

# **Kindarobics – Pre-School Gross Motor Skills Project**

**February 2007 – September 2007**

**Project Funded by**



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## **Overview of Project**

The Kindarobics project was designed to promote gross motor skills\* and physical activity via:

- Education of childcare workers
- An information package for childcare staff
- A structured gross motor program

Funding for this project was provided by Families NSW.

### **Target Population**

3-5 year old children attending child care centres in the Illawarra. Child care centres involved were part of Illawarra Children's Services (ICS), Illawarra Area Child Care (IACC) and South Eastern Sydney Illawarra Area Health Service (SESIAHS).

### **Time Frame**

February 2007 – September 2007

5 ½ hours per week

### **Aims**

- Increase structured physical activity in child care centres
- Improve child care workers' knowledge of gross motor skills
- Increase identification of children with poor gross motor skills

### **Expected Outcomes**

- Increased confidence of child care workers to provide gross motor activities
- Increased time spent in structured gross motor activities
- Improved gross motor skills of participating children

## **Description of Service Delivery Model**

The Kindarobics Project was comprised of:

### **1. Education of Child Care Workers**

A two-hour training session was provided for 2 – 3 nominated staff from each centre. These staff then passed their acquired knowledge on to other staff at their centres, supported by a resource folder.

Education focused on:

- current recommendations for daily physical activity for 3-5 year olds.
- the need for promotion of gross motor skills
- a structured exercise program (Kindarobics) focusing on balance, jumping or ball skills
- use of games to promote gross motor skills
- identifying and helping children with poor gross motor skills.

A total of 57 childcare staff from 22 centres across the Illawarra attended the training session. The staff involved were part of the ICS, IACC or SESIAHS organisations which also provided administrative support for this project.

\*Note: The term "gross motor skills" becomes fundamental movement skills once a child is at school.

## **2. Resource Package Provided to Participating Centres**

Each centre was provided with a resource package. This consisted of:

- Instructions for running the three Kindarobics programs of balance, jumping and ball skills.
- Parent handouts on helping their preschool child with learning to balance, jump, throw, kick and strike a ball.
- Parent handout on appropriate preschool shoes.
- Gross motor guidelines for preschool children
- Copy of the talk given during the training session
- Instructions for games to promote gross motor skills
- Brochure on physiotherapy service provided by Illawarra Child Development Centre (ICDC) for children with motor delay.

## **3. Instructions For Kindarobics Program**

Kindarobics uses music and an obstacle course to focus on balance, jumping or ball skills. Each program starts with movement to music and progresses to integrate similar movements through an obstacle course. For details on all 3 programs see Appendix 1 instruction sheet for each program contained descriptions of different levels of gross motor ability and verbal cues that could be used for each skill. Ideally the music session would be followed immediately by the obstacle course to provide the children with approximately 30 minutes of continuous exercise.

## **4. Follow up on Site Visit**

The centres were offered an on-site visit after the training session. This consisted of a run through of one of the programs (i.e. Balance, Jumping or Ball Skills) with the carers and their children. Eight centres received follow-up visits.

## **5. Survey**

The project was evaluated via three surveys (see Appendix 2).

- 1.** An evaluation form was completed by trainees immediately after the training session.
- 2.** A phone survey was conducted with six randomly selected child care centres before training and 3 months post training.
- 3.** A phone survey was conducted for each childcare centre 3 months post training.

These surveys provided information on actual use of the program and any perceived changes in carers' confidence and skills and the motor skills of their child participants.

## **Rationale**

- **Why Do We Need to Increase Preschool Physical Activity Levels?**

Today's increasing paediatric obesity levels call for promotion of physical activity among the paediatric population. Fifteen percent of NSW kindergarten students are overweight or obese (Booth et al, 2004). Critically, obesity is associated with poor health outcomes such as an increased risk of non-insulin dependent diabetes mellitus, cardiovascular disease and osteoarthritis. David and Christoffel (1994) found that addressing obesity in preschools is twice as effective as addressing obesity in school aged children. Further, increased physical activity has been shown to decrease body mass levels in school aged children (Mo-suwana et

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al, 1998). This points to a need for a program that increases preschool children's physical activity levels as an effective way to prevent or reduce obesity levels.

It is generally accepted that children today are less active and more sedentary than in the past. Boreham and Riddod (2001) state that children today expend approximately 600 calories per day less than they did 50 years ago. This is a significant decline in physical activity. Deal (1993) observed that 3-5 year olds are "largely sedentary" in day care and at home. Since Pate (2004) reported that the preschool the child attends is the largest predictor of a child's physical activity level, childcare centres can play an important role in reversing these trends of declining physical activity levels.

#### ▪ **Why Target Gross Motor Skills?**

Okley et al (2001) found that adolescents with good fundamental movement\* skills are more likely to be involved in organised sport and have increased physical activity levels. Therefore a physical activity program for preschool aged children should aim to enhance children's gross motor skills which will increase their physical activity levels as an adolescent. Participation in organized sport as a child is positively correlated with sporting involvement as an adult (Telama et al, 1997); therefore preschool intervention to improve motor skills can carry over to adult health. Improving fundamental movement skills has also been shown to increase physical activity enjoyment (Okley and Booth, 2000).

Gross motor skills also impact on a child's psychological status. Better fundamental movement skills are associated with higher levels of self esteem (Ulrich,1987), and children with poor motor skills have been found to have lower self-worth, higher levels of anxiety and decreased social support (Skinner and Piek, 2001).

Children in NSW need to improve their motor skills. Booth and Okley in 2005 found that mastery of fundamental motor skills in a random sample of Sydney primary school was "generally low" (Okley and Booth, 2005). Addressing and enhancing preschool motor skills will enhance school aged motor skills, resulting in increased involvement in sport, enjoyment of physical activity and increased self esteem and self worth.

#### ▪ **Why Provide Structured Gross Motor Skills Activities?**

Structured gross motor practice is the most effective way to enhance children's gross motor skills and fitness. It is generally accepted that gross motor skills are acquired through practice. This has been shown in Germany (Ketelhut et al, 2004) where a weekly exercise program improved motor skills in preschool aged children. Structured exercise ensures children practise at developmentally appropriate levels and allows carers to provide modelling and feedback to the child. Only providing "free-play", whilst very important, will often result in poorly skilled children avoiding gross motor activities. It has been found that children in childcare centres have limited experience in strike, kick and catch (Taggart and Keegan, 1997). Structured practise allows a broad experience of skills whilst providing carers with the opportunity to compare a child with his mentors and identify children with delayed motor development.

Structured practice can enhance a child's cardiovascular fitness. It is known that exercise for more than 20 minutes, 3-5 times per week at a moderate intensity improves fitness (American College of Sports Medicine). In 2002 The National Association for Sport and Physical Education (NASPE) recommended 60 minutes structured exercise per day for preschool aged children.

\*Note: The term "gross motor skills" becomes fundamental movement skills once a child is at school.

### ▪ **Why Target Preschool Aged Children?**

Targeting preschool aged children adheres to the concept of early intervention. Gross motor skills such as balance and ball skills learned at this time form the basis of school motor skills. Further, at this young age, children are not aware of their motor competence and are generally prepared to “give it a go”. Children that will try difficult skills in preschool will be self-conscious of their ability levels by primary school because accurate matching of actual and perceived competence increases with age. (Damon and Hart, 1982) They will then start to avoid participation in activities and that challenge and enhance gross motor skills.

### ▪ **Why Use the Childcare Setting Environment?**

Increasing numbers of Australian children attend child care. The Australian Bureau of Statistics reported in June 2005 that 67% of 3-4 year olds use childcare hence childcare setting provides an effective way to target this population. As children spend increasing hours in childcare they decrease the opportunity for physical activity in the home. Further, in 2004, Pate found that a child’s preschool was the greatest predictor of the amount of physical activity they engage in.

The childcare centre also comes with many advantages. Childcare workers are trained in child development and can provide appropriate feedback and motivation to exercising children as supported in 1997 by Taggart and Keagan who found that the presence of an adult increases the amount of time a child spends in a movement skill. In addition, exercising children can learn and be motivated by older or more skilled children who naturally become mentors within the group. The group dynamics also encourage participation in a fun activity. A structured program also gives childcare workers opportunities to compare a child’s motor abilities within their peer group and suggest a referral to physiotherapy if required.

This program was offered to all centres within ICS, IACC and SESIAHS. Gross motor skill difficulties have not been found to be confined to specific cultural, geographical or socioeconomic status. Therefore no specific childcare centres were targeted within these organisations.

### ▪ **Why Provide Training as Part of this Package?**

As part of the Kindarobics package, a two-hour training session was provided to interested childcare workers. Each childcare centre nominated two workers to attend the session.

Childcare workers report their limited confidence in promoting gross motor skills as a major barrier to enhancing physical activity in childcare (Temple and O’Connor, 2003). These same workers suggested “workshops and training” to help them promote physical activity. Due to the scope of the project it was decided to train only two workers per centre who would then pass on the knowledge to their colleagues.

Training childcare workers allows them to independently run the exercise program at a time that suits the centre. The alternative is to pay external providers to run the program. The cost of this can preclude involvement of less affluent children. Running the program themselves allows childcare workers the opportunity to observe the child’s gross motor skills and identify children who are struggling. This early identification can lead to early referrals to therapy and modification of the Kindarobics program to enhance the child’s skills.

## **Outcomes**

Outcomes of the Kindarobics training and package were assessed via surveys.

**\*Note: The term “gross motor skills” becomes fundamental movement skills once a child is at school.**

## **1. Increased confidence of child care workers to provide gross motor activities**

Training in preschool gross motor skills was provided to 57 childcare staff in 22 centres across the Illawarra. 97% of trainees reported a greater understanding of preschool gross motor skills immediately after the training session. All 6 childcare workers surveyed before and after training reported increased confidence in:

- knowledge of preschool gross motor skills
- identifying children with poor gross motor skills and
- promoting gross motor skills.

All staff interviewed 3 months post-training reported

- using the knowledge they gained from Kindarobics within their centre.

Staff comments from the surveys included:

- an increased confidence in knowledge of preschool gross motor skills
- increased awareness of what children can and can't do
- an increased awareness of children with poor gross motor skills attending their centre.

## **2. Increased time spent in structured physical activity**

An increase in structured physical activity was reported following Kindarobics. Staff that were surveyed prior to Kindarobics reported an average 2.5 hours daily spent in unstructured physical activity and minimal time spent in structured physical activity; maximum reported was 20 minutes in one centre. In the post-training survey structured activity had increased to an average of 30 minutes daily across all 6 centres.

All childcare workers across all centres reported using some part of the Kindarobics package to promote gross motor skills. 41% of carers used the music activity (duration 30 minutes) on a daily basis and 74% used it greater than twice a week. The obstacle course and games were also used by some centres. The obstacle course was used daily by 5 % of centres and greater than 2 times per week by 16% of centres. The games were used daily by 5% and greater than 2 times per week by 37% of centres. This is in addition to using the music part of the package.

## **3. Improved gross motor skills of participating children**

The gross motor ability of participating children was not formally assessed. Individual pre and post intervention assessments were too time-consuming for this project; however previous similar exercise programs have shown improvements in gross motor skills (Ketelhut et al, 2004). When questioned, all childcare workers reported improved gross motor skill competence in all children involved, specifically:

- improved balance
- improved confidence in participating in gross motor activities
- increased participation in gross motor activities
- one childcare worker reported increased alertness in children following the exercise program.

## **4. Barriers to structured physical activity programs in the childcare setting**

As part of the follow up survey many barriers to structured physical activity were revealed. Temple and O'Connor had previously explored these barriers in 2003.

The childcare workers in this project identified many barriers to the Kindarobics program

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similar to the above study. Environmental and time constraints were the two barriers that were most frequently identified. Specifically, these were:

- inadequate size of the yard
- lack of room in cold or wet weather
- need for indoor space
- babies and older children using the same outdoor space. Structured activities were safer and easier when babies and pre-schoolers had defined, separated areas
- time and staff ratios -major barrier identified by all workers especially setting up equipment for the obstacle course.

One worker suggested the need to look at programming the time for Kindarobics. This would help with efficiency and co-ordination of staff. However looking at programming highlights another issue mentioned by some childcare workers. Activities in the centre are often focused on children's free choice. For example, the music component of Kindarobics was popular with the children which lead to its frequent use as children requested the CD.

One childcare worker identified enthusiasm of the staff member as an influence on the use of the program. This was observed on centre visits. Enthusiasm is important to overcome the barriers discussed above. Importantly, enthusiastic staff that actively participate will increase the participation of the children.

### **5. Children's participation in the program**

When questioned, 28% of staff reported all children participated in the Kindarobics program and the rest reported only 1-2 children not joining in. Two of these centres also commented that participation rates increased over time. These participation rates are encouraging as children are only verbally encouraged to join in and there are no consequences of they do not participate. During observations at the centres, children appeared to enjoy the program. They were generally enthusiastic during the session and often continued with the obstacle course after the allotted time.

## **Discussion**

The Kindarobics project allowed for education of a large number of child care workers in gross motor skills. The response to this education was very encouraging with 22 out of 25 centres accepting the offer of education and gross motor package. This included two centres from the Shoalhaven area. The Kindarobics project resulted in an increase to 30 minutes a day of time spent in daily structured physical activity. This is 50% of the time recommended in 2002 by The National Association for Sport and Physical Education (NASPE). Achieving the recommended daily 60 minutes is very difficult.

This project highlighted some of the barriers to structured physical activity in the childcare environment. The primary barriers were environmental and time constraints. These barriers need to be addressed to increase structured physical activity levels within the childcare setting. Providing more time for set up and running of structured activities is difficult to address without increasing funding levels for more staff. Reviewing centre programming may assist staff to find some available time.

Childcare environments can be adapted to improve physical activity but the most efficient way to address this is in the planning and design of centres. In the future, centre design needs to accommodate separate outdoor spaces for babies and pre-school aged children. Outdoor space needs to be shaded and large enough to provide room for obstacle courses and gross motor games. It is encouraging that the majority of centres have these provisions. Ideally an indoor space should be available for gross motor activities during inclement weather. This is rarely available.

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Another interesting factor is the concept of free choice where the children are encouraged to choose their own activities. This has many inherent benefits for a child's play. Unfortunately children with poor gross motor skills are not likely to choose gross motor play over other play activities. They are also not likely to join in challenging gross motor activities appropriate for their age level. This results in a lack of experience and practice of gross motor skills and a confounding of their gross motor limitations. A combination of free play activities with some structured activities in which children are strongly encouraged to join in with the group will provide a balance. This provides the necessary exposure to gross motor activities for all children and can assist with early detection of poor gross motor skills.

## **Conclusion**

The provision of education and a structured gross motor program (Kindarobics) was enthusiastically received by child care workers in the Illawarra. It resulted in a reported increase in childcare workers confidence in gross motor skills knowledge, increased time spent in structured physical activity and a reported improvement in children's gross motor abilities. The project did not achieve the recommendation of 60 minutes of structured physical activity per day due to the barriers of time and environmental constraints. To meet this recommendation more funding, a review of programming within centres and consideration of physical activity in the design of child care centres needs to be investigated.

## Acknowledgements

I would like to express my thanks to the following:

- Families NSW (Illawarra Area) for funding of the project and Jenny Claridge for her ongoing support.
- Kathryn Barker (IACC) and Kathryn Cowley (ICS) for their suggestions and for their help in organising the training sessions.
- The staff and children of Illawarra Children's Services, Illawarra Area Child Care and South Eastern Sydney and Illawarra Area Health Service child care centre for their involvement and enthusiasm:

| ICS                               | IACC   |
|-----------------------------------|--|
| Kenny Street Children's Centre    | Alunga Child Care Centre I                       |
| Warrawong Children's House        | Wallaroo Child Care Centre                       |
| Bulli Children's Centre           | Keiraview Child Care Centre                      |
| Wollongong City Preschool         | Smith Street Child Care Centre                   |
| Port Kembla Preschool             | Short Street Preschool & Occasional Care Centre  |
| Koonawarra Children's Centre      | Hospital Hill Preschool & Occasional Care Centre |
| Stewart Street Children's House   | Warilla Preschool & Occasional Care Centre       |
| Cobblers Hill Children's Centre   | Sanctuary Point Children's Centre                |
| Dapto Children's Centre           | Clipper Road Children's Centre                   |
| Barrack Heights Children's Centre | <b>SESIAHS</b>                                   |
| Kiama Downs Children's Centre     | Hillview Child Care Centre                       |
| Helensburgh Community Preschool   |  |

- Finally, Julie Merryful, Speech Pathologist, Illawarra Child Development Centre for her help on the name "Kindarobics".

## References

- Australian Bureau of Statistics 4402.0 - Child Care, Australia, Jun 2005 (Reissue)
- Booth M, E Demey-Wilson, L Hardy, A Okley, S Hodgson, R Wilkenfeld. (2004). NSW Schools Physical Activity and Nutrition Survey. Summary Report
- Boreham C. and Riddoch C. (2001) The physical activity, fitness and health of children. *Journal of Sports Science 19 (12): 288-301.*
- Damon W. and Hart D. (1982) The development of self- understanding from infancy through adolescence. *Child Development 53:841-864.*
- David K. and Christoffel K. (1994) Obesity in preschool and school-aged children. Treat early and often may be best. *Archives of Paediatric Adolescent Medicine 12: 1257-1261.*
- Deal T.B. (1993) The pre-school mover: a comparison between naturally occurring and program-directed physical activity patterns. *Early child Development and Care 96: 65-80.*
- Ketelhut R., Ketelhut K., Mohasseb I., Scheffler C. (2004) Regular exercise improves cardiovascular risk and motor development in preschool aged children. *Journal of Hypertension 22 (S11): 780*
- Mo-suwana L., Pongrapai S., Junjana C. and Puetpaiboon A. (1998) Effects of a controlled trial of school-based exercise program on the obesity indexes of pre-school children. *American Journal of Nutrition 68: 1006-1011.*
- National Association for Sport and Physical Education (2002). *Active Start: A Statement of physical activity guidelines for children birth to five years.* Reston V.A. (author).
- Okley A.D. and Booth M.L. (2000) Relationship of enjoyment of physical activity and preferred activities to fundamental movement skills in young children. *International Journal of Behavioural Medicine 7:S151*
- Okley A.D. and Booth M. (2005) Mastery of fundamental movement skills among children in NSE: prevalence and demographic distribution. *Journal of Science and Medicine in Sport 7 (3): 358-372*
- Okley A.D., Booth M.L. and Patterson J.W. (2001) Relationship of physical activity to fundamental movement skills among adolescents. *Medicine and science in sports and exercise 33 (11): 1899-1904.*
- Pate R.R. (2004) Physical activity among children attending pre-school. *Paediatrics 114 (5): 1258-1263*
- Skinner R.A. and Piek J.P. (2001) Psychosocial implications of poor motor co-ordination in children and adolescents. *Human Movement Science 20 (1-2): 73-94.*
- Taggart A. and Keegan L. (1997) Developing fundamental movement skills in outdoor settings. Three case studies of children playing. *Australian Council for Health, Physical Education and Recreation Inc. (ACHPER) Healthy Lifestyles Journal 44: 11-17.*

# APPENDIX 1

## Kindarobics - Gross Motor Program 1 - BALANCE



|                           | <i>Description</i>                         | <i>Time</i> | <i>Song</i>                                | <i>Skill Level</i>  | <i>Cues</i>  |
|---------------------------|--|-------------|--|---|--|
| <b>1. Introduction</b>    |  | 1 min       |  |   |  |
| <b>TURN CD ON</b>         |  |             |  |   |  |
| <b>2. Warm Up</b>         | General movement song                      | 3 mins      | <b>The Locomotion</b>                      |   |  |
| <b>3. Activity Songs</b>  | a) Squat to stand                          | 2 mins      | <b>Dingle, Dangle Scarecrow</b>            | <b>E</b> -Stand up by pushing with hands on floor<br><b>D</b> - Squat to stand , no hands<br><b>C</b> - Jump up from squat  |  |
|                           | b)Jump                                     | 2 mins      | <b>Jump If You Feel You Want To</b>        | <b>E</b> - squat, attempt to lift off floor<br><b>D</b> – Jump encouraging height<br><b>C</b> - jump forward, back or to the side                                 | <i>Demonstrate jump<br/>"swing arms"<br/>"Jump high"</i> |
|                           | c) Marching                                | 2 mins      | <b>The Ants GO marching</b>                | <b>E</b> - march<br><b>D</b> - heels down, stomp hard<br><b>C</b> - knees up higher to work on balance  | <i>"knees up"</i>  |
| <b>4. Activities</b>      | a) Hokey Pokey                             | 2 mins      | <b>Hokey Pokey</b>                         | <b>E</b> - Place foot forward on floor. May need help initially turning around<br><b>D</b> -Lift foot up to "shake".<br><b>C</b> - good control when foot in air. |  |
|                           | b)Balance- move body <b>but feet still</b> | 1 min       | <b>Heads and Shoulder's Knees and Toes</b> | <b>E</b> -feet together (as close as they can do)<br><b>D</b> - Step stance (like you have just stopped walking)<br><b>C</b> -Stand heel to toe on line           | <i>Feet still</i>  |
|                           | c)Stand on one foot- <u>hands on hips</u>  | 1 min       | <b>Standing on one leg</b>                 | <b>E</b> - try to lift foot up<br><b>D</b> -hold foot up<br><b>C</b> - can you balance with your eyes closed?   | <i>Don't wobble<br/>Hands on hips</i>                    |
| <b>TURN CD OFF</b>        |  |             |  |   |  |
|                           | c) Balance bean bag on one foot            | 1 min       |  | <b>E</b> -lift up one foot and touch bean bag<br><b>D</b> - place bean bag on foot, Try and lift foot up<br><b>C</b> - Balance bean bag on elevated foot          |  |
| <b>5. Obstacle course</b> |  | 8 mins      | See over                                   |   |  |
| <b>TURN CD ON</b>         |  |             |  |   |  |
| <b>6. Cool down</b>       |  | 2 min       | <b>Fa La Nana</b>                          |   |  |
| <b>7. Finishing song</b>  | Optional                                   | 1 min       |  |   |  |

E-emerging skill level

D-developing skill level

C- consolidating skill level

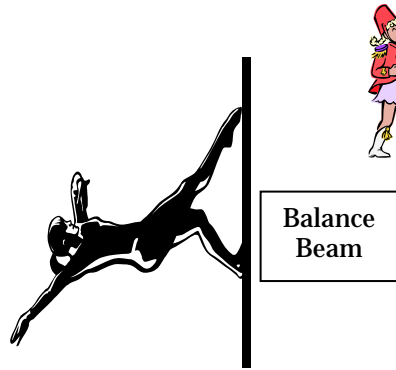
## **EQUIPMENT PROGRAM 1 - BALANCE**

- CD player
- PROG1 (Balance) CD
- Bean bag per child

### **OBSTACLE COURSE EQUIPMENT**

- Stepping stones
- Hula hoop or floor marker x 3
- Balance beam
- Dress-up pants
- Masking tape for curved or zigzag line
- Bean bag
- Laminated pictures:
  - Marching
  - Stork stand
  - Hopping
  - Walking backwards
  - Skipping

# OBSTACLE COURSE – BALANCE



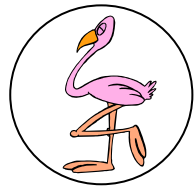
Marching



Balance bean bag on foot

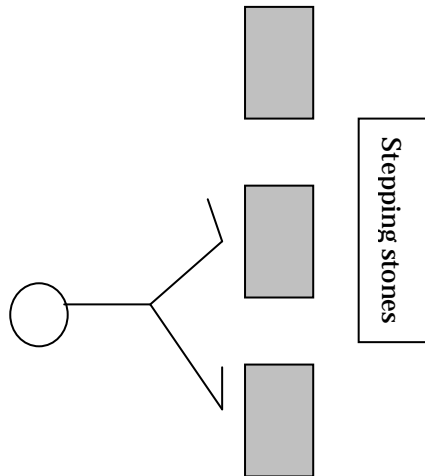
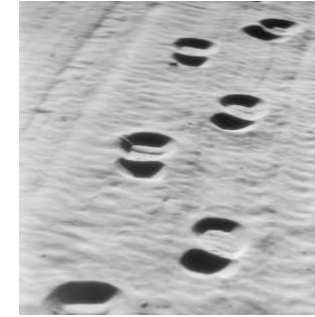


Hopping



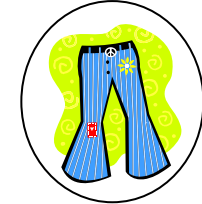
Stand on one foot

Walk thru sandpit



Stepping stones

Put dress up pants on and off. Stay standing.

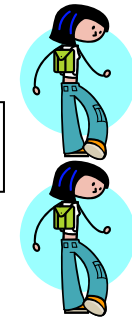


**START**

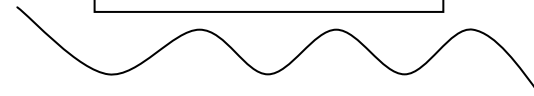


Skip to start

Walk backward



Walk heel-toe along line



## Kindarobics - Gross Motor Program 2 – JUMPING

|                           | <i>Description</i>  | <i>Time</i> | <i>Song (eg.)</i>  | <i>Skill Level</i>   | <i>Verbal Cues</i>  |
|---------------------------|---|-------------|--|--|---|
| <b>1. Introduction</b>    |   | 1 min       |  |  |   |
| <b>TURN ON CD</b>         |   |             |  |  |   |
| <b>2. Warm Up</b>         | General movement song   | 3 mins      | <b>The Peppermint Twist</b>  |  | <i>Dance!</i>   |
| <b>3. Activity Songs</b>  | Frog jump   | 1 min       | <b>Mr Frog jumped out of His Pond</b>  | E-squat to stand. Attempt jump<br>D- Jump up from squat<br>C-Frog jump forward or sideways                 |   |
|                           | Crouching   | 2 mins      | <b>Heads and Shoulder's Knees and Toes</b>   | All-crouch right down. Bottom in.  |   |
|                           | Jumping   | 2 mins      | <b>Jump if You Feel You Want to</b>  | E- squat, attempt to lift off floor<br>D – Jump encouraging height<br>C- jump forward, back or to the side |   |
| <b>4. Activities</b>      | Hop   | 2 mins      | <b>Standing on One Leg</b>   | E-bend knees, tend to jump<br>D- stand on one foot, hop x1<br>C- hop on the spot                           | Demonstrate and encourage.<br><i>Stand on one foot first</i>        |
| <b>TURN OFF CD</b>        |   |             |  |  |   |
|                           | Jump over rope<br>Children in line.<br>Immature jumpers at one end. | 2 mins      | Carers hold rope out in front of children. Hold rope lower at end near immature jumpers. Start with rope just off ground. Children jump up and over rope. As children improve lift rope higher by 1cm. |  | Demonstrate.<br><i>Careful. Bend you knees<br/>Swing your arms.</i> |
|                           | Jump up<br>Jump up to grab bubbles                                  |             | Divide children into groups of ability (one gp/carer). Stand in line. Blow bubbles along line above children's head. Encourage <b>UP</b>   |  | <i>Bend you knees<br/>Swing your arms.<br/>Look up</i>              |
| <b>5. Obstacle course</b> |   | 8 mins      | See over   |  |   |
| <b>TURN ON CD</b>         |   |             |  |  |   |
| <b>6. Cool down</b>       |   | 2 mins      | <b>Teddy Bear</b>  |  |   |
| <b>7. Finishing song</b>  | Optional  | 1 min       |  |  |   |

E-emerging skill level

D-developing skill level

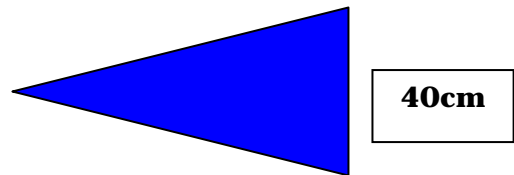
C- consolidating skill level

## **EQUIPMENT PROGRAM 2 - JUMPING**

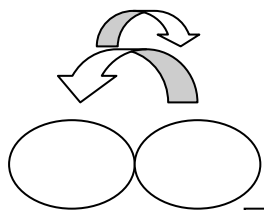
- CD player
- Prog 2 (jumping) CD
- Children may enjoy making a lion mask for “Leo the Lion”
- Rope or long skipping rope
- Bubbles (2 sets)

### **OBSTACLE COURSE EQUIPMENT**

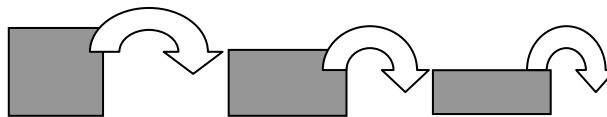
- Hula hoops or floor markers x4
- Blocks of varying heights or stepping stones (jump down)
- Balloon suspended on a string
- Large triangle of blue material (river)
- Laminated pictures:
  - Kangaroo
  - Frog
  - Hopping
  - Stork



# OBSTACLE COURSE PROGRAM 2 – JUMPING



Jump hoop to hoop



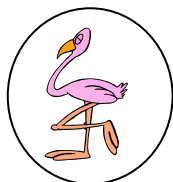
Jump down.  
Have a carer supervise.

Jump up to hit suspended balloon



Frog jumps

Jump for distance into SANDPIT



Stand on one foot

Try to hop



Kangaroo jumps



Jump over river. Use blue triangle.



**START**

**STOP**

Run



\*Note: The term “gross motor skills” becomes fundamental movement skills once a child is at school.

## Kindarobics - Gross Motor Program 3 - BALL SKILLS

|                           | <i>Description</i>  | <i>Time</i> | <i>Song</i>  | <i>Skill level</i> | <i>Verbal Cues</i>  |
|---------------------------|---|-------------|--|--------------------|---|
| <b>1. Introduction</b>    |   | 1 min       |  |                    |   |
| <b>TURN CD ON</b>         |   |             |  |                    |   |
| <b>2. Warm Up</b>         | General movement song   | 3 mins      |  |                    |   |
| <b>TURN CD OFF</b>        |   |             |  |                    |   |
| <b>3. Activity Songs</b>  | 1. Balance ball on flat palm of hand                                |             |  |                    | <i>Watch the ball</i>   |
|                           | 2. What colour did I throw?   |             | Children stand in circle. Carer in middle. Carer choses bean bag and tosses in air. Children call out colour of bean bag.  |                    | <i>Watch the bean bag</i>   |
|                           | 3. Throw and catch to self. Hold bean bag in one hand. Throw it up. |             | <b>E-</b> Throw bean bag so that it just leaves the hand<br><b>D-</b> Throw higher and catch<br><b>C-</b> Throw bean bag up, clap and catch. How many claps can you do?  |                    | <i>Watch the bean bag</i><br><i>Cup hands( to catch ball)</i><br><i>Pinkies touching (hands together)</i> |
| <b>4. Activities</b>      | 1. Throw bean bag into washing basket.                              |             | <i>Place washing basket in centre of circle. Children in tight circle close to basket. If bag goes into basket, retrieve bag and take one step back. Repeat. Do not take step back if you miss.</i>  |                    | <i>Stand like a crab (Stand side on)</i><br><i>Watch the basket</i>                                       |
|                           | 2. Throw bean bag over rope.  |             | Children in a line. Immature throwers at one end. Carers hold rope almost parallel to line of children. Carer near immature throwers stands closer to children than other carers. Children throw bean bag <u>over</u> rope. When all have thrown, crawl under rope and throw back over rope. |                    |   |
| <b>5. Obstacle course</b> |   | 8 mins      | See over   |                    |   |
| <b>TURN CD ON</b>         |   |             |  |                    |   |
| <b>6. Cool down</b>       |   | 2 mins      |  |                    |   |
| <b>7. Finishing song</b>  |   | 1 min       |  |                    |   |

**E-**emerging skill level

**D-**developing skill level

**C-** consolidating skill level

## **EQUIPMENT PROGRAM 3 - BALL SKILLS**

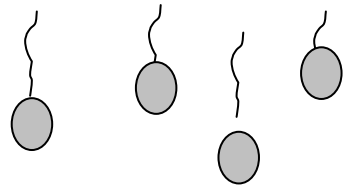
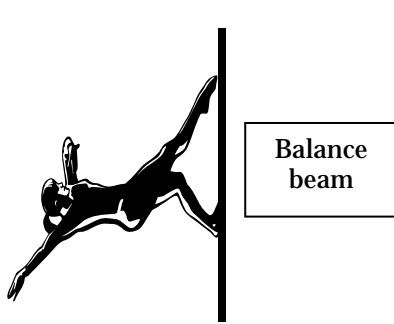
- CD player
- Prog 3 Ball skills CD
- Ball for each child in group. Can use variety of balls,
- Bean bag for each child
- Skipping rope
- **3 carers if possible**

### **OBSTACLE COURSE EQUIPMENT**

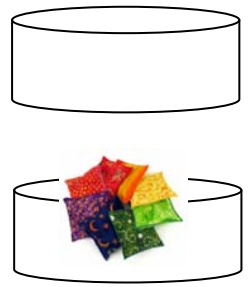
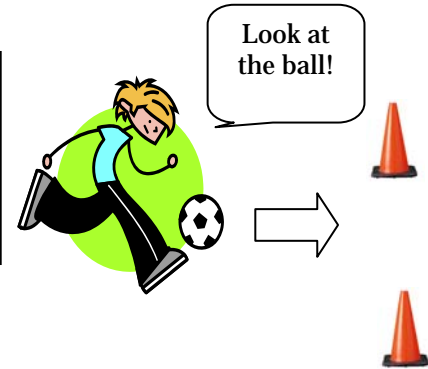
- Five balloons on string - if possible leave string up (hung from shade cloth structure?) and attach balloons to strings each day.
- Balance beam
- Washing basket x 2
- Bean bags x 2
- Witches hat x 2
- “Soccer ball”
- Masking tape to mark zigzag line
- Floor marker to mark where to kick from (or use masking tape)
- Laminated picture:
  - Ballerina
  - Run
  - Stop

**NOTE:** for this obstacle course you will need a carer to hold the balloon being struck at the beginning and a carer near the ball kick.

# Kindarobics - Gross Motor Program 3 - BALL SKILLS

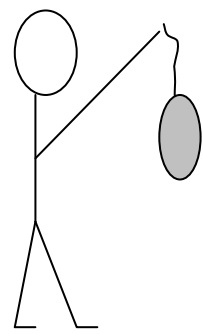


Child kicks ball through cones. Retrieves ball and places back on starting spot (marked with tape). **Will need carer supervision.**



Pick 2 bean bags out of washing basket. Throw one at a time into other basket. Walk to other basket. Throw bags back into 1st basket. (Stay standing at second basket)

Carer



Hit balloon with bat

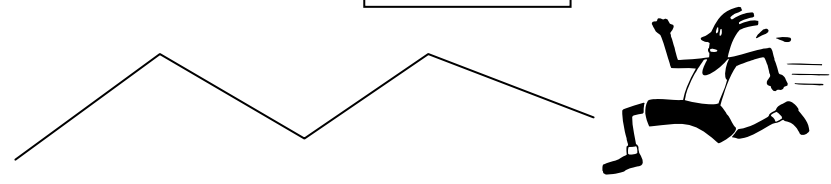
Walk on tip toes



Run on taped Zigzag line

**START**

**STOP**



## APPENDIX 2

### SURVEYS

#### Kindarobics Follow Up Phone survey (all centres)

1. Have you used the Kindarobics program since the education session? Yes or No.
  - a. If Yes
    - i. What parts of the program have you used? Music, obstacle course or games?
    - ii. How often do the children participate in the program?
    - iii. Do all children join in the session?
    - iv. Have you noticed any change in their motor abilities?
  - b. If No, what were some of the barriers to implementing the program?
2. Have you used any of the other resources in the folder e.g. Games, etc.?
3. Have you used any of the knowledge gained in the education session in your centre and in what ways?
4. Can you see this being implemented permanently into your programs for children?
5. Do you have any comments on the program and how it could be improved?

#### Kindarobics Project Phone Survey - Pre and Post Survey

|   |
|---|
| <p>Date:<br/>Centre:<br/>Name of CC worker:</p> |
|---|

1. Please rate your overall confidence in your knowledge of preschool gross motor skills on a scale of 1-10. 1= no confidence and 10= extremely confident.
2. Using the same scale, rate your confidence in identifying preschoolers with poor gross motor skills.
3. Using the same scale, rate your confidence in promoting a child's gross motor skills, for example, hopping.
4. Please rate the average gross motor ability of the children in your group. 1=poor and 10=excellent.
5. At your centre, how long do children spend each day in *structured physical* activity? "Structured physical activity" – a carer supervises and guides an activity to promote a certain gross motor skill.

## **Evaluation Form**

### **Promoting Gross Motor Skills in Childcare 2007**

**Please circle the appropriate response. Thankyou.**

**1. The information presented was clear and concise.**

Strongly  
Disagree

Disagree

Unsure

Agree

Strongly  
Agree

**2. I now have a greater understanding of preschool gross motor skills.**

Strongly  
Disagree

Disagree

Unsure

Agree

Strongly  
Agree

**3. I will use this information in my workplace.**

Strongly  
Disagree

Disagree

Unsure

Agree

Strongly  
Agree

**4. I would recommend this workshop to my colleagues.**

Strongly  
Disagree

Disagree

Unsure

Agree

Strongly  
Agree

**5. Structured gross motor activities are practised at our centre.**

Daily

2 times/week

Weekly

Rarely

Never

**6. I will try to incorporate the Kindarobics Program into our centre.**

Never

At a future date

Unsure

ASAP

**Comments:**