

## **DIVISION III (Grades 4-5)**

### **MONTH BY MONTH INSTRUCTIONAL SEQUENCE FOR THE MATHEMATICS PENTATHLON® GAMES**

(Linking the Games With Adventures in Problem Solving Book II  
and Investigation Exercises Book II)

#### **SEPTEMBER**

- STARS & BARS  
Adventures: Activities I and II - pp. 197-198 (Investigate the Stars & Bars Cards.) and Activity IV - p. 199 (One and Two Way Difference Chains)
- JUGGLE  
Adventures: Activity II - pp. 10-12 (Constructing Polyominoes) and Activity VI - pp. 14-15 (Juggle Board Spatial Cover Task)  
Adventures: (if time permits) Scarce Resources
- QUEEN'S & GUARDS  
Game: Teach rules and practice.

#### **OCTOBER**

- STARS & BARS  
Continue practice with one and two-way differences and introduce three and four-way differences. (Adventures: Activity VI - p. 201 is an enjoyable way to practice these skills.) Activity V - pp. 199-200 (What's the Difference?)
- JUGGLE  
Game: Teach rules and practice.
- QUEEN'S & GUARDS: Continue to practice.

#### **NOVEMBER**

- STARS & BARS  
Adventures: Activities XI and XII - pp. 207-209 (Progressive Lead-Ins Including One and Two-Way Scoring)
- JUGGLE  
Adventures: Activity XVIII - p. 39 (Polyomino Perimeter Relations)  
Continue to practice game.
- CONTIG 60  
Adventures: Activity II - pp. 115 and 117 (Cover Up II)  
Game: Teach rules with only "five-in-a-row" way to win.
- QUEEN'S & GUARDS: Continue to practice.

#### **DECEMBER**

- STARS & BARS  
Adventures: Activities XIII and XIV - pp. 208, 210 and 211-212 (Progressive Lead-Ins Including Three and Four Way Scoring)  
Investigations: Select appropriate pages 3-14.

- **JUGGLE**  
Investigations: pp. 3-4 (Juggle Pents and Tetra Pents - Investigate the maximum number of pentominoes that can be placed on 9 x 9 grid without vertices or edges touching.)
- **CONTIG 60**  
Game: Teach second way to win by scoring and continue to practice.
- **QUEEN'S & GUARDS** - Continue to practice.

## **JANUARY**

- **STARS & BARS**  
Game: Teach rules and practice game using only the central-playing area of gameboard.  
Investigations: pp. 15-17
- **CONTIG 60**  
Adventures: Activity X - pp. 130 and 132 (Calculator Challenge)  
Investigations: Select appropriate pages 3-12.
- **FAB-A-DIFFY**  
Adventures: Activity V, VI, VIII, and IX - pp. 168-171 (Investigate bars and equivalence.)  
Investigations: Select appropriate pages 3-9.
- **JUGGLE and QUEEN'S & GUARDS**: Continue to practice.

## **FEBRUARY**

- **STARS & BARS**  
Game: Teach and practice all rules including scoring in outer rectangle of gameboard.
- **FAB-A-DIFFY**  
Adventures: Activity X - pp. 171-172 and Activities I and II - pp. 175-177 (Frac Fact)  
Game: Teach rules and practice.  
Investigations: pp. 10-12 (FAB) and pp. 3-9 (Frac Fact)
- Teach tournament rules to Juggle, Queen's & Guards, and Contig 60.

## **MARCH AND APRIL**

- Teach tournament rules to Stars & Bars and FAB-A-DIFFY.
- Continue to practice all 5 games using tournament rules.
- **STARS & BARS**  
Investigations: pp. 18-20
- **CONTIG 60**  
Adventures: Activity XI - pp. 132 and 134-135 (Contig 60 Worksheets)  
Investigations: pp. 13-15
- **QUEEN'S & GUARDS**  
Investigations: pp. 3-10

## **IF TIME PERMITS:**

Refer to Adventures in Problem Solving Book II and Investigation Exercises Book II for many other additional activities that will enrich students' mathematical problem-solving skills.