



runjumpthrow
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ADDENDUM

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CHIEF PUBLIC AFFAIRS OFFICER

JILL M. GEER

ASSOCIATE DIRECTOR, COMMUNITY PROGRAMS

TALIA MARK

COMMUNITY PROGRAMS COORDINATOR

ANDREA ATTEBERRY

LESSON PLAN DEVELOPER

DR. MATTHEW LYDUM, PH.D.

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132 East Washington St., Indianapolis, IN 46204-3723
Phone 317.261.0500 | Fax 317.261.0514 | usatf.org

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ADDENDUM FOR PHYSICAL EDUCATORS

STATION DESCRIPTIONS

INTRODUCTION

Intended for use by trained physical educators, this material provides background and context for the activities presented in the basic RunJumpThrow lesson plan and is to be read and used as an addendum to that lesson plan. The content is linked to best practices, theory, research, youth development, and is in alignment with SHAPE America's National Standards and Grade-level Outcomes for K-12 Physical Education.

Specifics about how to set up equipment, sets and repetitions, and other situation dependent variables are included here to support teacher lesson planning.

2.1. POSTURE AND BREATHING

Many children spend many hours each day with a dangerously collapsed posture. The consequences on their neural-muscular/muscular-skeletal system are evident. In order to effectively teach running, jumping, and throwing, posture and breathing must be taught as a skill.

ADVANCED CONTENT FOR THE BELLY BREATHING INSTRUCTIONAL SEGMENT

•Teach about the diaphragm, the dome-shaped muscle above the stomach that when flexed pushes the belly out and draws air into the lungs like a billow.

- Muscles of the core stabilize and articulate. Here, for the posture and breathing from the ground up lesson, the diaphragm is associated with the “heart & lungs” as it is so directly related with breathing biomechanics.

2.2. LOOSEN-UP FROM HEAD-TO-TOE

This routine reinforces and builds upon the posture and breathing instruction while beginning to put the body through progressively more intense range-of-motion.

CAN BE DONE INSIDE IN A CLASSROOM

Shag-jog in place. “Muscles hang loosely on your bones” Payton Jordan.

CONTROL INTENSITY (PERCEIVED EXERTION) AND POSTURE WHILE MOVING JOINTS DELIBERATELY THROUGH RANGE-OF-MOTION

The purpose is to warm-up the body for the demands of running, jumping and throwing in a fun and safe way. The routine is a low-intensity version of the more advanced “Dynamic Warm-up”. It is important here to learn how to pay attention to your body and explore your range of motion without any stress or strain.

OUTCOMES:

- Loosen-up and develop range of motion useful for all activity
- Learn and practice self-regulation as this is a controlled, sub-maximum intensity activity

2.3. THE SIXTH SENSE: BALANCE MOVES

CHILDREN AND TEACHERS LEARN AN IMPORTANT BIG WORD IN THIS STATION: PROPRIOCEPTION!

In contemporary anatomy and physiology, “proprioception” is considered the sixth sense along with the traditional five: sight, hearing, touch, taste and smell. Proprioception is sensing body positions. Balance activities challenge and improve this sense. Being able to control the body starts with good balance. The purpose of this station is to practice the skills associated with balance. Practice what you have learned about posture and breathing while you improve your balance.

OBJECTIVES:

- Learn and demonstrate skills associated with balance
- Apply skills learned in posture and breathing lessons

OUTCOME:

- Greater proprioceptive awareness allows you to change direction faster in other sports

2.4. DYNAMIC WARM-UP

THIS SET OF EXERCISES IS MORE INTENSE THAN THE LOOSENING MOVES DESCRIBED EARLIER

CUE:

- Move your arms, legs, and hips, quickly through big ranges of motion

THESE ARE LARGE RANGE-OF-MOTION ACTIVITIES THAT LEAD UP TO EXPLOSIVE MOVES SO THAT CHILDREN ARE READY TO SPRINT AND JUMP

CHECKPOINT:

- The ability to maintain posture, (strong feet, hips underneath, good complete breaths, neck and head relaxed and aligned) at higher speeds of movement demonstrates more advanced postural control. Even in elite adults, there is often a point of postural breakdown at a certain point based on speed of movement, range of motion, or fatigue.
- As complexity and speed of movement increase, postural break-downs and deficiencies reappear

OBJECTIVES:

- Learn and demonstrate leg swings, eagles, and shoulder-blade cycling
- Extend what was learned in the loosening move lessons about posture and range of motion

OUTCOMES:

- Assess hip strength and range of motion
- Develop range of motion specific to running, jumping and throwing

2.5. LOCOMOTIVES

Traditional line drill movements such as high knees, carioca, and backwards running are broken down and explained. This station is skill specific as well. It includes track & field specific instruction in running mechanics drills and instructional sequences.

OBJECTIVES:

- Learn and demonstrate high knees, high knees with extension, side skips, mummy walks, and other locomotive moves
- Apply postural control and stability skills while learning running mechanics and skills

OUTCOME:

- Develop lateral stabilizers to reduce injuries and improve performance

2.6. FIND YOUR GEARS

CONSISTENTLY AND CONSTANTLY REINFORCE POSTURE AND BREATHING AS YOU GET KIDS RUNNING WITH THIS FUN INTRODUCTION GAME. BEGIN TO TEACH THE SKILL OF PACING

The set-up is conducive to learning for this introductory lesson. The lesson is content dense. That is to say that for kids hearing the information for the first time there will be a lot of new information. Running for brief periods followed by coming back to the center for instructions allows the attention to be on learning about running while resting between efforts.

THIS GAME IS THE BEGINNING OF A DEVELOPMENTAL CONTINUUM OF LEARNING THE SKILL OF PACING



2.7. READY, SET, GO!

THE PURPOSE IS TO LEARN AND DEMONSTRATE AGE-APPROPRIATE SKILL DEVELOPMENT RELATED TO ACCELERATION

Kids practice the preliminary positions, reaction time, and extending at the hip, knee, and ankle to push toward the finish line. Learning about acceleration is a high quality task, it is important to keep the environment controlled.

OBJECTIVES:

- Learn and demonstrate skills related to acceleration: set position, reaction time, and complete hip extension
- Use these elements of skill to rehearse sprint starts

OUTCOMES:

- The ability to demonstrate the skill of acceleration is a distinct advantage
- Greater reaction time and acceleration is very useful in other sports

ADVANCED CONCEPTS Reaction Time

2.8. LEARNING ABOUT RUNNING

ALIGNMENT TO SHAPE AMERICA'S NATIONAL STANDARDS & GRADE-LEVEL OUTCOMES FOR K-12 PHYSICAL EDUCATION

- Runs with a mature pattern. (S1.E2.2a)
- Travels showing differentiation between sprinting and running. (S1.E2.3)
- Runs for distance using a mature pattern. (S1.E2.4)
- Uses appropriate pacing for a variety of running distances. (S1.E2.5)
- Travels showing differentiation between jogging and sprinting. (S1.E2.2b)

2.9. LEARNING ABOUT JUMPING

THE SKILLS RELATED TO JUMPING ARE LEARNED AND PRACTICED IN THIS STATION. THE PURPOSE IS TO DEVELOP AN UNDERSTANDING OF THE FUNDAMENTALS OF JUMPING THAT CAN BE APPLIED TO TRAINING AND COMPETITIVE TECHNIQUE LATER

Children are introduced to jumping by practicing a continuum of jumping skills. The cues and elements for learning about jumping represent a repertoire of jumping activities presented as a developmental continuum. That is to say that the initial moves are more accessible and that proficiency in the fundamentals is necessary to progress. Postural breakdown and long ground contact time means it is time to rest.

OBJECTIVES:

- Develop an understanding of the fundamentals of jumping that can be applied to training and competitive technique later
- Show current jumping ability (diagnostic for advancing to pizza box hurdles later)

OUTCOMES:

- Jumping ability can be improved. This station allows kids to see their current ability to coordinate explosive power
- Coordinated explosive power represented in jumping transfers to many sports (basketball, volleyball, etc.)

2.10. LEARNING ABOUT THROWING

THE SKILLS OF THE SINGLE-ARM OVERHAND THROW ARE INTRODUCED HERE AND IN ALIGNMENT WITH SHAPE AMERICA'S NATIONAL STANDARDS & GRADE-LEVEL OUTCOMES (S1.E14.3)

ONE OVERHAND THROWING ACTIVITY IS THE OVERHAND SOFTBALL THROW FOR DISTANCE

This test is accessible to most children. Exposure to the move is widespread and proficient patterns are easily mastered.

KEY WORDS Rotator cuff, stability exercises

2.11. LESSON ON RULES

UNDERSTAND THAT THERE ARE A LOT OF DISTRACTIONS HAPPENING WHEN KIDS ARE MOVING AROUND A MULTI-STATION CLINIC

Set up a time and place specifically to talk about the rules of any upcoming competitions. Make sure everyone understands the rules.

DURING PLAY AND PRACTICE, DISAGREEMENTS ABOUT THE RULES AMONG CHILDREN AND/OR LEADERS ARE DISTRACTING

Everyone knowing, understanding and following the rules makes the environment safer and fairer. Aligns with standard 4 of SHAPE America's National Standards for K-12 Physical Education.

2.12. FUN WITH RELAYS

RELAYS PROVIDE TEAMWORK EXPERIENCES

Attributes associated with teamwork include accountability, interdependence, and getting along with others.

2.13. BE THE LEADER

This is a "strengthen your wind game" as well as a chance to reinforce technical and tempo skills of running. "Wind", like the wind the blows the leaves, refers to the cardio-vascular or cardio-respiratory systems.

THIS IS GOOD PLACE FOR CHILDREN TO RECEIVE THE IMPORTANT LESSON ON THEIR HEART RATE

OBJECTIVES:

- Demonstrate respect, teamwork, and cooperation
- Learn and demonstrate the skill of pacing

2.14. IMAGINATION STATION

Some kids have very powerful imaginations and can take the suggestion to imagine themselves as a track & field superstar. Others will struggle with this activity. But using imagination as a skill is something everyone can improve on.

RELATED WORDS Self-efficacy, visualization

OUTCOMES:

- Exposure to track & field skill at the highest level
- Strengthen the imagination with practice!

2.15. PIZZA BOX HURDLES (ADVANCED)

PROVIDE AN ADVANCED RUNNING CHALLENGE BY ADDING SAFE BARRIERS

OBJECTIVES:

- Learn and demonstrate controlled, rhythmic running over barriers
- Apply skills learned in posture, balance, running and jumping lessons to modified hurdling skills

OUTCOMES:

- Ability to perform this complicated rhythmic running task demonstrated high levels of athleticism
- Exposure to hurdles. Some children will love it and want to find a club and start training!

2.16. TEMPO WORK (ADVANCED)

Tempo work is a more organized and advanced version of the playful and introductory “Find Your Gears” station. Strategies are provided for creating fun and worthwhile tempo work on modified courses and tracks. Concepts from adult training such as intervals, repeats, and fartlek are modified for children. Children of all fitness levels can improve the skill of pacing.

CONTEMPORARY TRAINING THEORY SUGGESTS THAT PRE-PUBESCENT CHILDREN LACK CERTAIN ENZYMES THAT ENABLE ADAPTATION TO IMPROVED METABOLIC EFFICIENCY

Metabolic efficiency is generally the goal of the controlled stimulus coaches create with tempo work such as intervals, repeats, and fartlek. So why do this type of advance work with children? The primary goal of doing this exercise with children is to teach the skill of pacing.

SPECIFIC ADVANCED GOAL

Demonstrate consistent pace with good posture

THE TYPICAL MISCONCEPTION IS THAT THIS HAS TO BE “HARD WORK”

This is totally wrong. This is an advanced skill that can be done at any fitness level.

The pacing skill is reinforced here with advanced instruction on tempo. Developmentally appropriate fundamental understandings are formed for skills related to learning intensity and self-regulation such as race pacing and interval training.

OBJECTIVES:

- Learn the difference between intervals, repetitions, and fartlek
- Demonstrate advanced pacing and tempo skill

OUTCOMES:

- This type of training improves cardio-respiratory function
- Deep understanding of pace and tempo (and the skill to do it) is a competitive advantage
- Stronger bones

2.17. SCISSOR HIGH JUMP (ADVANCED)

TALENT IDENTIFICATION

There are kids that can leap out there. A very, very few kids will be able to easily scissor-jump a ribbon nose height and land safely on their feet. Introduce these kids to a highly trained and athlete-centered local track coach.

2.18. HOMEWORK

MOVES YOU CAN USE

Use postural control as the starting point and continual framework for teaching general strength moves. Children must first hold their body in proper posture.



2.19. RANGE OF MOTION

ALIGNMENT WITH SHAPE AMERICA'S NATIONAL STANDARDS & GRADE-LEVEL OUTCOMES FOR K-12 PHYSICAL EDUCATION

- Identifies areas of needed remediation from personal test and, with teacher assistance, identifies strategies for progress in those areas. (S3.E5.4b)
- Analyzes results of fitness assessment (pre- & post-), comparing results to fitness components for good health. (S3.E5.5a)

2.20. COOL DOWN

THREE TIMES CLOUD HANDS

Working up to being able to slowly do nine times through the routine demands release of tension in the upper body and the recruitment of highly efficient slow twitch muscle fiber.

SECTION THREE

LESSON PLAN FOR A 5-6 RJT UNIT OR SERIES

PROGRESSION DESCRIPTIONS FOR 20 RJT STATIONS

The skill development activities described in the 20 stations can be extended over 5-6 weeks. Below are notes on progression for each station. Scope & sequence arranged into two sample unit block plans concludes the section.

3.1. POSTURE AND BREATHING

TEACHING POSTURE AND BREATHING IS PART OF TEACHING RUNNING, JUMPING, AND THROWING

DESCRIBE AND DEMONSTRATE HOW TO USE:

1. Feet & knees
2. Hips
3. Core
4. Lungs & heart
5. Neck & shoulders
6. Head to
7. Stand tall with a long vertical spine and breathe fully

Each of the elements can be explored further as the special focus for a seven day progression.

A DAILY ROUTINE OF HAVING A WARM-UP STATION DEDICATED TO POSTURE AND BREATHING

SAMPLE PROGRESSION

- DAY 1:** Introduce and practice routine with special focus on feet and knees
- DAY 2:** Practice routine with special focus on hips
- DAY 3:** Lesson on core and center-of-mass
- DAY 4:** Belly breathing lesson
- DAY 5:** Practice posture and breathing routine from ground up with special focus on relaxing neck and shoulders
- DAY 6:** Lesson on postural implications of our large heads
- DAY 7:** Practice posture and breathing lesson and bring it all together with a long and strong spine connecting the foot's sweet spot, your center of mass and the top of your head

3.2. LOOSEN-UP FROM HEAD-TO-TOE

DO THIS ROUTINE AT EACH SESSION FOR THE 5-6 WEEK UNIT

Sometimes the routine can be elongated and other times quite abbreviated. You can loosen your group up from top-to-bottom in 2-10 minutes.

THIS STATION IS A CHANCE TO SHAKE IT OUT AND GET LOOSE

Combine with locomotives fun warm-up. The routine involves multi-directional easy skipping combined with loosening moves for each major joint. A circle formation works well with the teacher in the center.

3.3. THE SIXTH SENSE

BALANCE MOVES

Over the course of 5-6 week unit, balance moves can be used in many different ways.

PROGRESSION:

WEEKS 1 & 2 Use balance as its own station or focus

WEEKS 3 & 4 Try balance activities mixed with other moves

Examples:

- Try a “Freeze” command during locomotive moves
- Put a few balance moves immediately following a focused session of tempo work

WEEKS 5 & 6 Try advanced balance moves

- Eyes closed
- Holding small weights or water bottles
- Standing on unstable surfaces (sand)

3.4. DYNAMIC WARM-UP

USE DYNAMIC WARM-UP BEFORE EVERY FULL SPEED RUNNING ACTIVITY (RELAYS, READY-SET-GO, LEARNING ABOUT JUMPING)

Progress with better focus on technique, complete range-of-motion and ease of motion. Maintain volume and increase precision.

3.5. LOCOMOTIVES

This can continue to be a skill instruction station for many years into an athlete’s career. Kids will quickly become adequate or proficient. Track & field skill demands more precision. As you progress, do not let this become a mindless warm-up. Continually reinforce posture, breathing and balance.

PROGRESSIONS OVER 5-6 WEEKS:

INCREASE VOLUME

Weeks 1 & 2 do 5-10m each move, weeks 3 & 4 twice through the routine, and weeks 5 & 6 try three times through the routine

INCREASE FOCUS

Work toward being able to hold foot, hip, shoulder and head in good posture

3.6. FIND YOUR GEARS

FIND YOUR GEARS IS AN INTRODUCTION GAME

Try it as a pre-test and take notes and video. See the amazing difference when kids are awesome at sophisticated and highly skilled intervals and repetitions just a few weeks later. Keep it fun and don’t strain as you progress. Teach the skill of pacing and technical running skill based on good posture and breathing.

3.7. READY, SET, GO!

Ready, Set, Go! can become a very technically skilled and mechanically efficient three-point start for a practice race in 5-6 weeks. This type of activity only needs to be done once per week.

PROGRESSION:

WEEKS 1 & 2 Playful multi-starts (include fun starting positions like on the belly or sitting cross-legged)

WEEKS 3 & 4 Bilateral multi-starts (each foot forward, 3-points with each arm forward)

WEEKS 5 & 6 Rehearse favorite start for practice meet

3.8. LEARNING ABOUT RUNNING

THIS STATION IS NOT THE PLACE TO INCREASE VOLUME

The lesson can be repeated once per week for a 5-6 week unit, but keep the volume the same and increase focus on technique. Specifically, improvements should be made linking the skills of posture, breathing, and balance to one's running or walking form. Increase volume with the other running activities (Be The Leader!, Fun With Relays! and tempo work).

3.9. LEARNING ABOUT JUMPING

Having the extended time over 5-6 to spread out instruction allows the event organizer to teach fundamental running skills before introducing jumping. In other words, teach the dynamic warm-up, acceleration, and provide some lessons on running before introducing jumping. The kids will be much more successful.

PROGRESSION:

WEEKS 1 & 2 Posture & Balance, Acceleration, Learning about Running

WEEKS 3 & 4 Learning about Jumping, maybe a practice meet

WEEKS 5 & 6 Jumping at practice meets, imagination station

3.10. LEARNING ABOUT THROWING

Overhand throwing for distance is an intense activity and should not be done every day. The move can safely be done once or twice per week so it fits in well to a 5-6 week track & field skills unit.

GRADUALLY INCREASE VOLUME TO UP TO 12 FULL-EFFORT THROWS

PROGRESSION:

WEEKS 1 & 2 Up to 8 total full-effort throws

WEEKS 3 & 4 Up to 10 total full-effort throws

WEEKS 5 & 6 Up to 12 total full-effort throws/practice meet

3.11. LESSON ON RULES

LESSONS ON RULES CAN BE FREQUENT AND OFTEN OVER THE COURSE OF A 5-6 WEEK UNIT OR IT COULD BE A ONE-TIME EVENT.

It could be part of a daily routine (first or last few minutes of practice, for example), or it could happen only once as a focused preview of the expectations for a practice meet.

3.12. FUN WITH RELAYS

As kids begin to understand the rules more and learn to run under control with good technique, the possibilities are great for what kind of fun you can have with relays over a 5-6 week unit.

BE CREATIVE AND ENJOY

3.13. BE THE LEADER

The second time kids do this activity they will already be much better. Make sure the intensity stays low and it can be done daily as part of the warm-up or cool down.

3.14. IMAGINATION STATION

Imagination is a teachable skill, but it is wise not to overdo it. Use this powerful lesson sparingly. Over the course of a 5-6 week unit, two organized sessions would suffice. Introduce the activity toward the beginning of the unit and include imagination in the final lessons.

3.15. PIZZA BOX HURDLES (ADVANCED)

With a 5-6 week unit you have time to set kids up for success with this activity. Bring out the pizza boxes only after clear demonstrations of running and jumping skill. Very fit and skilled children could run over the pizza boxes at low intensity with a focus on rhythm and posture every day as part of a warm-up.

3.16. TEMPO WORK (ADVANCED)

THE NATURE OF TEMPO WORK IS CONTROLLING AND PREDICTING PROGRESSIONS

Coaches for grown-ups and adolescents have a lot of fun scheming workouts with challenges increasing weekly

REMEMBER, SKILL IS THE FOCUS FOR CHILDREN AGE 7-12 FOR THIS EXERCISE

There is no need to strain or push or feel-the-burn. Increase the challenge by greater focus on learning the skill of pacing

3.17. SCISSOR HIGH JUMP (ADVANCED)

TO PROGRESS IN HIGH JUMP CHILDREN QUICKLY NEED SPECIALIZED EQUIPMENT

THE SCISSOR HIGH JUMP IS AN ADVANCED INTRODUCTORY GAME

THE ONLY WAYS TO PROGRESS ARE SKILL AND VOLUME

SKILL Improve precision in technique (consider grading for accuracy and style like a gymnast)

VOLUME Keep the bar at a very reasonable height and jump to increase number of trials or add up the vertical feet or meters

ADVANCED VARIATION a relay game of teams of 10 kids jumping over a .5m ribbon racing to 50m total vertical volume

3.18. HOMEWORK: MOVES YOU CAN USE

Children aged 7-12 will see almost daily gains in ability to perform body weight exercises. Most of this improvement comes simply from increased coordination caused by practice. Over a 5-6 week unit, children can get in enough repetitions to become skilled at the movements.

PROGRESSIONS OVER 5-6 WEEKS:

WEEK 1 Learn the moves and build a routine.

WEEKS 2 & 3 6 minute continuous circuit 3x per week

WEEKS 4 & 5 8 minute continuous circuit 3x per week

WEEK 6 10 minute continuous circuit 3x per week

INCREASE FOCUS Work toward nine times through the routine with less fidgeting and increasing

3.19. RANGE OF MOTION

SIGNIFICANT IMPROVEMENT CAN BE SEEN WITH DEDICATED PRACTICE OF THESE TESTS OVER 5-6 WEEKS

The routine of practicing the sit-to-stand test will become a good habit many children will carry with them for some time.

PROGRESSIONS OVER 5-6 WEEKS:

- The sit-to-stand, L7, and sit-reach tests can be done once per week over 5-6 weeks
- Use record keeping to track improvement
- Encourage some practice at home. These low-intensity moves can be done daily with reasonable volume.

ADVANCED VARIATION FOR CLASSROOM

Take before and after photos in the L7 position and use a protractor to measure the angle of the spine to the floor. For some children, increase in functional fitness will be dramatic.

3.20. COOL DOWN

THREE TIMES CLOUD HANDS

Ending each session with a routine of slow movements and deep breathing over a course of 5-6 weeks will have very powerful effects for some kids.

BE SURE TO SHARE SUCCESS STORIES

ADVANCED ELEMENTS:

- With arms to the side, hold breath while full of air for a few seconds between the downward sweep inhale and exhale
- Hold arches up with very slight bend in knees

PROGRESSIONS OVER 5-6 WEEKS:

INCREASE VOLUME

Weeks 1 & 2 do 3 x cloud hands, weeks 3 & 4 three sets of 3, and weeks 5 & 6 try nine times through the routine

INCREASE FOCUS

Work toward nine times through the routine with less fidgeting and increasing concentration



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