



Trekking Tools

are thinking tools that help us as we work. Tools make the job easier. They assist us in our work.

Trekking Tools are mini sessions that introduce a creative thinking tool and explain how to utilize the tool while working on a Challenge. These short activities introduce the tool, explain how to use it, and present an activity for team members to develop.

By learning tools and working with them, team members become comfortable with their uses. They realize how the tool can be beneficial in either generating or focusing on ideas.

We hope that team members will learn how to use these thinking tools and use them as they solve their Destination ImagiNation® Challenges.



Trekking Tool: Sequencing S-M-L

Standards Addressed:

- **Information Processing:** *Students develop criteria to judge the relevance of information.*
- **Problem Solving:** *Students develop and apply strategies to solve a variety of problems*
- **Health:** *Students understand and manage their personal resources.*

Introduction:

Sequencing S-M-L is a *focusing tool*. It assists in setting up a plan in which the team member divides the long-range tasks into smaller, manageable segments. It helps to arrange the segments in a logical order. This tool encourages the team member to decide what needs to be accomplished first (S-short range), next (M-Medium range), and last (L-long range). See the **Blank Forms and Mini Posters** section for Focusing Guidelines.

Get Moving:

1. Think about the task at hand. If you are facing a large task with multiple pieces, it is helpful to place those smaller segments in an order to be accomplished.
2. First, decide the final, desired outcome. What is the goal that you hope to achieve?
3. Generate a list of the steps needed to reach that final goal.
4. Decide what time limit you want for each category. (i.e. S-short range might be to complete these steps within 48 hours. M-medium range might list steps to be completed within one week. L-long range might be to complete the steps within one month.) The time limits for S-M-L can change each time you use this tool. They are arbitrary and determined by the challenge facing you.
5. Divide a sheet of paper into thirds and write **S** on the first section for the Short Range steps, **M** in the middle section for the Medium Range steps, and **L** in the final segment for the Long Range steps. Now it is time to arrange the steps into the S-M-L format. All steps to be accomplished first will be written under the S column. Continue by placing all of the generated steps into the S, the M, or the L columns.
6. As you arrange the steps, you may notice some that need to be broken into smaller sections or some may need to be moved to a different column.
7. When all the steps are written, begin with the S column. Prioritize the steps in this column first. Congratulations! You are on your way to a successful completion of your large task.

Try This Out:

Possible scenario for any team, any Challenge: You are just beginning to work on your Challenge, and you want to do a long-range plan. How might the Sequencing S-M-L tool help you?

1. First, generate a list of all the major steps that need to be taken to successfully complete the solution to your Challenge. Write this list on chart paper so you can refer to it throughout the Destination Imagination® season.
2. Using chart paper, make a chart with three sections: One for Short, one for Medium, and the third for Long.
3. Read the list of steps and write the steps under the proper column, S, M, or L. Note: Some steps are ongoing and will need to go in one or more columns.
4. By sorting the steps into timed segments, you can readily see which steps need to be accomplished first before others.

Here is a sample Sequencing S-M-L for ANY Challenge.

S (Short)	M (Medium)	L (Long)
<ul style="list-style-type: none"> • Read the Challenge again • Generate possible solutions • Discuss How Might We.. • Discuss original possibilities • Decide on research needed • Assign research tasks • Register team with D.I Inc. • Get Team Managers • Set up calendar of meetings • Set up snack calendar • Practice <i>Instant Challenges</i> • Have FUN! 	<ul style="list-style-type: none"> • Decide upon the final theme • Decide about props • Who will write the script? • Assign tasks • Plan a field trip to the local hardware store • Locate needed materials • Invite in a guest speaker who is an expert on our theme • Make backdrop/props • Hand out parts • Practice <i>Instant Challenges</i> • Have FUN! 	<ul style="list-style-type: none"> • Practice our Presentation • Time our Presentation • Can we perform for our school? Parents? • Fill out needed paperwork • Register with our Regional Director for Tournament • Arrange for props to be taken to site • Practice <i>Instant Challenges</i> • Do finishing touches on our props/backdrop • Have FUN! • Thank our Team Managers

Fill in the S-M-L Chart below for jobs specific to your Challenge. How might the Sequencing S-M-L tool help you?

S (Short)	M (Medium)	L (Long)
<ul style="list-style-type: none"> • Read the Challenge again...and again...and again. • Generate possible solutions • Discuss original possibilities • Decide on research needed • Assign research tasks • Set up calendar of meetings • Practice <i>Instant Challenges</i> • What else? 	<ul style="list-style-type: none"> • Decide upon the final theme • Decide about props • Assign tasks • Locate needed materials • Make backdrop/props • Practice <i>Instant Challenges</i> • What else? 	<ul style="list-style-type: none"> • Practice our Presentation • Fill out required paperwork • Register for Tournament • Arrange for props to be taken to site • Practice <i>Instant Challenges</i> • Do finishing touches on our props and devices • Have fun: Remember that it is the journey that is important. We are learning skills to last a life time. • Thank our Team Manager(s) • What else?

Some Ideas for Using this Tool :

- Your team might use S-M-L as a time line to create your Theatrical Set.
- Your team could use the S-M-L tool to systematically create your Costume.
- S-M-L can help you organize your research.
- Your team might use S-M-L to develop your Structures.

Trekking Tool: Evaluation Matrix



Standards Addressed:

- **Reasoning and Problem Solving:** *Students choose and use effective means of solving problems.*
- **Reasoning and Problem Solving:** *Students approach problem solving with an open mind, healthy skepticism and persistence.*

Introduction:

The Evaluation Matrix is a *focusing tool*. This tool allows you to decide upon criteria and rate your options according to the criteria you have selected. This is a good tool to use when you have multiple options but you want to select the most promising option. See the **Blank Forms and Mini Posters** section for Focusing Guidelines.

Get Moving:

1. It is helpful to use a matrix for this tool. If the group is going to be working together and evaluating the options as a group, you may want to make the matrix on an overhead transparency or a large chart for all to see. If individual learners or small groups of learners are going to evaluate the options, the matrix can be written on a sheet of paper.
2. Create the matrix using the sample in the **See Blank Forms and Mini Posters** section.
3. List each option you want to evaluate on one of the rows.
4. Decide the criteria you will use in your evaluation and write one criteria in each column heading.
5. Decide on a rating scale that you will use. (1=very good; 2=average; 3=poor)
6. Rate each option against the criteria and place the number in the box to illustrate your thoughts on its merit.
7. Summarize all the final ratings and decide your next step.

Try This Out:

Possible Scenario: How might the Evaluation Matrix tool help you?

1. Your team has selected the Challenge *Kidz Rulz*. It asks you to create and present a Story about a Place where one of the Rules of Motion does not apply but "Kidz Rulz" do. You also will design and create a Theatrical Set that depicts the Setting for your Story. You must choose one of the Rules of Motion and create a Story about it. How will you select which Rule of Motion to use?
2. Using the Evaluation Matrix can help in your selection process. Since this is a *focusing tool*, it can help you look at multiple options and choose the one that is most promising and appealing to your team.
3. Set up the grid for the Evaluation Matrix using the Evaluation Matrix form (in the Blank Forms and Mini Posters section) as a model. Use either an overhead transparency or a piece of large chart paper. Doing it in large scale allows all team members to readily see the matrix.
4. List the options you want to evaluate. Write one option on each row. You might write **Law 1**, **Law 2**, and **Law 3** as in the example form.
5. Decide the criteria you will use in your evaluation and write one criteria in each column heading. Here you state YOUR criteria for selection of the law. What do YOU want to be important?
6. Decide on a rating scale that you will use. (i.e. 1=very good; 2=average; 3=poor)
7. Rate each option against the criteria and place the number in the box. You can do this as a team or individually and then combine the scores. Often it is good to do it as a team. This way, you can verbally share your thoughts on each column and give ideas as to how this particular law could meet the criteria. By verbally sharing your ideas, your team now hears possibilities that each individual may not have thought of personally. Come to consensus on the number to place in the rating box.
8. Summarize all the final ratings. By adding the columns, you can usually see the choice that has the most possibilities. Sometimes your team can see other possibilities that were discussed and you can combine ideas. For example, you might have the biggest number in the Law 2 column but really liked an idea suggested when you were discussing Law 3. See if you can use that idea in some way by incorporating it into Law 2.
9. The Evaluation Matrix has helped you to select your Law of Motion. Now move on to another step in planning your solution. What's next?

Some Ideas for Using this Tool with Other Challenges:

- Your team might use the Evaluation Matrix to choose the Technical Innovation you will use for your Delivery and Return Devices.
- Your team could use the Evaluation Matrix to determine the Genre you will use for your Story.
- The Evaluation Matrix could help your team select the Improvisation Technique that you will demonstrate during your Presentation.
- Your team might use the Evaluation Matrix to select your two Team Choice Elements to be used in your Presentation.

Notes:

Trekking Tool: Brainwriting



Standards Addressed:

- **Decision Making:** *Generate a variety of solutions*
- **Reasoning and Problem Solving:** *Think abstractly and creatively*

Introduction:

Brainwriting is a *generating tool*. It is similar to Brainstorming in that there is a deliberate search to find multiple solutions. This tool also looks for unusual options and calls for deferred judgment. What makes Brainwriting different from Brainstorming is that it is done in silence and ideas are contributed by each individual alone. See the **Blank Forms and Mini Posters** section for Generating Guidelines.

Get Moving:

1. Use the Brainwriting grid in the **Blank Forms and Mini Posters** section. It is helpful if the group is seated around tables or in a circle.
2. State the challenge to be solved. Use "sentence stems" such as "How might we...?" or "In what way s might we...?" Set an established amount of time for idea generating (10-15 minutes).
3. Remind team members that this is silent idea-generating and they will work alone. Soft, slow music may be played in the background.
4. Each team member has one Brainwriting paper. One or two extra papers are placed in the center of the table.
5. Each team member writes one idea in each box across the top row, generating a total of three ideas, then places that paper in the middle of the table. He/She then takes a sheet that someone else has placed in the middle of the table.
6. The team member looks at the top three ideas generated on this second sheet, makes connections or simply thinks of other ideas. He/She then writes three different ideas on the second row of boxes. Team members write new ideas, not ideas they wrote on their first sheet.
7. All team members continue until all papers are completed. When collected, many ideas have been generated. The team now begins to focus on these ideas to see which best meet their needs.

Try This Out:

Possible scenario:How might the Brainwriting tool help you?

1. Use the Brainwriting grid from the **Blank Forms and Mini Posters** section. Each team member has one Brainwriting grid and there are a couple extra copies in the center of the table.
2. Your Challenge asks you create a Hat that transforms the wearer. Use the Brainwriting tool to help you get ideas for _____.
3. Make a list of all suggested ideas on chart paper. Eliminate any duplicate ideas.

Some Ideas for Using this Tool with Other Challenges:

- Your team might use the Brainwriting Tool to develop a design for your Device.
- Use Brainwriting to generate ideas about the Place where a Law of Motion does not apply.
- Brainwriting can generate a list of all different kinds of Original Innovative Devices.
- Use Brainwriting to generate ways you might create your character.

Notes:

Trekking Tool: Morphological Matrix



Standards Addressed:

- **Problem Solving:** *Develop and apply strategies to solve a variety of problems*
- **Reasoning and Problem Solving:** *Think abstractly and creatively*

Introduction:

Morphological Matrix is a *generating tool*. This tool helps you to generate many new options. Different attributes are generated in a number of columns. By randomly selecting one idea from each column, the learner creates hundreds of combinations. See the **Blank Forms and Mini Posters** section for Generating Guidelines.

Get Moving:

1. Decide what Challenge you are going to solve.
2. Think of a few different categories that could combine together to solve your Challenge.
3. Using the *Morphological Matrix*, fill in words under the selected categories.
4. Randomly select a word from each different column to find novel, unusual, and/or imaginative combinations.
5. Plan a solution using the words chosen.

Try This Out:

Possible Scenario: How might the Morphological Matrix tool help you? You might wish to use this tool to get ideas for ways to combine Improv Elements or acting skills.

1. Use the Morphological Matrix in the **Blank Forms and Mini Posters** section. List some Improv Elements across the top of the page (See your Challenge for a list of Improv Elements in this Challenge). Generate ideas for each heading. Remember, only one idea is written in each box.
2. Randomly select six numbers, each between 1 and 6. (You can use a number more than once, and you can create a Morphological Matrix with more or fewer than six headings; this is just a sample.)
3. Using your first number, take that word from the first column. Look at the second number, and take the corresponding word from the second column, and so on until you have all six ideas for Improv Elements. Practice combining the elements into your solution.
4. Try it again and again using different number combinations, then create a new grid with new words.

Some Ideas for Using this Tool with Other Challenges:

- Your team might use the Morphological Matrix to help you think of creative Devices.
- Your team could use the Morphological Matrix to design a creative Theatrical Set for your Challenge.
- The Morphological Matrix might give your team ideas for Team Choice Elements during your Presentation.
- Your team might use the Morphological Matrix to generate ideas for an original Story for your Presentation.

Notes:

Trekking Tool: ALoU



Standards Addressed:

- **Problem Solving:** *Develop and apply strategies to solve a variety of problems.*
- **Reasoning and Problem Solving:** *Think abstractly and creatively.*

Introduction:

ALoU is a focusing tool. This tool provides the opportunity to examine options by looking at all sides. It helps analyze or refine one or more promising options. The **A** stands for **Advantages** of the idea. The **L** allows us to analyze the **Limitations** of the ideas and the **U** reminds us to look for **Unique Features** of each idea. The small **o** reminds us to search for ways to **Overcome the limitations**. See the **Blank Forms and Mini Posters** section for Focusing Guidelines.

Get Moving:

1. Draw three columns on chart paper. Write the idea or option to be examined on the top of the chart. Label the first column Advantages, the second column Limitations (and how to overcome them), and the third, Unique Features.
2. First, list the **Advantages** of the idea. Ask "What is good about this option? What advantages are current and real? What advantages do we actually have and can put on hands on now regarding this option?" List all these advantages on the chart paper.
3. Next, list the **Limitations** of this option. Statements should be broad, brief, and beneficial. Rather than just listing problems with this option, phrase your concerns in a positive manner. We want to solve these problems, not just list them. Ask questions like "How might we..." or "In What Ways Might We..." Instead of saying, "It will cost too much," you might say instead, "How might we do this option and keep the cost within our budget?"
4. Now, examine the third column, **Unique Features**. What is really unusual, unique, or novel about his option? What makes it clever or special? What is *perceived* that could be an advantage as opposed to *what is* already an advantage? What is wished for or what is a desired future of the task? Phrase your thoughts using "Wouldn't it be nice if..." sentences.
5. Finally, go back to the **Limitations** column. Decide which limitations are really of concern and examine ways in which you might **Overcome** them.
6. If there are two options that your team really likes, complete an ALoU chart for both options. Using this tool will help you determine which of the two options has the most possibilities.

Try This Out:

Possible Scenario: How might ALoU help you?

1. You need to create a Story about the Life and Times of an Architect. After doing research, your team sees very strong possibilities for two different Architects and you do not know which one to select. Using the ALoU focusing tool can help your team decide which Architect has the most potential for your Presentation.
2. Begin by filling in an ALoU chart for each Architect. We'll call them Architect 1 and Architect 2.
3. The team first addresses the '**A**' column. Examine all of the Advantages of Architect 1.

4. Under the Limitations column, your team might list Limitations or problems you might face if you select this Architect.
5. In the Unique Feature column, your team might list: Wouldn't it be nice if our Architect designed something very unique and different from all other architects? Again, write additional Unique Features for this option.
6. Revisit the Limitation list unique features for choosing this particular Architect.
7. After completing this ALoU for Architect 1, you will do the same type of chart for Architect 2.
8. After both ALoU charts have been completed and discussed, your team has examined both options thoroughly and is now ready to make your final selection.

Some Ideas for Using this Tool with Other Challenges:

- Your team might use ALoU to choose between two Device designs that you are considering.
- Your team could use ALoU to select the better scenario for two different original Stories you are considering.
- ALoU could help your team select the characters for your Presentation.
- Your team might use ALoU to select the Place in which your Story takes place.

Notes:



Trekking Tool

This is a focusing tool that allows you to see differing opinions visually.

Trekking Tool: Compromise

Standards Addressed:

- Working with Others: Uses conflict resolution techniques

Introduction:

Compromise is a *focusing tool*. This tool allows you to see differing opinions visually. Use this tool when members of the team are having a difficult time agreeing on a decision. See the Blank Forms and Mini Posters section for the Compromise form and Focusing Guidelines.

Get Moving:

You may want to make the Compromise form on an overhead transparency or on large chart paper for all to see. If individual learners or small groups of learners are going to compromise their options, the form can be written on a sheet of paper.

1. In the circle, write some of your thoughts and opinions.
2. In the square, members of the team holding opposing views, write some of their thoughts and opinions. Now, set the timer for 2 minutes. One side (square view) explains their thoughts and views clearly. The other team members (circle view) listen openly and look for the positive possibilities in their explanation. When the timer rings, the team stops their explanation.
3. Next, the timer is set again for 2 minutes and the other opinions (circle view) are explained. The square view team members listen intently now and seek positive possibilities in this explanation.
4. Now each team states some positive possibilities they heard or could imagine about the opposing view point. This is where the concept of compromise enters the picture. The two viewpoints are working at seeing possibilities brought out by the opposing view.
5. The two sides discuss how they might come to a compromise and use views from both parties.
6. Once a compromise has been reached, the agreed upon idea is written in the square. The rectangle and the circle have joined to become an octagon in their thinking.

Try This Out:

Possible Scenario:

- Your team has selected the Challenge that asks you to design and construct a Vehicle. How might the Compromise tool help you with this decision?
- Your team might use the Compromise tool to decide which _____ you will use in your Challenge.
- Your team could use the Compromise tool to choose your main Masquerade Character.
- The Compromise tool might help you select which themes to use.
- Your team might use the Compromise tool to choose the design of your Structure.
- **Instant Challenge:** How might this assist your team in preparing for your

Instant Challenge?

Trekking Tool: SCAMPER

Standards Addressed:

- Thinking and Reasoning: Effectively uses mental processes that are based on identifying similarities and differences

Introduction:

SCAMPER is a *generating tool*. This tool encourages you to think of new options. The letters in the word SCAMPER actually represent different words. Each letter stands for a word to help illicit new ideas. It is a checklist in the form of an acronym. The letters represent S-Substitute; C-Combine; A-Adapt; M-Magnify, Minify, Modify; P=Put to other uses; E-Eliminate; R-Reverse or Rearrange. Each of these words suggests a way you might generate new ideas to open a range of possibilities. See the Blank Forms and Mini Posters section for SCAMPER Poster and Generating Guidelines.

Get Moving:

It is helpful to use a chart for this tool. If the group is going to be working together, use a large chart for all to see. List the letters of SCAMPER individually down the left edge of the paper. Leave space to the right of each letter (or words they represent) so you can write in the suggested ideas.

1. State the challenge or problem.
2. Choose one letter from SCAMPER. Thinking of the word the letter represents, ask the group what new ideas might this word suggest? For example, if you chose the M, you might ask, "How could we make the prop bigger? Smaller?"
3. Continue with all of the letters of the word SCAMPER.
4. Review the entire list of suggested ideas to see which are most appealing.
5. Decide what your next step will be to assist in your original challenge or problem.

Try This Out:

Possible Scenario:

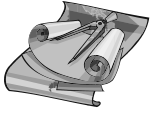
- How might the SCAMPER tool assist you in creating an backdrop?
- Your team might use the SCAMPER tool to help in the design of your landmark.
- Your team could use the SCAMPER tool to think of novel ways to present your theatrical performance.
- The SCAMPER tool could help your team envision ways to creatively demonstrate at least one Improv or performance Technique.
- Your team might use the SCAMPER tool to help you think of something that can be used in two different ways.
- **Instant Challenge:** How might this assist your team in preparing for your Instant Challenge?



Trekking Tool

This is a generating tool that encourages the thinking of new options.





Trekking Tool Signal

This is a focusing tool used to help teams identify the problem generate possible solutions, and choose one solution to attempt immediately.

Trekking Tool: Signal

Standards Addressed:

- Thinking and Reasoning: Applies decision-making techniques

Introduction:

Signal is a *focusing tool*. This tool can be used effectively to help teams identify the problem, generate some possible solutions, and choose one solution to attempt immediately. See the Blank Forms and Mini Posters section for Focusing Guidelines and the Signal form.

Get Moving:

1. Use the Signal form from the Blank Forms and Mini Posters section in this book.
2. The problem or task is written in the top circle, the RED light on the signal. Team members STOP and analyze the problem they need to solve.
3. Possible solutions are written in the middle YELLOW circle. Here the team generates possible solutions. The yellow means to SLOW DOWN and look in all directions. This is a time to analyze and think of possibilities.
4. In the GREEN final circle, the team deduces what their solution will be for this particular problem. Here is where they focus on the possible solutions, and pick the one they feel has the most potential. The GREEN color indicates that they are ready and they now will GO with the solution.

Try This Out:

Possible Scenario:

- How could using the Signal tool assist you in choosing your _____?
- Your team might use the Signal tool to help you choose what materials to use.
- How might the Signal tool help your team decide on the design of your Set Piece or Background?
 - How might your team use the Signal tool to help you decide on the creation of your costumes?
 - The Signal tool could help your team decide on what occurs during a specific Scene
 - **Instant Challenge:** How might this assist your team in preparing for your Instant Challenge?

Trekking Tool: Paired Comparison Analysis (PCA)

Standards addressed: Thinking and Reasoning: Understands and applies basic principles of logic and reasoning



Introduction:

Paired Comparison Analysis, also known as PCA, is a *focusing tool*. This tool allows you to prioritize a small number of workable options. This is done by comparing one pair of options at a time until all of the options have been analyzed. This is a good tool to use when you have a small number of appealing options but you want to select the most promising option. See the Blank Forms and Mini Posters section for the PCA form.

Get Moving:

It is helpful to use a ranking form for this tool. If the group is going to be working together and evaluating the options as a group, you may want to make the matrix on an overhead transparency or a large chart for all to see. If individual learners or small groups of learners are going to evaluate the options, the form can be written on a sheet of paper.

1. Create the PCA ranking form (see Blank Forms and Mini Posters).
2. List each option you want to evaluate and identify them by a letter. Compare option A to all of the others by circling the preference and by rating the strength of the preference (3=very strong preference, 2= a moderate preference, and 1=a very close call).
3. After comparing A to all of the other options, move on to B and do the same type of comparison. After all of the options have been compared, add the scores for each preferred option in each pairing. Add all of the circled A's and write that number for the A total. Continue adding all of the numbers for each circled letter.
4. Identify the ranking from the highest to the lowest numbered totals.
5. Decide the next step. What might you do if there are two options that both rank with a high priority score?

Try This Out:

Possible Scenario:

Your team's selected asks you to create Aircraft prior to the Tournament from team-supplied materials. The team will be making different Aircraft and then selecting which ones they think offer the most potential. How will you select which Aircraft to use at the Tournament? How might the PCA tool help you with this decision?

Other possible uses:

- Your team might use the PCA tool to decide which Gadget you will design and build.
- Your team could use the PCA tool to select the location or time period for your story.
- The PCA tool could help your team select the design of the _____.
- Your team might use the PCA tool to choose the design of your Structure.
- **Instant Challenge:** How might this assist your team in preparing for your Instant Challenge?

Notes:

Trekking Tool: Force- Fitting

Standards addressed: Thinking and Reasoning: Applies decision-making techniques



Introduction:

Force- Fitting is a *generating tool*. This tool is helpful for generating very original ideas. Force-fitting takes unrelated objects or ideas and 'forces' a new possibility or relationship. Unexpected connections are made bringing unusual and exciting options. This is a good tool to use when you need some highly creative possibilities or need to reach for new expectations.

Get Moving:

One way to utilize this tool is to use a box filled with objects (feather, fly swatter, game pieces, item of clothing, kitchen item, old shoe, etc.). Another way is to have a collection of pictures on cards.

These items or pictures are totally unrelated and often, whimsical items engender more creative responses.

1. Prepare the items in the box.
2. Clearly state your problem.
3. Choose one item from the box or a picture. Ask yourself (or your team) how this object might connect or relate in some way to your problem or situation. List all generated thoughts on chart paper for future consideration.
5. Try to think of many, varied responses. The more ideas you generate, the more possibilities you have of thinking of original ideas.
6. After you have made many connections, focus your thinking by choosing one or more of the new possibilities.

Try This Out:

Possible Scenario:

Your team's selected Challenge asks you to create one or more Technical Set Pieces to use in your presentation. How might the Force Fitting tool help you to design and develop creative Technical Set Pieces?

Other possible uses:

- Your team might use the Force-Fitting tool to aid in the Design and Construction of the _____.
- Your team might use the Force-Fitting tool to enhance and produce the _____Effect.
- The Force-Fitting tool could help your team in the presentation of the Nations' Traditions.
- Your team might use the Force-Fitting tool to suggest a creative story line, setting, or character.
- **Instant Challenge:** How might this assist your team in preparing for your Instant Challenge?

Notes:

Trekking Tool: Attribute Listing

Standards addressed: Thinking and Reasoning: Understands and applies basic principles of logic and reasoning



Introduction:

Attribute Listing is a *generating tool*. This tool encourages you to generate ideas by identifying the attributes of a problem or task, then exploring new variations of those attributes. This tool is helpful when you can break the task into smaller segments or you want to 'stretch' beyond the original options.

Get Moving:

It is helpful to use a chart for this tool. If the group is going to be working together and evaluating the options as a group, you may want to make a chart on an overhead transparency or chart paper for all to see. If individual learners or small groups of learners are going to evaluate the options, the chart can be written on a sheet of paper.

1. Make the chart. List the problem, challenge, or task at the top.
2. List the major attributes or smaller parts of the original problem down the left side of the page.
3. Choose one attribute. Ask yourself how you might change or modify this attribute. List several possibilities for this attribute.
4. Continue with each attribute and list the possible changes or modifications that could occur.
5. Review all of your ideas. Which ones are most promising? Focus your thinking by selecting the modifications you feel are most promising.

Try This Out:

Possible Scenario:

Your team has selected a Challenge which asks you to create and perform an Improvisational Skit featuring Nations' Traditions. You select six Nations and one Tradition you would like to feature for each Nation. How might the Attribute Listing tool assist you in selecting the Traditions to feature?

Other possible uses:

- Your team might use the Attribute Listing tool to aid in the Design and Construction of your _____.
- Your team might use the Attribute Listing tool to augment and enhance the supporting elements of your story.
- Your team could use the Attribute Listing tool to develop creative possibilities of types of adventures.
- Your team might use the Attribute Listing tool to develop a unique design for your Structure.
- **Instant Challenge:** How might this assist your team in preparing for your Instant Challenge?

Notes:

Trekking Tool: Solution Steps

Standards Addressed:

- Thinking and Reasoning: Applies decision-making techniques

Introduction:

Solution Steps is a *focusing tool*. This tool helps teams identify the original problem, examine the problem limitations (Considerations), generate a list of possibilities (How Might We...) and finally, come to a plausible solution. See the Blank Forms and Mini Posters section for Focusing Guidelines and the Solution Steps form.

Get Moving:

1. Use the Solution Steps form from the Blank Forms and Mini Posters section in this book.
2. The problem or task is written in the box under the title "Problem." Team members analyze the problem they need to solve.
3. In the box labeled, "Considerations," the team analyzes the limitations and the problems they face in finding a solution. They generate a list of things that are hampering a quick decision.
4. Next the team generates a list of possibilities. How might we.....? They examine the limitations listed in the previous box and determine possible ways to overcome these problems. They ask questions such as How might we.....and In what ways might we....and What if we...?
5. Finally, they determine a solution that solves the initial problem. They come to this solution by the previous steps of stating the problem, listing the limitations, thinking of ways to overcome these limitations, and finally determining a plausible solution.

Try This Out:

Possible Scenario:

- Your team might use Solution Steps to select your Story about cooperation.

Your team might use the Solution Steps Tool to determine the original story about _____.

Your team could use Solution Steps Tool to select music for your skit.

The Solution Steps tool can help your team decide how to incorporate the research into your skit.

Your team might use Solution Steps to focus in on a story about how the two different art forms could be merged.

- **Instant Challenge:** How might this assist your team in preparing for your *Instant Challenge*?



Trekking Tool

- Solution Steps is a focusing tool. This tool helps teams identify the original problem, examine the problem limitations (Considerations), generate a list of possibilities (How Might We...) and finally, come to a plausible solution.

Blank Forms and Mini-Posters

Generating Guidelines

- ✓ Many ideas
- ✓ Zany, wild ideas
- ✓ Defer judgment
- ✓ Piggyback on Ideas

Focusing Guidelines

- ✓ Use affirmative judgment
- ✓ Be deliberate
- ✓ Stay on course
- ✓ Consider novelty

S-M-L WORKSHEET

Overall

Task/Assignment: _____

Task	Short Term	Medium Term	Long Term	Who is Responsible

Evaluation Matrix

Evaluation Matrix

(Use with Trekking Tools Activity)

	Criteria 1	Criteria 2	Criteria 3	Criteria 4
Law 1				
Law 2				
Law 3				

Brainwriting

Morphological Matrix

1.					
2.					
3.					
4.					
5.					
6.					

A Lo U Worksheet

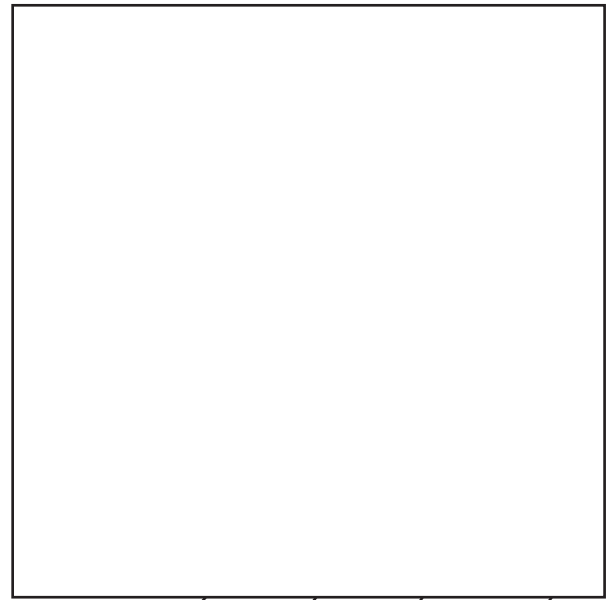
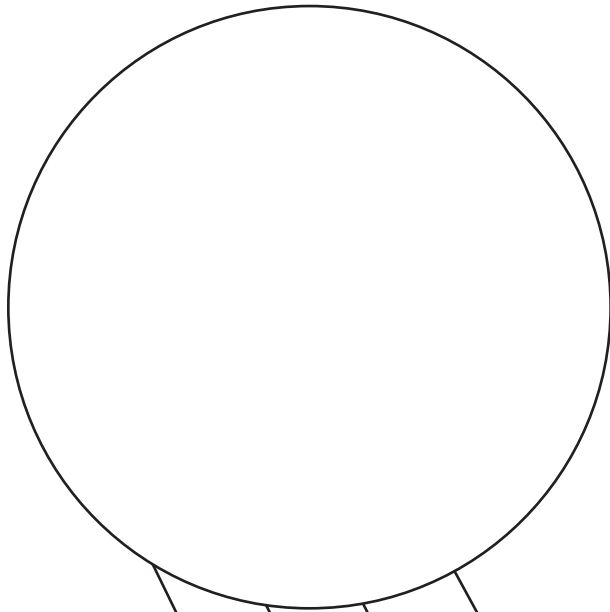
The option to be examined: _____

Advantages	Limitations and How to Overcome Them	Unique Features

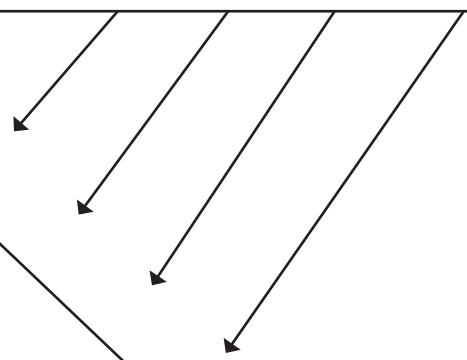
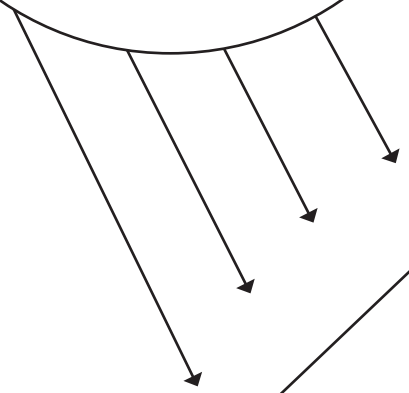
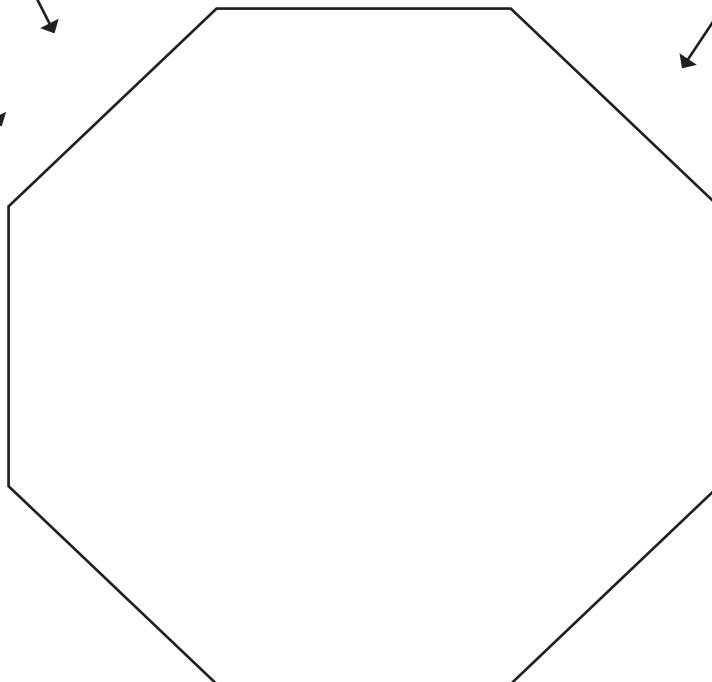
COMPROMISE

We

They



Us



SCAMPER

S- Substitute

C- Combine

A- Adapt

M- Magnify, Minify, Modify

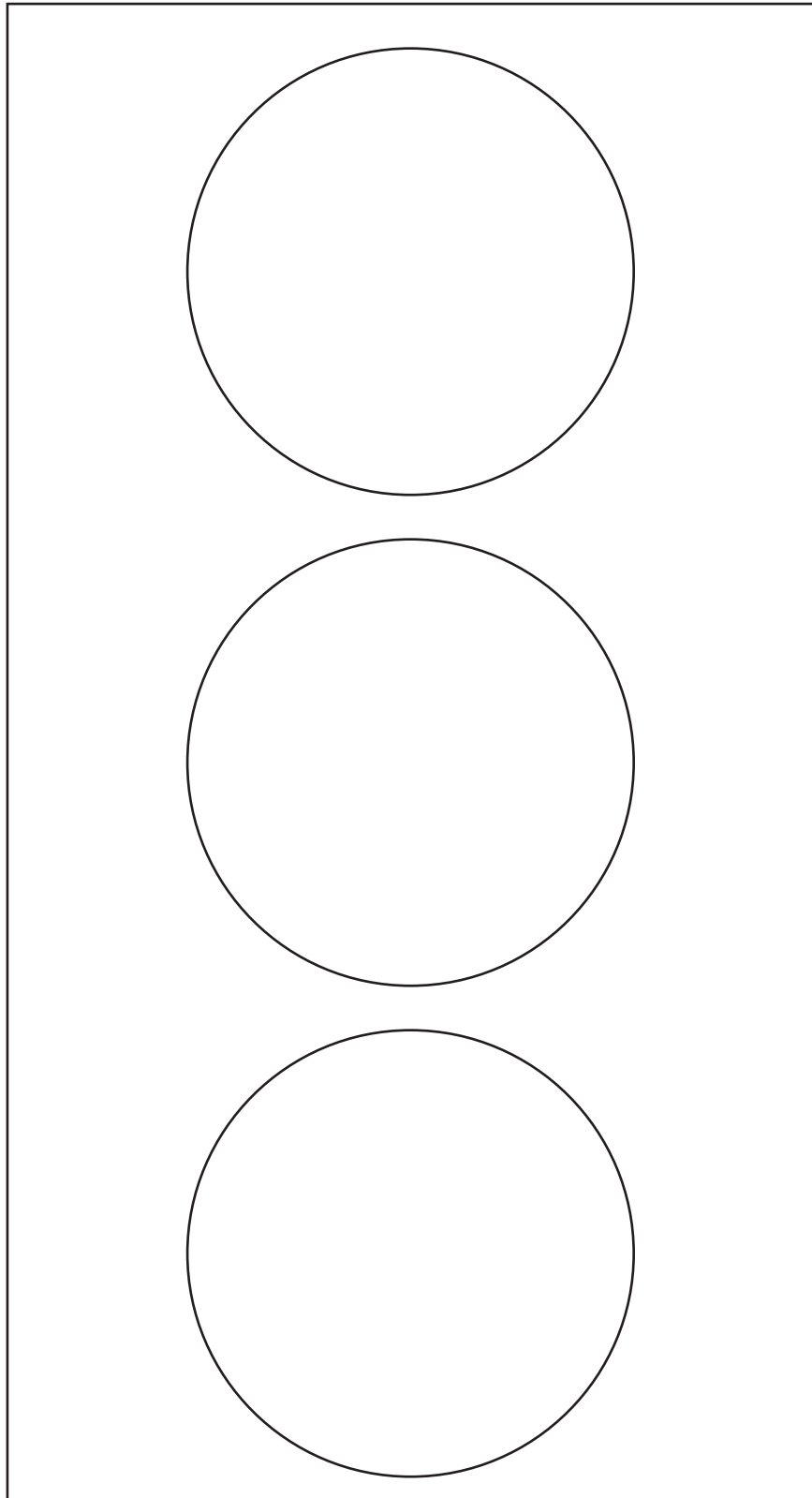
P- Put to other uses

E- Eliminate

R- Reverse or Rearrange

Signal

(Focusing Tool)

A large rectangular frame containing three vertically stacked empty circles, intended for a focusing tool activity.

Using the PCA Tool To Focus Options

List the options to be compared.

A _____ B _____ C _____

D _____ E _____ F _____

Look at all the pairs:

For each pair below, choose the one you prefer. Circle it. Enter a number to indicate how strongly you feel about your choice. (3 = very strongly prefer, 2 = moderate, 1 = close call)

A/B	<input type="text"/>	A/C	<input type="text"/>	A/D	<input type="text"/>	A/E	<input type="text"/>	A/F	<input type="text"/>
		B/C	<input type="text"/>	B/D	<input type="text"/>	B/E	<input type="text"/>	B/F	<input type="text"/>
				C/D	<input type="text"/>	C/E	<input type="text"/>	C/F	<input type="text"/>
						D/E	<input type="text"/>	D/F	<input type="text"/>
								E/F	<input type="text"/>

Use the results to rank order or prioritize the options.

Total scores for: A _____ B _____ C _____ D _____ E _____ F _____

Rank or priority: My top choice was: _____

2nd choice was: _____ 5th choice was: _____

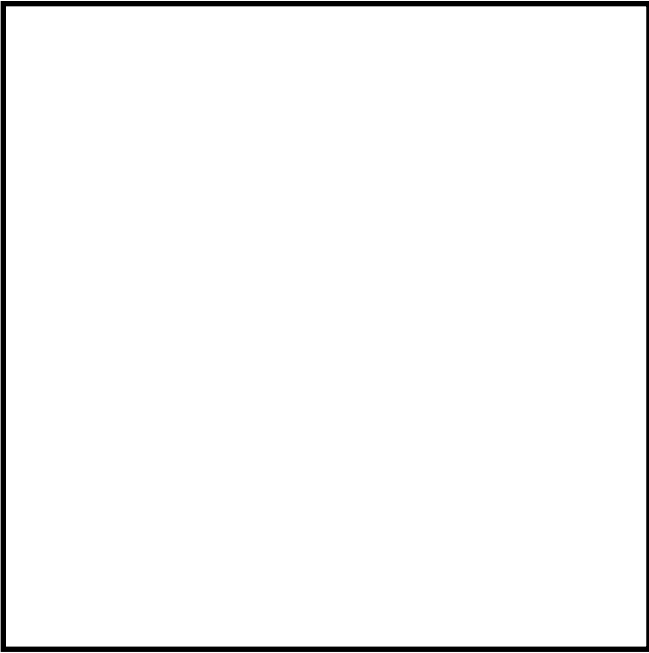
3rd choice was: _____ 6th choice was: _____

4th choice was: _____

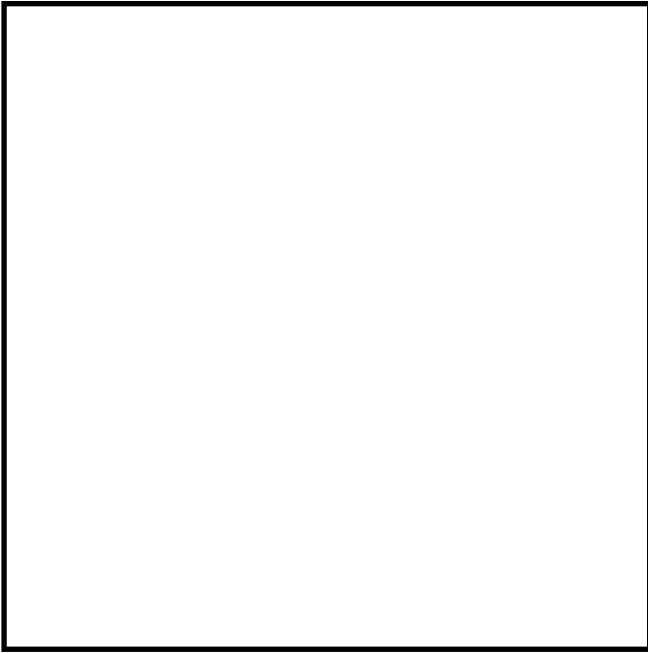
Source: Treffinger & Nassab (1977), *Thinking Tools Lessons*; Adapted from Treffinger (1994), *Creative Problem Solver's Guidebook*. Reproduced with permission from *Thinking Tool Guides* (1998), Center for Creative Learning.

Solution Steps

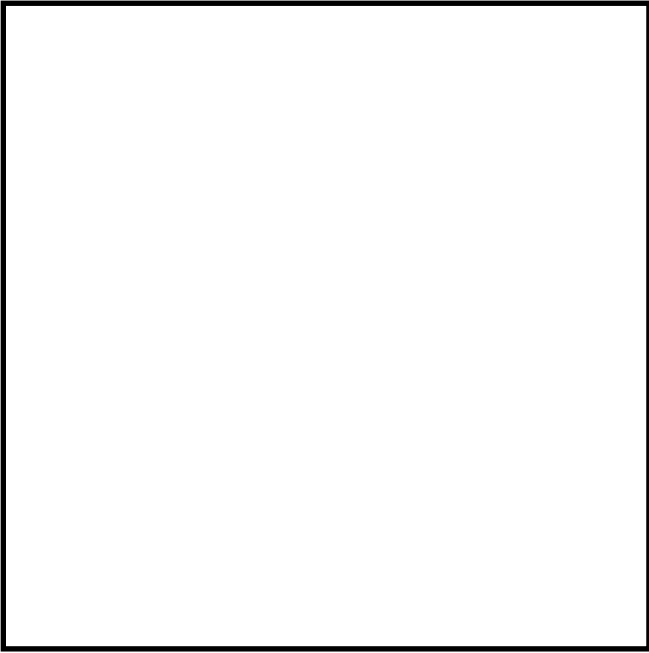
Problem



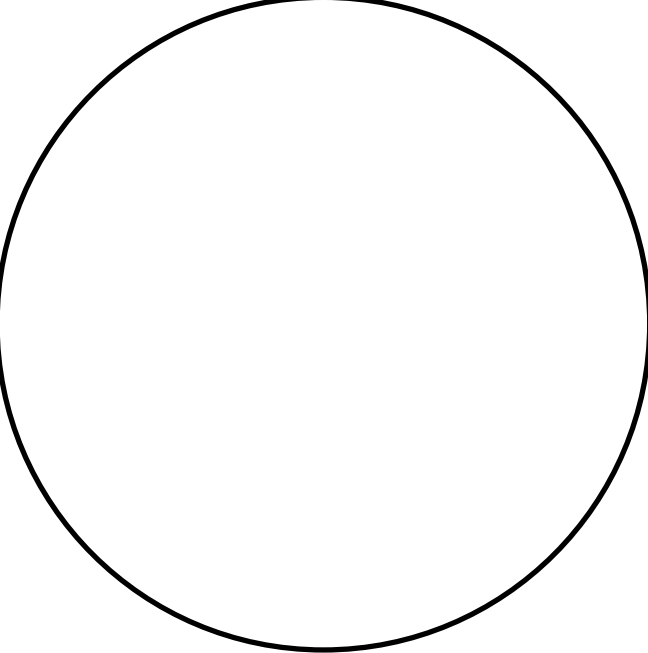
Considerations



How Might We...?



Solution



K-W-L

Know	Want to know	Learned