GYMNASTIC AND COMPUTATION THINKING

HOW TO TEACH GYMNASTICS SKILLS IN #PHYSED

THEPESPESPECIALIST.COM
CREATE A ROUTINE

• Review Travels, Balances & Jumping and Landing
• Have students come up with a Sequence or Routine combining all the elements they have learned
• Perform the Sequence after giving students time to practice
競技體操-自由體操

- 開始動作及結尾動作
- 平衡類-燕式平衡、側平衡
- 跳類-直跳、蹲腿跳、分腿跳、貓跳
- 轉體類-180度、360度、720度
- 滾翻-前滾翻、後滾翻、側滾翻
- 難度動作-側手翻、前手翻、後軟翻
- 舞蹈-自由動作
Create Your Own Gymnastics Routine

Directions: Write or draw one of the following elements in one of the boxes:

- A clean beginning and end (Stretch)
- 4 Different Traves (Any type of movement across the mat)
- 2 Balances (Must have stilts for 5 seconds)
- 1 Jumping Trick (no flips please)

Remember: Be safe. Stay in control. Do not crash on the mat. Be Creative!
Directions: Write or draw each of the following elements in one of the boxes.

- A clear beginning and end (Stretch)
- Different Travels (Any type of movement across the mat)
- 2 Balances (Must have stillness for 5 seconds)
- 1 Jumping Trick (no 360s please)

REMEMBER: Be safe. Stay in control. Do not crash on the mats. Be Creative!

- Walk
- Spider-Man
- Stretch
- Jump split
- Walk
- Headstand
- Morgan
GYMNASTICS STATIONS

- Station Ideas *(setup examples)*
  - Rolling
  - Animal Travels
  - Jumping and Landing
  - Balancing Challenges
  - Partner Balances
  - Balance Beams
  - Cartwheels/Roundoffs
  - Rope Climb
  - Rope Swing
  - Rock Wall
  - Exercise Station
  - Rings or Bars if you have them
- Create a sequence
WHAT IS A PRE PERFORMANCE ROUTINE?

• A pre performance routine is defined as ‘sequence of task relevant thoughts and actions which an athletes engages in systematically prior to his or her performance of a specific sport skill’ (Moran 1996, p177). As this definition highlights there are three components to a pre performance routine: cognitions (thoughts), behaviours (actions) and task specific / systematic.

• This is employed prior to a skill, often used in closed self-paced skills (Singer, 2000; Cohn, 1990; Cotterill, 2010) i.e. gymnastic performance, basketball free throw shooting or golf putting. A closed skill is one performed in a stable and predicable environment with a clear defined beginning and end (Schmidt, 1991).
WHAT IS THE PURPOSE OF A PRE PERFORMANCE ROUTINE?

• The purpose of a pre performance routine is to provide you with:
  • The optimal mind-set to achieve the desire outcome
  • Assist the neuromuscular pathways
  • Assist in schema development or maintenance

Optimally a pre performance routine is a tool to enable you to achieve your best on a consistent basis.
WARM UPS – CODING GAMES

https://studio.code.org/s/sports/stage/1/puzzle/1
WARM UPS – GYMNASTICS SKILLS

課堂安排:

1. 先讓學生重溫一些簡單的體操動作，如頭手倒立、前滾翻、後滾翻等。

2. 讓學生完成工作紙一，更深入了解體育文憑課程內的活動平面的分析，如矢狀切面、額狀切面、橫狀切面、矢狀軸、橫軸和縱軸。

3. 播放短片，讓學生了解何謂編程。

4. 進入活動三，體育編程活動。
题目：动作分析与体育编码（Unplugged Coding）结合
工作纸

利用以下的动作平面分类名词，完成表格。
（跳跃、侧跳、后跳、前跳、倒立、手倒立、横跳和翻滚）

<table>
<thead>
<tr>
<th>动作</th>
<th>所需动作</th>
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<tbody>
<tr>
<td>后背手立</td>
<td>Shoulder stand</td>
</tr>
<tr>
<td>360 度全翻</td>
<td>Full Turn</td>
</tr>
<tr>
<td>后空翻</td>
<td>Forward Roll</td>
</tr>
<tr>
<td>单手翻</td>
<td>Cartwheel</td>
</tr>
<tr>
<td>倒立手立</td>
<td>Headstand</td>
</tr>
<tr>
<td>手倒立</td>
<td>Handstand</td>
</tr>
<tr>
<td>吊式平衡</td>
<td>Swallow balance</td>
</tr>
<tr>
<td>后滚翻</td>
<td>Backward Roll</td>
</tr>
</tbody>
</table>
一: 編寫你獨有的程式。

1. 先貼上你們的點名貼紙，然後在對應貼紙上記下START點。
2. 在貼點START與起點之间設計一條路徑，其中必須避開已由其它
   小組設定的點(即屏幕上的點標位置)。
3. 在方格紙上記下已被安排的點的位置。
4. 到站後，必須在書上完成一個書寫動作。
5. 過程中必須與組員一起設計路徑，而到最後階段，則必須分工，一個
   同學指揮機械人(接受指令)，另一同學必須以圖示方式指令機械人完成整個
   路徑，動作的時間必須等於30秒。

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第一組開始的位置  第二組開始的位置
### PLAN YOUR OWN ROUTINES

<table>
<thead>
<tr>
<th>No.</th>
<th>Routine</th>
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<tbody>
<tr>
<td>1</td>
<td>Forward</td>
</tr>
<tr>
<td>2</td>
<td>Turn-Left</td>
</tr>
<tr>
<td>3</td>
<td>Backward</td>
</tr>
<tr>
<td>4</td>
<td>Turn-Right</td>
</tr>
<tr>
<td>5</td>
<td>HOME</td>
</tr>
<tr>
<td>6</td>
<td>START</td>
</tr>
<tr>
<td>7</td>
<td>1 mark Shoulder-stand</td>
</tr>
<tr>
<td>8</td>
<td>2 marks Full-Turn</td>
</tr>
<tr>
<td>9</td>
<td>2 marks Forward-Roll</td>
</tr>
<tr>
<td>10</td>
<td>3 marks Cartwheel</td>
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<tr>
<td>11</td>
<td>3 marks Headstand</td>
</tr>
<tr>
<td>12</td>
<td>2 marks Handstand</td>
</tr>
<tr>
<td>13</td>
<td>2 marks Swallow-balance</td>
</tr>
<tr>
<td>14</td>
<td>2 Backward-Roll</td>
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<tr>
<td>15</td>
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<td>16</td>
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### Activities:

- Activity 1: Choose your choreography.

### Instructions:

- Complete your choreography.

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**Note:** The table and diagram illustrate various movement routines that can be planned for an exercise or choreography.
PLAN YOUR OWN ROUTINES
(STUDENTS ARE THE PHYSICAL ROBOT !)

- **Active engagement**
- **Computation thinking - sequence**
- **Schema construction**
REFLECTIONS: THE ADOPTION OF CODING ELEMENTS TO PE

• Increase the opportunity of students practising gymnastics
• Motivation
• Creativity
• Fun
• .......