Unit: Locomotor Skills/Movement Forms   Grades: K-2

Key: PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule. Students determine that staying in personal space will keep them safe. (PT)	*Categorization – analyze information and sort it into meaningful categories.* Students categorize movements as animal movements or locomotor skills. (AT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints*
Predicting Outcomes – make and test predictions. "What will happen if I'm not looking where I'm going?" (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis.* Students observe that they sometimes move towards the middle of the gym in large groups. (AT)	*Improving Solutions – given a solution, they are asked to improve it.* Students determine a way to prevent moving to the middle. (PT/AT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies*	*Creating and Designing – create or design a product, experiment, or problem to solve.* Students play the game Sculptor. (CT) Students create their own ways of moving. (CT)

Problem Solving

Grades: 3-5

Unit: Teambuilding

Key: PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule "What similarities are there between sportsmanship, communication, and teamwork?" (AT)	*Categorization – analyze information and sort it into meaningful categories* "Which part of _____ was the easiest/hardest for you?" (AT/PT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* "What can we say about the way you are trying this?" (AT)
Predicting Outcomes – make and test predictions "What do you think will happen if we try this idea?" (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis* "How many times have we tried doing it this way? How many times has it worked?" (RT)	*Improving Solutions – given a solution, they are asked to improve it* "How can we improve our teamwork/sportsmanship/communication during this activity?" (AT) "Is there a better idea?" (AT) "How can we make _____ more/less challenging?" (AT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students provide examples of items listed on the "Do/Don't Do" lists. (PT)	*Creating and Designing – create or design a product, experiment, or problem to solve*

Problem Solving

Unit: Fitness Concepts   Grades: 3-5

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students determine that strength activities only target one area of our body, whereas endurance activities work the whole body. (PT)	*Categorization – analyze information and sort it into meaningful categories* Students sort teacher provided activities as either strength or endurance. (PT/AT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* Students determine which fitness area they need the most improvement on. (AT/RT)
Predicting Outcomes – make and test predictions	*Observing and Experimenting – observe and record data and determine a hypothesis* Students use FitnessGram results to identify fitness areas they need to improve. (AT/RT)	*Improving Solutions – given a solution, they are asked to improve it* "How can you improve your running/push-ups/strength scores?" (AT/PT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students create lists of strength activities and endurance activities. (CT)	*Creating and Designing – create or design a product, experiment, or problem to solve* Students create a fitness plan. (CT)

Problem Solving

Unit: Throwing/Catching   Grades: K-2

Key: PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule. Students determine that whenever we throw, we need to take a step.	*Categorization* – analyze information and sort it into meaningful categories. Students identify different sports where different types of throws are used. Students identify throws as either underhand or overhand.	*Drawing Conclusions/Justifying Solutions* – draw conclusions based on data presented in many forms and viewpoints
Predicting Outcomes – make and test predictions. Students identify which type of throw will be the easiest.	*Observing and Experimenting* – observe and record data and determine a hypothesis. Students determine whether or not the throw was easy or hard based on the number of makes/misses.	*Improving Solutions* – given a solution, they are asked to improve it. Students are expected to give partner feedback on: • Looking at target (Kg – 1) • Step w/ opposite (2)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas* – generate idea lists, look for analogies	*Creating and Designing* – create or design a product, experiment, or problem to solve. Students create their own way of throwing at a target. (CT)

Unit: Throwing/Catching
Grades: 3-5
Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students determine that whenever we manipulate an object, we need to take a step.	*Categorization – analyze information and sort it into meaningful categories*	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* Students determine if they are in a high, medium, or low ability with regards to their throwing skills.
Predicting Outcomes – make and test predictions "Where will the ball go if I let go of it too early or late?"	*Observing and Experimenting – observe and record data and determine a hypothesis* Students determine that stepping helps give us more power in a throw. Students determine that looking at our target the whole time helps improve our accuracy. Students determine that a proper follow through helps improve our accuracy.	*Improving Solutions – given a solution, they are asked to improve it* "How can your partner (or you) improve (a specific part of throwing)?"
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students identify ways to demonstrate the BIG 3 during different games.	*Creating and Designing – create or design a product, experiment, or problem to solve*

Problem Solving

Unit: Volleying   Grades: K-2

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students determine that volleying has underhand hits and overhand hits, similar to throwing. (PT)	*Categorization – analyze information and sort it into meaningful categories* Students identify a volley as either underhand or overhand. (PT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints*
Predicting Outcomes – make and test predictions "How well will you do if you hit the ball too hard?" (AT) "Will this type of volleying be easy or difficult?" (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis* Students determine which type of volleying was the easiest based on their highest total of consecutive volleys. (RT/AT)	*Improving Solutions – given a solution, they are asked to improve it* "How can you be more successful with your volleying?" (AT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students identify different body parts they can volley with. (PT/CT)	*Creating and Designing – create or design a product, experiment, or problem to solve* Students create their own way of volleying. (CT)

Problem Solving

Unit: Volleyball Grades: 3-5

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students understand that serving a volleyball and throwing both require a step to help give us power. (PT)	*Categorization – analyze information and sort it into meaningful categories* Students identify the follow through part of different types of volleyball hits. (PT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* Students determine which team scored a point during a volleyball game. (PT)
Predicting Outcomes – make and test predictions "Where will the ball go if I swing my arms higher than my head during a bump?" (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis* "Where did the ball go when you swung your arms like that? Why did it go that way?" (AT)	*Improving Solutions – given a solution, they are asked to improve it* "How can you/your partner improve the bump/set/serve?" (AT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies*	*Creating and Designing – create or design a product, experiment, or problem to solve*

Problem Solving

Unit: Rhythms/Dance Grades: K-2
Key: PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Determine that dances consist of 8 count movements. (PT)	*Categorization – analyze information and sort it into meaningful categories* Create a list of upper body and lower body movements done during a dance. (PT/CT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* "How many 8 counts does this song use before a change?" (PT)
Predicting Outcomes – make and test predictions "What will happen if…" The song is faster than the previous song? (HR and dance) (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis* "How many 8 counts does this song have? How many 8 counts would the dance have?" (AT/rI)	*Improving Solutions – given a solution, they are asked to improve it*
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which "Is that something we usually do when we do this chore (ex. shoveling the driveway while doing yard work)?" (PT)	*Generating Ideas – generate idea lists, look for analogies* Create a list of things done during a chore to make a chore dance. (PT/CT)	*Creating and Designing – create or design a product, experiment, or problem to solve* Spaghetti Dance (CT) Chore Dance (CT) Freeze Dance (CT)

Problem Solving

Unit: Tinikling   Grades: 3-5

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Determine that slalom is a type of skiing. (PT) Students determine turns happen on beats 3 and 7/feet apart/out of the trap. (AT)	*Categorization – analyze information and sort it into meaningful categories* *Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* "Did they change steps on an 8 count?" (AT) "How many 8 counts did this dance use before a change?" (AT) "Which way do we face?" (AT)

Predicting Outcomes – make and test predictions
 "What might happen if…"
    People change a step at different times? (AT)
    People bring the sticks too high? (AT)
    People don't move their feet apart? (AT)
 "What do you think that step looks like?" (AT)
	Observing and Experimenting – observe and record data and determine a hypothesis
	 Track the number of dancers vs. the number that change on an 8 count correctly. (RT)
	 Improving Solutions – given a solution, they are asked to improve it
	 "How can we improve…"
	    The way the rhythm is done? (AT)
	    The way the step is done? (AT)
	    The way the dance was done? (AT)
	 "What does this class need to improve upon the most?" (AT/RT)

Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which "Were there any added moves that were not necessary?" (AT)	*Generating Ideas – generate idea lists, look for analogies* Generate a list of previously learned steps. (CT) Use the tinikling planning cards to help create a dance. (CT/PT) *Creating and Designing – create or design a product, experiment, or problem to solve* Create a dance based on previously learned steps and using the tinikling planning cards. (CT)

Problem Solving

Unit: Tumbling

Grades: K-2

Key: PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students identify similarities between pencil and log rolls, and they also identify similarities between forward and backward rolls. (AT/PT)	*Categorization – analyze information and sort it into meaningful categories* Students identify moves as tumbling or balance. (PT/AT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints*
Predicting Outcomes – make and test predictions Students predict which balances will be easy or hard. (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis* Students determine which balances were easiest/hardest based on their experiences. (RT) Students determine that looking at the ground helps improve their balance. (RT)	*Improving Solutions – given a solution, they are asked to improve it* "How can you make yourself more steady when balancing?" (AT) "How can you make your roll smoother?" (AT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students create lists of when they have seen someone do these types of rolls (movies, WWE, sports, video games, etc.). (CT/PT)	*Creating and Designing – create or design a product, experiment, or problem to solve* Students create their own beanbag challenges. (CT) Students create their own way of balancing on their bottoms. (CT)

Problem Solving

Grades: 3-5

Unit: Tumbling

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students determine the role of spotters. (AT/PT) Students identify similarities between tip-up, tripod, and headstand. (AT)	*Categorization – analyze information and sort it into meaningful categories* During a test, students identify the stunt described on a card. (AT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* During partner stunts, students determine how to do a particular move. They then will determine which groups need help performing the move they mastered. (AT)
Predicting Outcomes – make and test predictions "What will happen if I don't keep my chin tucked to my chest?" (AT) "If I fall during an inversion stunt, what should I do to keep myself safe?" (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis* Students use their journals to identify and improve their tumbling skills. (RT)	*Improving Solutions – given a solution, they are asked to improve it* "How can you make your roll smoother and easier?" (AT) Students give each other feedback based on head and hand placement during tripod and headstand. (AT/PT) Students give feedback during partner stunts. (AT/PT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students identify times when they have seen someone do a particular roll (movies, sports, WWE, video games, etc.). (PT) Create a list of things spotters do. (CT/PT)	*Creating and Designing – create or design a product, experiment, or problem to solve* Students visualize a triangle on a mat when doing tripods and headstands. (CT)

Problem Solving

Unit: Kicking/Soccer (Jump Rope)   Grades: All

Key: PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students determine that soccer defines hands as fingers to arms. (PT) Students determine that they use their hands after they shoot.	*Categorization – analyze information and sort it into meaningful categories* "What type of fitness activity is soccer – endurance or strength?" (AT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* "Where do we need to look when we dribble? Why?" (AT) "Why did you fall when you trapped the ball?" (AT)
Predicting Outcomes – make and test predictions "If you follow through going in this direction, where will the ball go?" (AT) "What's going to happen in a few minutes? (Switch goalies)" (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis* How many times did your partner have to take more than 2 steps to trap the ball? (RT) Is your heart beating faster or slower after exercising? What does that mean? (RT) "What did you notice happened to the ball if a shooter got too close?" (RT)	*Improving Solutions – given a solution, they are asked to improve it* "How can someone improve their control while dribbling?" (AT) "What can you do differently to prevent falling when you trap the ball?" (AT) "How can your partner make sure they kick the ball straight?" (AT) "What can a shooter do so the goalie cannot get the ball before they shoot?" (RT/AT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Create a list of body parts allowed to use in soccer. (PT) Create a list of things that happen to our bodies while exercising. (PT)	*Creating and Designing – create or design a product, experiment, or problem to solve* Create your own jump rope trick. (CT) Create a jump rope routine. (CT)

Problem Solving

Unit: Basketball   Grades: K-2

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students determine that we need to step when making a pass, just like when we throw a ball. (PT) Students determine that we should keep our hand round, not flat, when dribbling. (AT)	*Categorization – analyze information and sort it into meaningful categories* Students determine whether they need to do toss-ups or bounce catches. (AT) Students categorize a goal as either easy or hard to score on. (AT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* Students determine which goal was the easiest to score on. (AT) "Why do we want to look forward when we dribble?" (PT) "How would you rate your dribbling (slapping, eyes, height)?" (AT)
Predicting Outcomes – make and test predictions Students predict which goal will be easiest to score on. (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis* Students determine which part of dribbling they are best at and which part their partner needs to work on the most. (AT/RT) Students determine if their scoring prediction was correct. (RT)	*Improving Solutions – given a solution, they are asked to improve it* Students provide feedback on their partner's dribbling skills (eyes forward, waist high, don't slap). (AT) "What does your partner need to work on the most?" (AT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students create a list of what is easy/hard about dribbling? (AT/CT) Students create a list of times we receive feedback outside of school. (PT/CT)	*Creating and Designing – create or design a product, experiment, or problem to solve* Students create their own way to dribble a ball. (CT)

Problem Solving

Unit: Striking   Grades: K-2

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students determine what similarities all striking sports share. (AT) Students determine what sport the activity practices. (PT/AT)	*Categorization – analyze information and sort it into meaningful categories* Students identify activities as either striking or non-striking. (PT/AT) *Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* Students justify, their prediction of what sport is being practiced that day. (PT) "When do we use underhand/overhand strikes?" (AT)
Predicting Outcomes – make and test predictions Students predict whether they will be better at overhand or underhand strikes. (AT) Students infer the sport being practiced based on background knowledge and equipment displayed. (AT/PT)	*Observing and Experimenting – observe and record data and determine a hypothesis* Students observe and record successful hits with underhand and overhand. (RT) *Improving Solutions – given a solution, they are asked to improve it* "How can you improve how well you hit the ball?" (AT) "How can your partner improve their hitting?" (AT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students create a list of striking sports. (PT/CT) *Creating and Designing – create or design a product, experiment, or problem to solve* Create your own challenge with paddles. (CT) Create your own challenge with noodles. (CT)

Problem Solving

Unit: Baseball   Grades: 3-5

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students determine what similarities all striking sports share. (AT) Students identify parts of their bodies fatigued by different activities. (PT)	*Categorization – analyze information and sort it into meaningful categories* Students identify sports as either striking or non-striking. (PT/AT) Students determine the difference between muscular endurance activities and cardio endurance activities. (AT/PT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints*
Predicting Outcomes – make and test predictions Students predict where people are moving and try to trap them (scooters). (AT) Students predict where the ball will go when hit. (AT) Students predict which type of throw (underhand/overhand) will be hardest to hit. (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis* Students track their hits and misses to determine if their prediction was correct. (RT)	*Improving Solutions – given a solution, they are asked to improve it* "How can your partner improve their hitting/fielding?" (AT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students create a list of striking sports. (PT/CT)	*Creating and Designing – create or design a product, experiment, or problem to solve* If a student were to design a baseball glove, what features would it have? (CT)

Problem Solving

Unit: Hockey   Grades: 3-5

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students determine what similarities all striking sports share	*Categorization – analyze information and sort it into meaningful categories* Students identify sports as either striking or non-striking.	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints*
Predicting Outcomes – make and test predictions Students predict who will win the 1 on 1 noodle hockey game.	*Observing and Experimenting – observe and record data and determine a hypothesis* Students keep score during the game to determine if their prediction is correct.	*Improving Solutions – given a solution, they are asked to improve it* "How can you improve your puck handling skills?"
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students create a list of striking sports.	*Creating and Designing – create or design a product, experiment, or problem to solve* "What are some things a safe hockey helmet would have?"

Problem Solving

Unit: Tennis   Grades: 3-5

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students determine what similarities all striking sports share	*Categorization – analyze information and sort it into meaningful categories* Students identify sports as either striking or non-striking.	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints*
Predicting Outcomes – make and test predictions Students predict which court they will end up on during our king/queen of the mountain tournament.	*Observing and Experimenting – observe and record data and determine a hypothesis* We play a tournament and determine whether or not their prediction was accurate.	*Improving Solutions – given a solution, they are asked to improve it* "How can you improve how you hit the ball?"
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students create a list of striking sports.	*Creating and Designing – create or design a product, experiment, or problem to solve*

Problem Solving

Unit: Hula Hoops/Scooters   Grades: K-2

Key: *PT = Practical Thinking, AT = Analytical Thinking, CT = Creative Thinking, RT = Research-Based Thinking*

Abstraction – pulling out similarities to form an idea; given several examples, students determine a rule Students identify similar ways we move our bodies to move the hula hoop. (AT) Students determine the hula hoop must start against our body. (AT)	*Categorization – analyze information and sort it into meaningful categories* Students sort different ways to ride the scooter as safe or unsafe. (PT)	*Drawing Conclusions/Justifying Solutions – draw conclusions based on data presented in many forms and viewpoints* Students determine the fastest way to ride a scooter. (AT) Students determine easier way to ride the scooter between using legs or arms. (AT)
Predicting Outcomes – make and test predictions Students predict which way will be easiest for them to hula hoop. (AT)	*Observing and Experimenting – observe and record data and determine a hypothesis* Students perform challenges to test their predictions. (RT)	*Improving Solutions – given a solution, they are asked to improve it* Students give feedback to each other about their hula hooping abilities. (AT) "If the hoop is going up/down, does that mean you are going too fast/slow?" (AT)
Identifying Relevant/Irrelevant Information – given relevant and irrelevant information & determine which is which	*Generating Ideas – generate idea lists, look for analogies* Students create a list of ways to be safe on the scooter. (CT/PT)	*Creating and Designing – create or design a product, experiment, or problem to solve* Students create their own hula hoop challenge. (CT) Students imagine and recreate what it looks like to jump rope with a hula hoop. (CT)