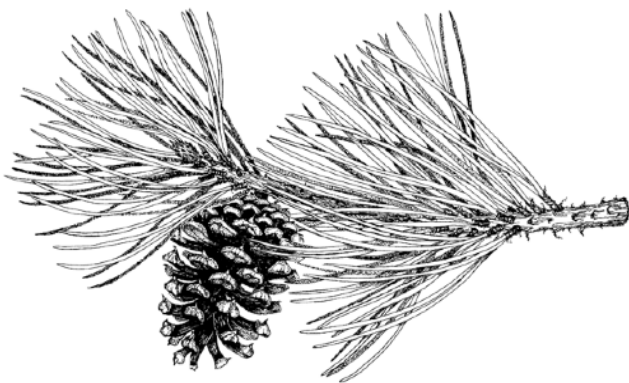
In other words, **your theme should be the most important general idea or the big, main message that you want visitors to learn and remember** after their visit. The theme in turn acts like mental glue: by giving meaning, purpose and a context to the facts, it makes them easier to remember. If visitors remember only that their naturalist knew a lot of facts, but they can't remember or understand any, they have missed out!

Themes and Topics are not the Same Thing

In common language, we use the words "topic" and "theme" interchangeably.

In interpretation, they do not have interchangeable meanings.

1. A "*topic*" refers only to the subject matter or an area of discussion or study. It does not contain within itself any idea, opinion or judgment about that subject matter. Example topics: Animal Homes, Geology, Winter Ecology, Natural Cycles, Pine Trees.



2. A "*theme*" is an **idea expressed about a topic, derived from the topic, and declared as a complete sentence with a verb** (the topic doesn't contain a verb). Whereas you can't argue with a topic, you could argue with a theme statement. For example:

Topic: *Pine Trees*

One possible theme on this topic: *Using a few field marks, it's easy to identify all the different pines of the Rocky Mountains.*

A theme says something about the topic. It makes a statement and contains an idea.

The theme also restricts the focus of the topic to a meaningful bite-sized unit that **helps you decide which facts you want to share**. If you make a presentation based solely on the *topic* "Pine Trees," you may fall into the information dump truck with a disorganized recitation of trivia and factoids about pine trees with no connection to each other, no clear meaning, and of no interest or teaching value for the visitor (I have seen a few naturalists and interpreters do just this.) On the other hand, if you base your presentation around the theme, all the information you choose to share must serve a purpose: it helps people understand the theme, which in turn helps them learn and remember both the big main idea AND the supporting information.

In other words, **the objective of a thematic talk is that people understand and remember the theme - your big, most important idea**. All of the facts, data, statistics, photographs, dates, objects and information that you share during a talk are given with this one objective. Information which doesn't meet this objective should be left out or saved for another talk, since here it will only confuse the central message. (For example, you may know a lot more about pine trees than you share during your presentation, but you choose to leave it for another time since it does nothing to support your current theme about pine trees.)

To the extent that you learn how to communicate through themes, your interpretation will be richer, more easily understood (hence more interesting) and more easily remembered.

Example Themes and How to Create One

A single topic can give rise to hundreds of themes, each of which could be its own presentation with its own approach to the topic. For example:

Your life would be very different if you were a pine tree. (Topic: Pine Trees).
Pines are an ancient group of plants, dating from the time of the dinosaurs. (Topic: Pine Trees).
Healthy pine forests depend on frequent low-intensity fires. (Topic: Pine Trees).
You can find different pines at different elevations in these mountains. (Topic: Pine Trees).
Pines are important resources for wildlife and people. (Topic: Pine Trees).
Pines are well suited for life in cold, snowy places. (Topic: Pine Trees).
Etc. Etc. Etc.

Themes on a particular topic can be general or very specific, depending on what you want to present, the detail of your knowledge, and the level of the visitors' interest. Naturally, the information you would present in your talk to support and illustrate Theme 1 (see next page) would be *very* different from what you would choose to explain Theme 4!



1. Very general: Birds have many adaptations for their way of life. (Topic: Bird Adaptations)

2. General: Forest birds have many adaptations for life in and around trees. (Topic: Bird Adaptations)

3. Specific: Woodpeckers are well adapted to feed and nest in dead trees. (Topic: Bird Adaptations)

4. Very specific: The Lewis Woodpecker has adaptations which make it unique among woodpeckers. (Topic: Bird Adaptations)

Choosing a Theme is Easy

How to decide on a theme to present? Think about the area you interpret. Is there something important about the area that you think visitors ought to know? Are there any user or management problems? Are there any great stories? What are the most interesting things to see? Of these, what are the most important ideas or messages you want people to learn and remember after visiting the site? Deciding which main ideas you want to share will help you determine your themes for the site.

Then, to formulate and state your theme, try completing the following sentence:

"After they've heard my talk, the most important idea the visitors should understand is that _____."

The phrase that you use to fill in the blank is your central idea, your theme. Try it a few times.

"After they've heard my talk, the most important idea the visitors should understand is that gold mining during the last century helped create the landscape we see around Boulder today."

"After they've heard my talk, the most important idea the visitors should understand is that prairie dogs play a vital role in grassland ecosystems, hence their extermination has profound effects on many animals and plants."

Once you have established the main idea or theme of the talk, then you assemble the information you need to develop, illustrate and flesh out that idea.

Any given presentation should have only one main theme since two main themes will confuse everyone (including you). You will all lose track of the talk's point! However, each "chunk" of your presentation (see Principle #4 on p. 4) should have its own subtheme, like a chapter heading, which ties in with and supports the main theme.

Other Interpretive Tools and Tricks

Themes are an important interpretive tool, but there are many other things you can do to make your interpretive presentations more entertaining and memorable. Remember, ideally it should be more fun for the visitor to listen to you than to do anything else. So how can you make your talks fun and interesting?

At this point, I suggest you go back and quickly re-read the ten principles of interpretation on pp.3 and 4. Looking at these afresh will help the next section make more sense.

The following list of strategies, or interpretive "tools," is **not just for use in planned, presentations, but in everything you do**: in every question you answer, everything you point out and share, every activity you do with your visitors. These tools will help you build **bridges of understanding between what visitors already know and the new environment of our park**. Some strategies will work with some groups but not others. You will learn from experience which you feel most comfortable with.

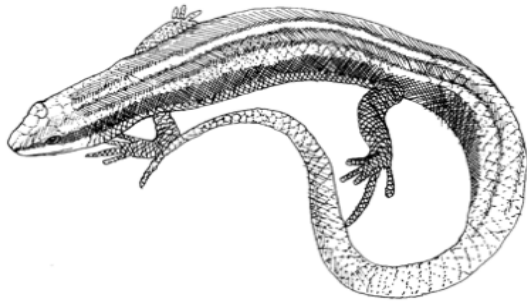
Smile and be Enthusiastic: This may sound obvious, but it is one of the most important parts of working with the public. If you look like you are having no fun and are bored, it will be very hard for your visitors to be interested in you.

Use Simple Language: As an interpreter, your language should be simple and conversational, rather than memorized, artificial, or formal. Avoid throwing around a lot of complex technical or scientific terms unless the group obviously understands these, or unless you define them all (technical words quickly bore most people). **Find another way to explain the concept without the jargon**. In general, I try to avoid plant family names and scientific names unless there is no common name, or unless I can interpret the name for effect or use it as a springboard to explain something (e.g., *Procyon lotor*, the scientific name of the Raccoon, means "Little dog who washes. Cute!").

Here are some example technical terms to **carefully explain or avoid altogether**: raptor, Cretaceous Period, Solanaceae, crepuscular, igneous, succession, canid, Composite (flower), Icterid, trophic level, legume, fuel loading, lithic tool, arboreal, stamen. With kids: habitat, herbivore, ecosystem, biodiversity, pollen, perennial, erosion, species, hunter-gatherer, predator, sod busting, adaptation, entomology, spore. Most lay people won't understand these terms.

Use "You" When Speaking and Writing: Using "you" makes a program or written text more personal (see Principle 1 on p. 3), helps people imagine and reference their own experience, and sounds more friendly and natural. **Definitely** avoid replacing "you" with "one" ("One could see animals here,") or the passive voice ("Animals could be seen here.") These sound boring and academic, and will make visitors feel like they're back at work or in school instead of receiving a fun program. Count how many times I used "you" in this handout!





Encourage Participation: Encourage visitors to think and share their ideas. Give them objects to feel, puzzles to solve about what they see. Ask them to tell about their own experiences if it might be interesting to others. Some visitors may know more than you do! The mountains attract biologists, geologists, artists, foresters, photographers and so on. You can enrich your interpretation by tapping these people and you may learn something yourself.

Questioning: Perhaps the easiest and most important way to encourage visitor participation, asking questions is also one of the most common oversights of beginning interpreters. You are not a lecturer! (If you start lecturing, people will leave). Keep your questions very simple and easy for anybody to answer. Ask, "What are some ways we could tell a bird from a mammal?" or "Touch this moss. What does it feel like?" as opposed to, "Does anyone know what family this wild flower belongs to?" or "Who knows when the first gold was discovered in Boulder County?" Visitors can answer simple questions without taking a risk. As visitors answer your questions, they begin to feel confident and good about themselves. This in turn helps them to open up and participate more. Questions also stimulate interest and creative thought, cause people to reference their own experience, help break the ice and help visitors share their own experiences and thoughts. They can also help you remember things you forgot!

Use Extraordinary Facts: (This should be easy around Boulder!) The Guinness Book of World Records has been popular for decades. Wonder why? People love surprising or shocking information. For example, female prairie dogs share nursing duties for each others' young. The beautiful pinkish sandstone seen in Boulder's homes and gardens was towering sand dunes before dinosaurs ever walked the earth. Did you know that an underground mine fire has been burning for years on a vein of coal beneath the town of Marshal?

Use Mystery and Suspense: As with extraordinary facts, people love puzzles and mysteries (look at the vast quantity of mystery stories sold each year!). There are many ways to inject a little mystery and suspense into your activities. For example, on a guided walk you can tell them something big is coming up, but they'll have to wait and see what it is. You can ask them to solve a mystery on the walk, starting at the beginning and giving them clues along the way. ("How do you think rocks could form like that? You'll see the answer farther up the trail here.") You can ask them questions like, "So what do you think happened next?" or, "Where do you suppose the miners went to?"

Use examples: Examples bridge the gap between what is known and what is new. They can illustrate something abstract and unknown by explaining it in terms of something we are familiar with, or can easily imagine. Examples provide a case against which we can check our understanding. How many times in this handout have I used examples to clarify? Just on this page alone?

Tell personal stories: Most of our conversations with friends revolve around telling stories about things that happen to us. People like to do this in their spare time, and it follows that it's a good interpretive tool, in part because it evokes leisure settings that people look for during their vacation. You, with your experience living in the Boulder area and hiking here in the park, will have many personal stories that will interest visitors as they learn. Talk about yourself.

Use physical objects: Seeing and **touching** help people learn, and help make abstract ideas more concrete. (Why do you suppose that maps at popular visitor sites are often smudged with fingerprints, or worn smooth from the passage of thousands of hands?) Physical objects can include dead leaves, pine cones or seed pods, arrowheads, skulls and bones, a piece of agate or sandstone, a fossil, and so on. Historical objects especially beckon to people's fingers! Be sure to let your audience know what **not** to touch.

Use Comparisons and Contrasts: People love to see the similarities and differences between things, to see how things relate to one another, and to look for patterns. There are thousands of things to compare and contrast: ponderosa pines and Douglas firs; burned and non-burned forests; a beaver skull and a mountain lion skull, an owl feather and a magpie feather, modern and historic Boulder.

Use Other Senses: Accustomed to using our eyes, we often ignore our other senses. Help visitors discover nature through touch, smell and hearing. For example, you can smell the bark of a ponderosa pine, play a game of "What's in the bag?" with hidden objects, or invite visitors to close their eyes and listen to the wind and bird songs while feeling the sun on their skin.

Make References to the Visitor: Remember, interpretation should be personal (see Principle 1 on p. 3). People will learn and remember more if they have a sort of "mental glue" to help stick new ideas in their brains. This "mental glue" is often based on things they already know or have seen and done. When you ask, "How many of you have ever seen...." or, "Has this ever happened to anybody else.....," you make people reference their own experience and this helps them remember what you say next. You prepare a spot where the new idea can stick to the old one.



Use Metaphors: A metaphor is a description or comparison that uses terms or ideas from one setting in a very different situation to make a point. Metaphors help us visualize or conceptualize things that are unfamiliar. Some can be quite funny. Here are some examples: the "information dump truck" (no such vehicle exists in reality); the "interpreter's tool box" (you can't actually carry these ideas around with wrenches and hammers); "mental glue." You are familiar with many other metaphors. Frequently, they are common sayings or expressions. (Can you think of any?)

Use Humor and Jokes: I pay better attention when I'm laughing. We all love a good joke or funny story, and many of these can teach. Don't hesitate to use goofy examples to illustrate, share stories from your personal experience, or make funny comparisons. Children often enjoy interpreters who ham it up a bit, talking in silly voices or accents, or dressing up like particular characters.

Use Variety: People like different kinds of activities. Try to avoid just walking or talking. For example, encourage them to explore an object blindfolded; to sit quietly and watch for birds or listen for sounds; or to look through binoculars at a distant landmark.

Use Movement and Eye Contact: Your tone of voice and gestures are important to keep people interested. Avoid a dull, monotone voice, or you will sound like that awful professor who's lecture you dreaded every week. Stand and walk around, don't sit or stay seated. Do interesting things with your hands: point, make shapes to illustrate what you're saying. Move close to the group, or suddenly move back. Single out an individual and make eye contact with them alone for about five seconds while you talk, as if they are the only person you're talking to. Don't stare at your shoes or the sky when you are talking! Podiums set up a barrier between the audience and restrict your movement. Avoid them whenever you can.

Use visual aids: Some interpreters carry small posters, maps or laminated illustrations with them which they pull out at the proper moment. You can also draw maps and diagrams in the snow or sand, or use your hat to represent a mountain. Real objects also make great visual aids: that tree over there, this pine cone, that amazing rock formation.

Observe Your Visitors: Each visitor is unique in terms of interest, prior knowledge and stamina. You must choose your interpretive activities to match the visitor's needs. Learn to watch for subtle cues from the visitors to guess how they are feeling: yawning, complaining about heat or being tired, asking a lot of interested questions, walking ahead or struggling to catch up, etc. Be willing to change your mental program instantly to accommodate your group's wishes, needs, interest level or energy level.

Develop your Own Style: We all have our own personal style of communication. Some people tell better jokes, some can tell a story that makes you shiver. Some of us are natural comics, others are natural teachers. Some very talented interpreters can sing and play instruments, using music and songs to engage and teach. You will have to develop your own unique style, using the strategies listed here as well as others, by finding what works for you. Relax and be yourself, and play to your strengths.

Putting together a Thematic Presentation

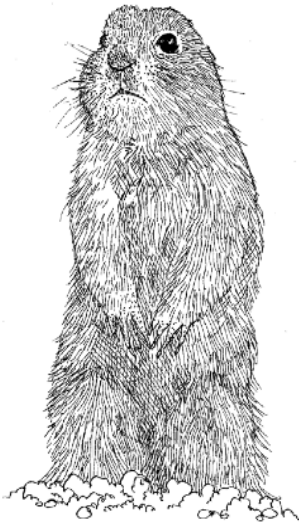
Now that you have all this information about interpreting, how can you use it to plan a program? As an interpretive naturalist, you may regularly present planned (*but not memorized*) talks from mental notes. Generally, such a talk will have a *theme* which you have chosen to highlight an important aspect of the site. Organization is a key to good interpretation, just as in telling a joke. How should you organize your talk?

A planned talk or nature walk, just like an essay, has 3 parts: an **introduction**, a **body**, and a **conclusion**. The different ideas within the talk are linked by **transitions** to maintain a smooth flow. Each of these parts has a special function in the talk, just as the different parts of your body help you to move.

Typically as a roving interpreter or visitor center staffer, your talks will be spontaneous. You will have no chance for prior planning, and what you say will be the result of something that you observe or a question asked by a visitor. Clearly, you won't have the time to plan your response with a complete introduction, body and conclusion. The organization scheme I am presenting here is an **ideal** that won't work all the time in the field. However, even if you're making something up as you go along, try to apply these parts of a talk. It will help make your impromptu talks more fun and easier for the visitors to remember.

The Introduction Presents the Theme and Grabs Their Attention

The introduction of a planned talk gets people interested in the *theme* you are going to present: it's the hook that tells people, "Hey, listen up. This is going to be worth it." You'll need to do something to capture and focus their attention, such as: start with a shocking or irritating fact, a question, a puzzle, a personal or moving story, or an unusual statement. This makes them want to hear more.



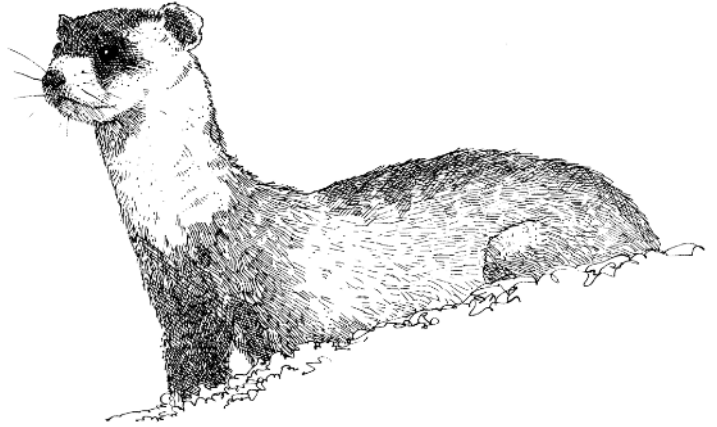
Besides catching their interest, **the introduction should state the main theme**. This clarifies the purpose of the talk, and primes people to receive the information they will hear shortly. It's the set up for your big picture over-arching idea. "Tell 'em what you're going to tell 'em."

For example, imagine a talk based on the following theme: "*Misunderstanding prairie dogs leads to their extermination, which in turn hurts many other species.*" When you tell people your theme right in the introduction, they know what the presentation will be about and they ready their memories to store and organize what you tell them. **Stating your theme right at the beginning greatly increases the chance that your audience will get your message!**

You can further this priming process by telling people how the talk will be organized, what's to come. "First, I'll give you some background about prairie dogs and the plants and animals that depend on them, then I'll tell you how the loss of prairie dogs causes serious damage to our natural grasslands."

The Body Develops the Theme

The **body** is where you present the bulk of the information, facts, dates and data, all of which you select from your knowledge base and research to clarify and support your central message. How much, how detailed and how technical this information is depends on your assessment of what your group wants. The more you can relate this information back to the theme, the more enjoyable your talk will be. Visitors will feel that they really understood the point of your program and got the central message.



However, as a general rule, **try not to present more than five main ideas or points in the body. Three is better.** Psychological research has shown that we human beings can't remember and process more than 3-5 major ideas at once. With more, we become confused and can't keep everything straight (imagine trying to juggle too many oranges).

If you're talking about prairie dogs, you could talk about all of these topics:

- Historical accounts of prairie dogs
- The prairie dog life cycle
- Prairie dog adaptations
- Where to see prairie dogs in the Boulder area
- Effects of plague in prairie dog colonies
- Social behavior of prairie dogs
- Organization of prairie dog towns
- Predators of prairie dogs
- Animals and plants that depend on prairie dog towns
- How and why people exterminate prairie dogs
- How loss of prairie dog towns has affected the local grassland ecology
- How people work to conserve prairie dogs
- How individuals **like you** can help prairie dog conservation efforts

But imagine how a vacationing visitor would feel if you tried to cram all this information into a single program. Having too many main points in your talk will overwhelm your visitors' memory and dilute or muddle your theme. Most people are quickly bored by the information dump truck. They'll walk away and find something more interesting to do. So pick the 3 to 5 topics from the list **which best support your main theme.**

What if some topics you want to talk about don't fit your theme? Easy! Either **leave 'em out** (this is how your theme helps you choose which information to include!), or else **create a different theme to structure your walk for which those facts are relevant.**

Let's say that you chose to limit your program to the following five chunks or "chapters:"

1. General, brief background on prairie dog biology and life;
2. Plants and animals that depend on prairie dog towns;
3. How and why people exterminate them;
4. How the loss of prairie dog towns affects other grassland species;
5. How individuals can help conserve prairie dogs.

You will achieve best results if you present each "chunk" as a separate unit. That is, talk about prairie dog biology first, then talk about dependent species and so on, rather than mixing information about dependent species and general biology while tossing in some facts about extermination techniques here and there. If you mix up your chunks, people will get very confused and may become hopelessly lost in the disorganization of your talk.

Also, each chunk should have its own subtheme which supports the main theme of the program: *Misunderstanding prairie dogs leads to their extermination, which in turn hurts many other species.* For the five chunks above, we could choose the following subthemes:

1. Prairie dogs have a complex social life with many similarities to humans;
2. A wide range of plants and animals depends on prairie dog towns to survive;
3. Urban development and misinformation cause people to exterminate prairie dogs ;
4. Without prairie dogs, many dependent species are vanishing;
5. There are several ways YOU can help conserve prairie dogs.

See how each of these sub themes is itself a theme statement, and all relate back to the main overarching theme of the presentation.

The Conclusion Cements the Main Theme

The **conclusion** has several important functions, perhaps the most important of which is to **restate and underscore your main theme one last time**. To do this, you can use almost the same words from the introduction when you stated the theme for the first time. This helps to cement people's understanding of your central message and allows them to remember it even after they have gone home.

This recapitulation of the theme can be made even more powerful if you review some of the main points of the body of your talk, or remind them of things you said earlier. Again, this has more impact if you repeat *some of the very same words* you used previously. "With 98% of their old range converted to human uses, it's no wonder that prairie dogs, black footed ferrets, burrowing owls and a host of other creatures are vanishing from our grasslands. We will lose some of these species forever unless we all learn to value the 'little dogs of the prairie,' share space with them, and correct some of the our misunderstandings."

Your conclusion should have an impact and leave people pondering what you have said. It's good to give them something to think about after you finish, since the longer they think about your theme the more likely they are to remember it later. The final impression you leave them with

doesn't have to be a depressing message; it could be optimistic, a riddle, or something funny.

A final necessity of the conclusion is to signal that your talk is over. You can ask, "Does anyone have any questions?" to make clear that you have finished speaking. In more formal presentations, you may wish to say, "Thank you" at the end to show that you have finished. I have heard many presentations which end with a long, uncomfortable silence until the speaker says weakly, "That's all." Often, I conclude a program with a "Thank you!"

Transitions Maintain a Smooth Flow

Transitions help you to change from one idea to another without confusing your audience. We use transitions all the time in our conversations to alert our friends that we are going to talk about something new. For example, if you are done talking about burrowing owls and next want to talk about bull snakes, you can say something like, "Burrowing owls aren't the only ones that use prairie dog burrows for a home. Bull snakes will also move into old burrows." Can you see how this transition creates a bridge between owls and snakes that helps your audience follow along?

Transitions can also be used to restate your theme at various times during your talk. For example, "Another common misunderstanding about prairie dogs relates to the spread of plague." Note how the use of "misunderstanding" echoes the theme as stated in the introduction. This reinforces the central idea yet again.

There are many expressions you can use as transitions. A few include:

Not only ____ but also ____

Another example is _____

But _____ isn't the only case.....

The second (third) way this can happen is....

Now, related to this is ____

The 2-3-1 Rule will save you work!

When most people develop a talk or essay they frequently start with the introduction, then write the body and finish with the conclusion. *However, I recommend that you start by planning the body, then write the conclusion and last of all plan the introduction.* Start with the second part, then write the third and finally the first part of the talk.

When we start planning a talk, we have a theme and a rough idea of where we want to go with it. But by writing the body, you sharpen and refine your approach to the theme and select the specific information to tell your story. As you immerse yourself in details, your original concept may change a little or a lot by the time you finish planning the body. Remember, the introduction sets the stage for your whole presentation. If you write it first, and then change your conception while planning the body, your introduction may no longer be the best set-up for the presentation! You'll have to write it over again to reflect the changed emphasis.

By starting with the body, you refine exactly what you want to say about your theme. Then, write the conclusion to add a solid close to your talk and reinforce that theme. Finally, write the introduction which perfectly sets up the body and the conclusion. Following the 2-3-1 rule will surely save you time and result in a more powerful, coherent presentation.

Sample Outline for a Prairie Dog Program

Main Theme: Misunderstanding prairie dogs leads to their extermination, which in turn hurts many other species.

I. Introduction

- A. Share an historic quote about vast numbers of prairie dogs.
- B. Link to the present day: now, like the bison, they are almost gone.
- C. Question: Where did they go? (Discuss briefly)
- D. Question: Why have people waged such a war on prairie dogs? (Discuss briefly)
- E. State main theme.
- F. Provide brief run-down of what's to come.

II. Subtheme: Prairie dogs have a complex social life with many similarities to humans.

- A. Prairie dog communities are organized into towns with many similarities to human towns.
- B. Towns are organized into units called "coteries."
- C. They have many interesting kinds of social behavior: distinctive calls, territorial battles.
- D. Reproduction: They reproduce slowly; females share nursing duties.
- E. They are delightful to watch (share a personal story).



III. Subtheme: A wide range of plants and animals depends on prairie dog towns to survive.

- A. Statistics on how many species are known associates. Run through a brief list and show some laminated pictures of these animals.
- B. Discuss in brief, noting special interesting stories or facts:
 - 1. Burrowing Owls
 - 2. Black-footed ferrets
 - 3. Ferruginous hawks
 - 4. Badgers
 - 5. Snakes
- C. Prairie Dogs' role in cycling the soil: "Earthworms of the prairie"

IV. Subtheme: Urban development and misinformation cause people to exterminate them.

- A. Now occupy only 2% of their former range.
- B. Humans are major competitors for space.
- C. Main causes for loss of habitat: agriculture, livestock, housing developments, introduction of plague.
- D. Misinformation leads to persecution.
 - 1. Myth of livestock leg breakage.
 - 2. Myth of decreased range food value.
 - 3. Myth of serious danger of plague spread to humans.

4. "They breed like rodents!"
- E. How they exterminate them: poison, traps, open season for shooting.

V. Subtheme: Without prairie dogs, many dependent species are vanishing.

- A. Black-footed ferret nearly extinct, gone from Colorado.
- B. Burrowing owls disappearing.
- C. Ferruginous hawks decreasing.
- D. Change in prairie grass composition.
- E. Question: What will be the final outcome?

VI. Subtheme: There are several ways you can help conserve prairie dogs.

- A. Help counter the disinformation. Spread the truth.
- B. Let managers of prairie dog habitat know how you feel.
- C. Volunteer to help relocate doomed prairie dog towns.

VII. Conclusion

- A. "So, as you can see.....," recapitulation of the main theme.
- B. Brief review of the main points.
- C. Return to the historic quote about vast numbers of prairie dogs.
- D. Question: Where do we go from here? (Discuss briefly)
- E. Thanks, does anyone have a question?



Tips for Leading Interpretive Walks

Planning and Preparation

1. On an interpretive walk, *flexibility is a key ingredient*. Some people want lots of information, some just want to take pictures or just want a nice stroll with a park staffer. Some will enjoy activities, games and presentations while others may find them dull or condescending. Groups may also change in their desire over the course of a walk. Don't be crushed if an activity or talk flops, or if some visitors choose to leave your walk while it is in progress. Take cues from things like how many of your group ask questions, if their attention seems to wander, if people sit down whenever there is a stop, if people complain about the heat more than usual, etc. Don't demand that people listen to you unless it's very important (i.e., safety and rules)
2. A typical walk consists of:
 - a. A number of stops in which the guide speaks to the entire group, giving planned presentations which develop and support the theme.
 - b. Many spontaneous visitor questions, often asked between stops, about the surroundings *which may not relate to the theme*. Make sure that the entire group hears the planned parts of the thematic presentation, but you may answer the spontaneous questions one on one as you walk. Nobody should feel like they are missing anything.
3. Remember that people are on your walk *to relax and have fun*. Don't overburden them with information or cause tension. Keep your interpretive walk relaxed, loose and flexible. Those who want lots of information will show themselves by asking a lot of questions. With experience you'll develop a sense of how much information to give them.
4. Don't memorize scripts for your programs. It sounds terrible! Rather, work from an outline which is based around the stops you intend to make. Find your own spontaneous words each time you do the walk. This keeps the program from sounding too canned or artificial.
5. Maintain a clean, neat, professional appearance. Consider wearing a staff uniform since it may add to your credibility and the respect visitors will show you.
6. Know the site before you take people there, and plan your walk and stops based on what there is to experience.

7. Be aware of potential dangers such as obstructions or slick spots on the trail, and warn people ahead of time.
8. Emphasize good rules of visitor conduct to protect resources. But never say, “Hey! You can’t do that!” without explaining why. And don’t ever say, “Because it’s against the law” and leave it at that. Interpret why the law exists.
9. Discourage collecting of natural materials. Be sure to explain why. In many protected areas, collecting and foraging isn’t allowed in any case.
10. It may take many repetitions before you’re truly satisfied with your interpretive walks. Hopefully, you’ll never be totally satisfied but rather will look for ways to make your hikes even better.
11. Always eat a good breakfast before going off to deal with the public. It really helps.

Starting your Interpretive Walk



1. Get to know early arrivals before the walk starts. What interests them? What did they come here to see? You can also get to know people by listening to the type of questions they ask throughout the walk. If interpretation doesn’t relate to people personally, then it falls flat.
2. Start on time!
3. Establish your authority as the leader from the beginning by taking charge of the group and directing it. This is especially true with school groups.
4. Give people an idea of what they will see on the walk (but don’t tell them too much or you will spoil the surprise and the joy of discovery). Draw a map in the sand or snow if it seems appropriate, or start your walk next to a posted trail map where you can share the route.
5. State the theme of your talk in the introduction.
6. Let people know how long and strenuous the walk will be.
7. Ask for their help in protecting the resource: staying on the trail, packing out garbage, not collecting forest materials, etc.
8. Try to keep your introduction brief, then move the group to second spot even if it’s not very far, to communicate that it won’t be a static activity.

9. If you're leading a large group, start off walking quickly to get the whole group moving, then slow down.

The Main Part of the Walk

1. *Avoid scientific names and jargon unless you define the terms as new vocabulary, or unless there is a good reason.* People always ask me what this plant or that bird is called, but beyond just a name I try to add some other information, such as a story about that plant, or a human use, or the derivation of its name, etc. Names by themselves aren't that interesting.
2. *Never falsify information.* If you can't answer a question, be honest and say, "I don't know." Learning to say, "I don't know" takes practice! I often respond to questions outside my knowledge with speculation or educated guesses, but always preface them with "I'm not sure, but here's a possible hypothetical explanation...."
3. When addressing the group as a whole (for important pieces of a thematic or sequential presentation) wait until the everyone has assembled. It may help to stand above and up wind from the crowd so everyone can see and hear you. Another trick with a large group is to walk past the place you want to stop (people will follow you), then stop the group and walk back halfway so you can easily see and address everyone. If people in the group ask you questions, repeat the question in a loud voice so everyone can hear before answering it. Another pro tip: face into the sun when talking to the group, so they don't have to.
4. *Talk to people at the back of the crowd* (an old trick for making sure your voice carries). Make eye contact with everyone and hold it for a few seconds.
5. Don't try to talk to the whole group while walking unless the group is very small.
6. Be patient with a hike participant, even if you are tired or hungry or their question seems obvious. Don't speak to them condescendingly. Give them credit for wanting to learn. There are no stupid questions, only brave people who have the courage to ask.
7. Our parks and protected areas receive so many visits they are suffering impacts on the land due to the sheer number of visitors. Generally, keep your group on the trail. Explain that this reduces impact to a heavily visited area. If you leave the trail, have a good reason and do so with extreme care not to crush plants or erode soil. You are setting an example.
8. Encourage people to use all their senses--not just sight--and to discover things for themselves. For example, give puzzles or mysteries to solve or questions to answer which relate to the theme of the walk. Encourage them to touch, feel textures, smell, listen.
9. Take advantage of spontaneous occurrences as "teachable moments" even if they don't fit your theme.

10. Keep the lead (or at least stay close to the front) at all times, but do not lose sight of the slowest.

Choose your Stops Carefully

1. Frequent short stops give a sense of movement, rather than a few long stops.
2. Make your stops purposeful, to see something (especially something related to your theme). *Don't stop just to make a speech.*
3. Stop for photo opportunities. If a better photo opportunity exists farther along the walk, let visitors know and keep moving.
4. If you stand in a hazardous place while addressing a group, they'll worry about you and won't hear a thing you say.
5. If it's hot, stop in the shade; if cold, stop in the sun. *Children, being smaller, are much more susceptible to temperature extremes than adults.* By the time you start feeling uncomfortably hot or cold, the kids in the group may be really miserable.

Concluding your Walk

1. Your final stop on the walk should present your conclusion, *and restate your theme.*
2. This is best done *before they see the final destination/parking lot.* As soon as they see their car, they will quit thinking about your program and start thinking about their next activity: lunch, back to school, whatever.
3. This is especially true with school groups. The instant the kids see the parking lot or the school bus, they're gone. Sometimes they will all joyfully run down the trail, already anticipating lunch. Make sure to give your conclusion before they know the hike is almost done. And take care: almost all the injuries that have occurred on my hikes happen when kids sprint down the hill to the bus and slip on gravel. I ask the teacher or chaperone to help me keep the kids under control at a safe speed.
4. Make a point of thanking people for coming on your walk and say how much you enjoyed having them. I try to stick around to wave good bye to the kids on the departing school bus.