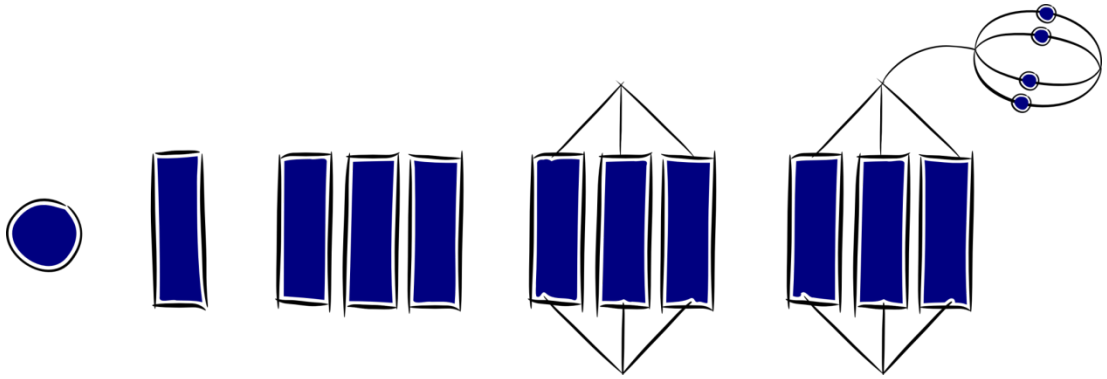
SOLO Taxonomy, Scratch and Angles in Geometry

Pam Hook
www.pamhook.com



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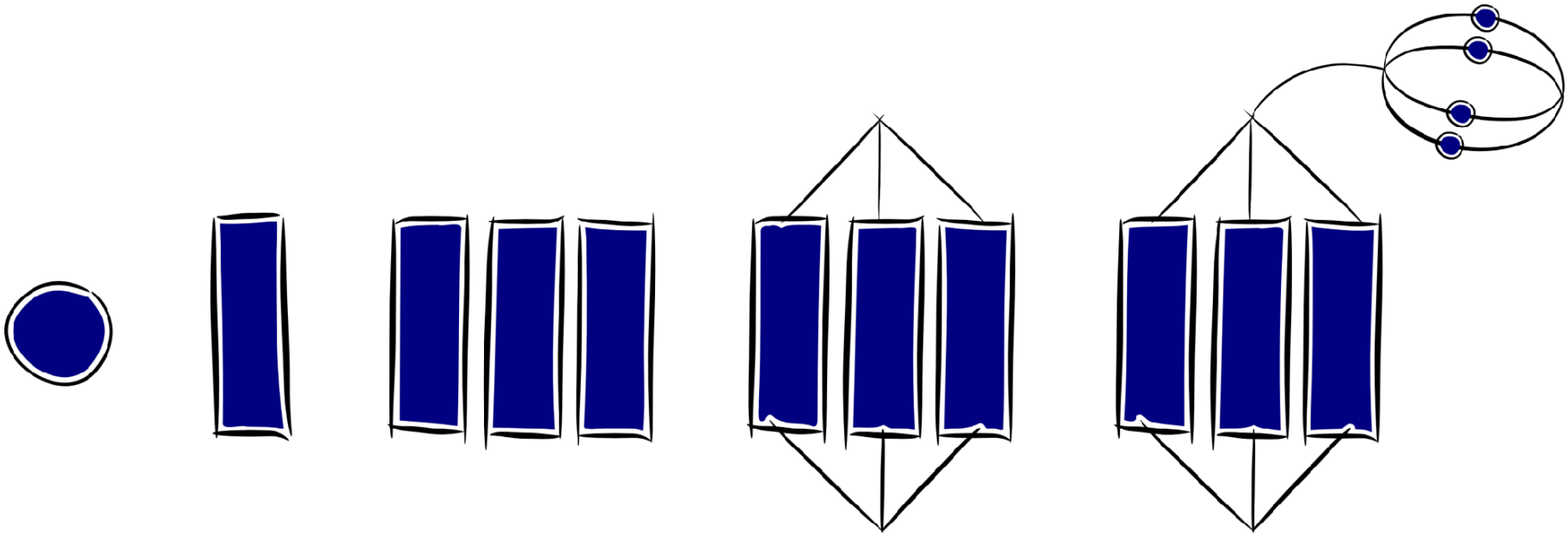
SOLO Taxonomy - Biggs and Collis 1982

The **S**tructure of **O**bserved **L**earning **O**utcomes



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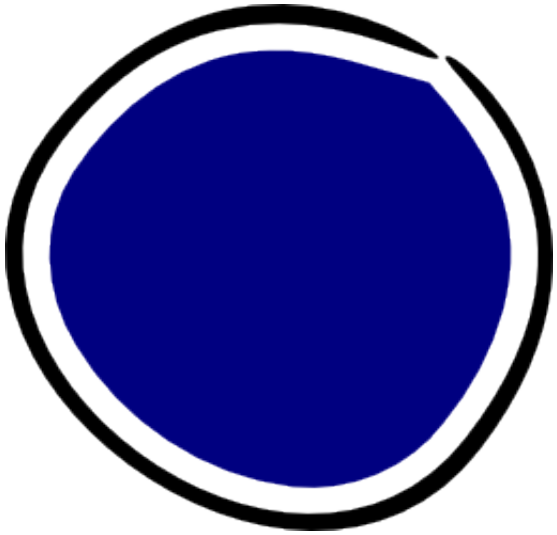
Biggs, J.B., and Collis, K.F. (1982) Evaluating the Quality of Learning-the SOLO Taxonomy (1st ed) New York: Academic Press.

SOLO PRESTRUCTURAL:

Learning outcomes show unconnected information, no organisation.



"I need help to identify clockwise and anticlockwise turns ..."

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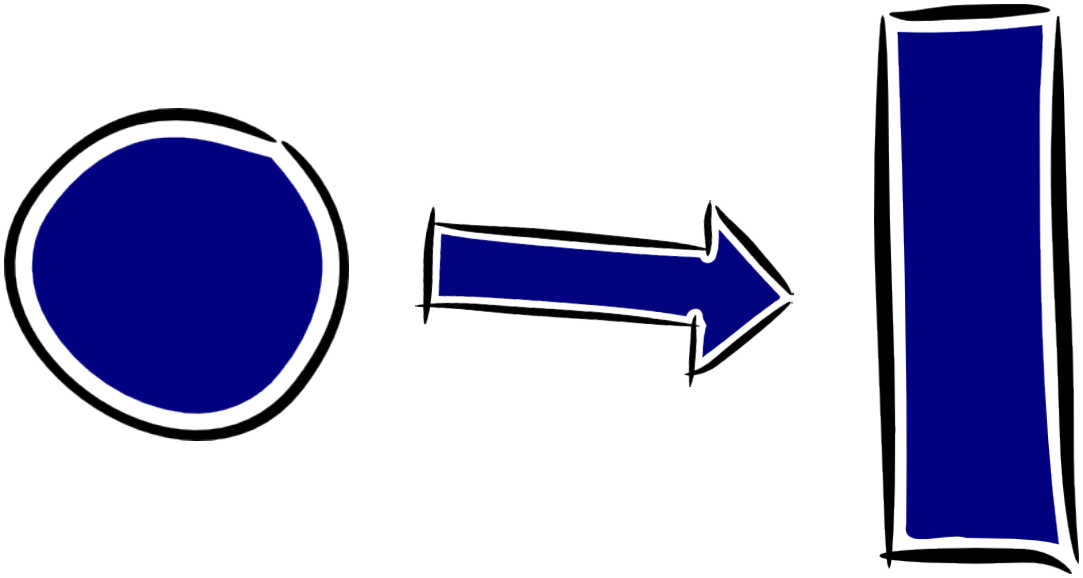
Where to next ...



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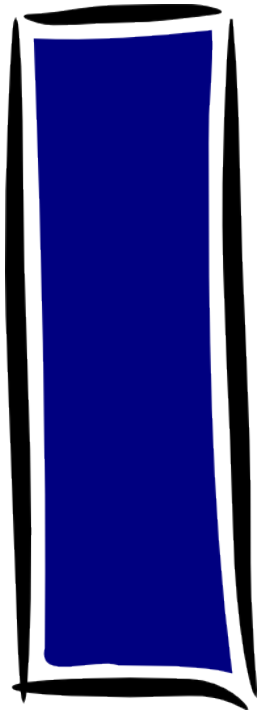
SOLO UNISTRUCTURAL:

Learning outcomes show simple connections but importance not noted.



"**I can identify** clockwise and anticlockwise turns and a simple angle (e.g. right angle)"

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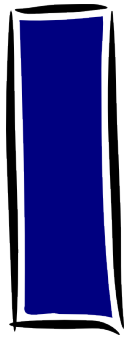

I can create an animation in Scratch where the avatar turns clockwise and anticlockwise and has a motion path that makes a right angle turn.

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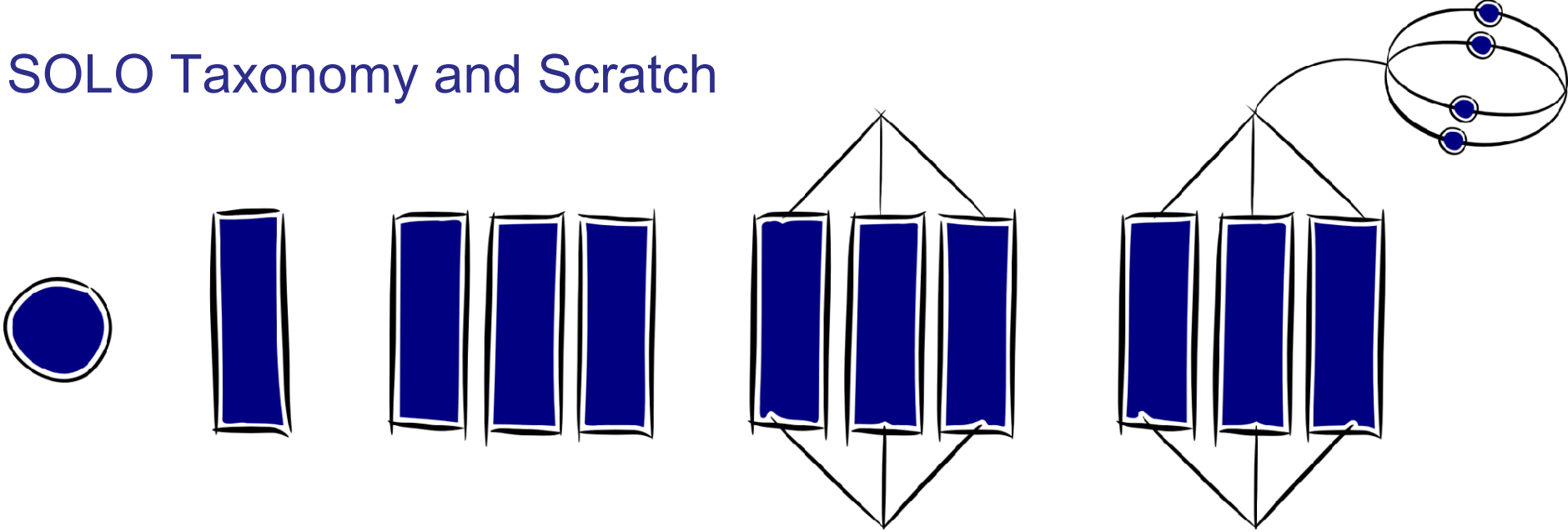
SOLO Taxonomy and Scratch



I can identify the clockwise and anticlockwise turns and the right angle used in the Scratch animation motion path and describe the movement of the avatar in terms of rotation..			

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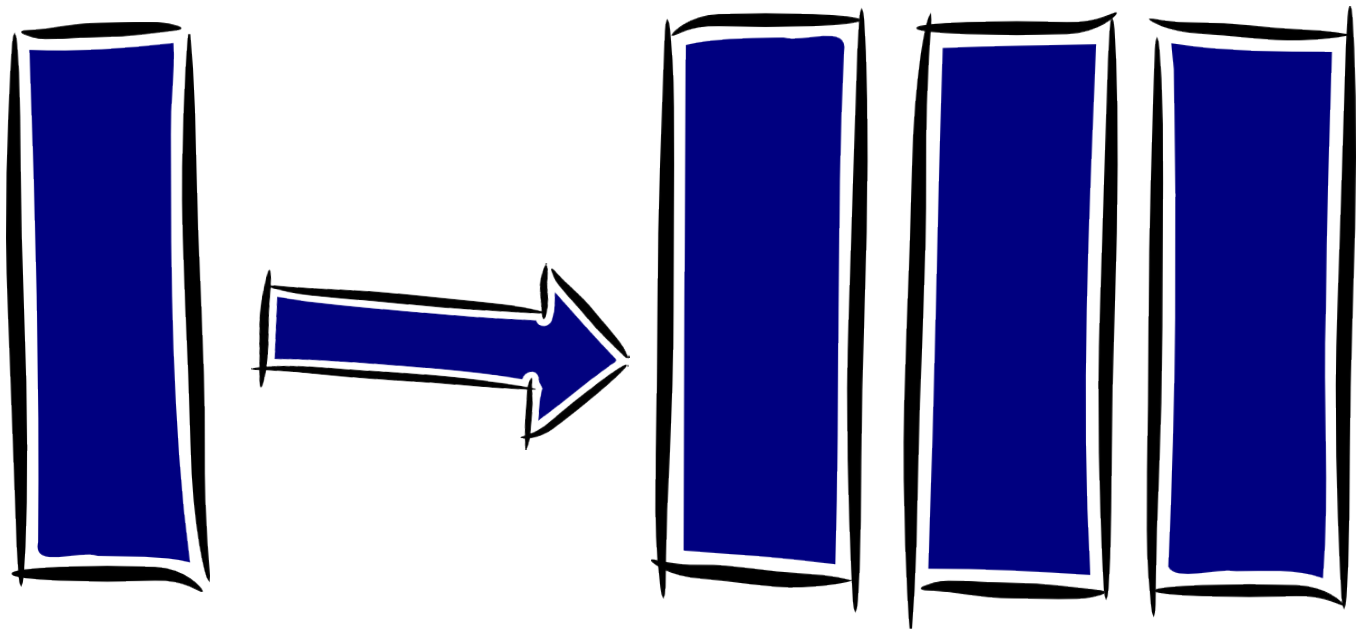
Where to next ...



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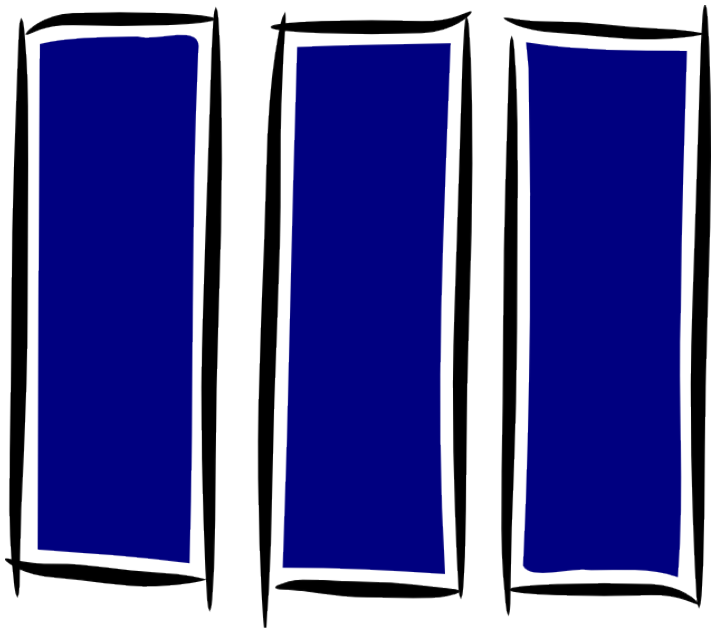
SOLO MULTISTRUCTURAL:

Learning outcomes show connections are made, but significance to overall meaning is missing.



"**I can identify** clockwise and anticlockwise turns and angles (e. g right angle**, acute, obtuse, straight angle, reflex angle, full turn – or 90, 180, 30, 45, 60)**

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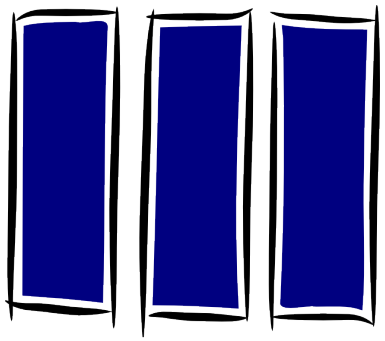

I can create an animation in Scratch where the avatar turns clockwise and anticlockwise and has a motion path that makes a right angle turn, **acute, obtuse, straight angle, reflex angle, and full turn – or 90, 180, 30, 45, 60.**

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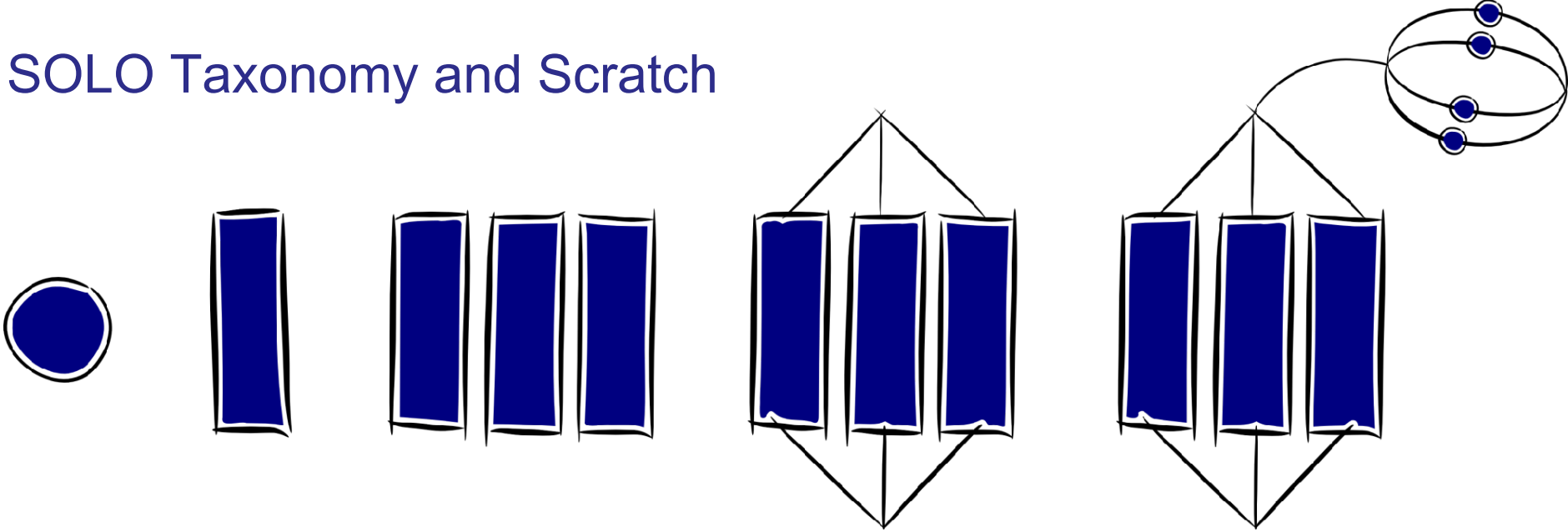
SOLO Taxonomy and Scratch



I can identify the clockwise and anticlockwise turns and the right angle used in the Scratch animation motion path and describe the movement of the avatar in terms of rotation..	**I can identify** the angles used in the Scratch animation path and describe the movement of the avatar in terms of reflection, rotation and translation.		

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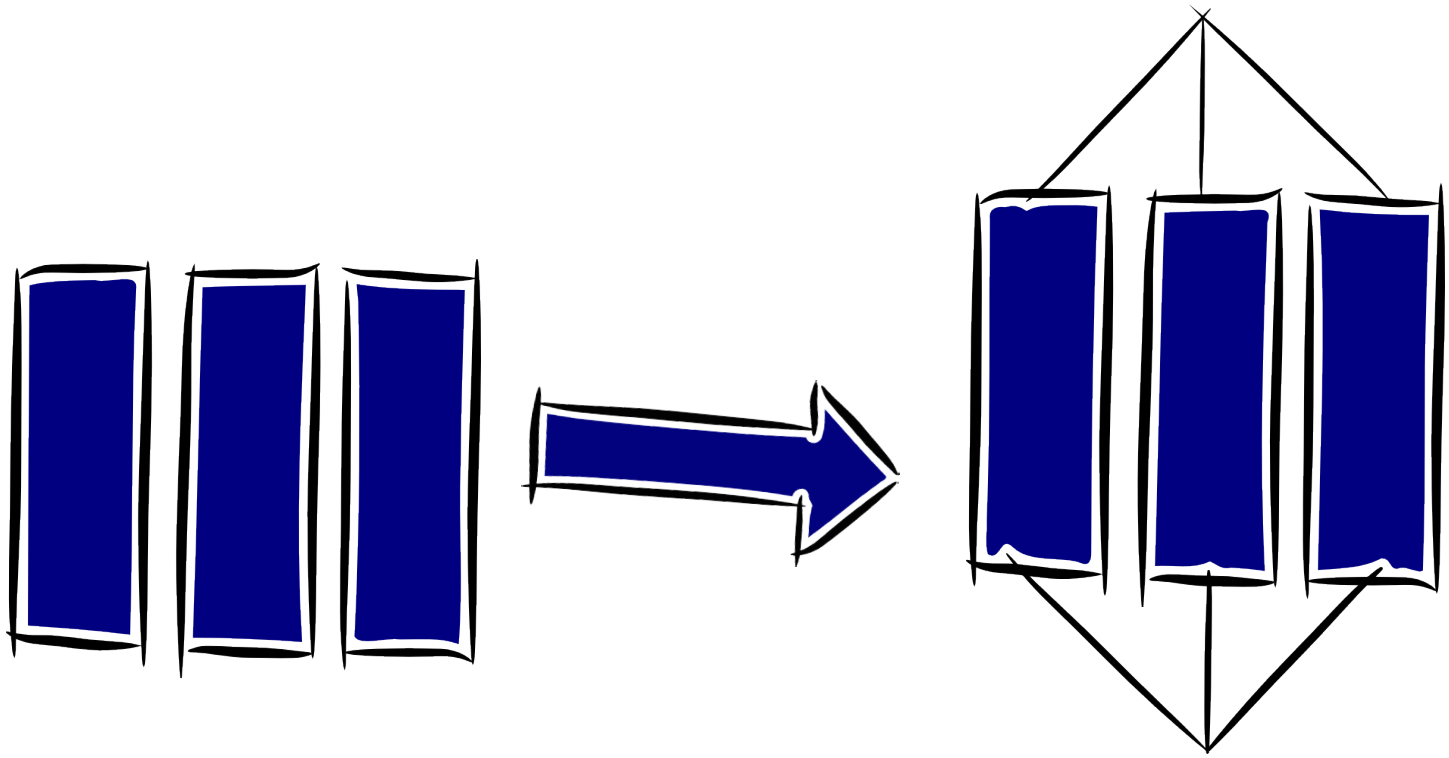
Where to next ...



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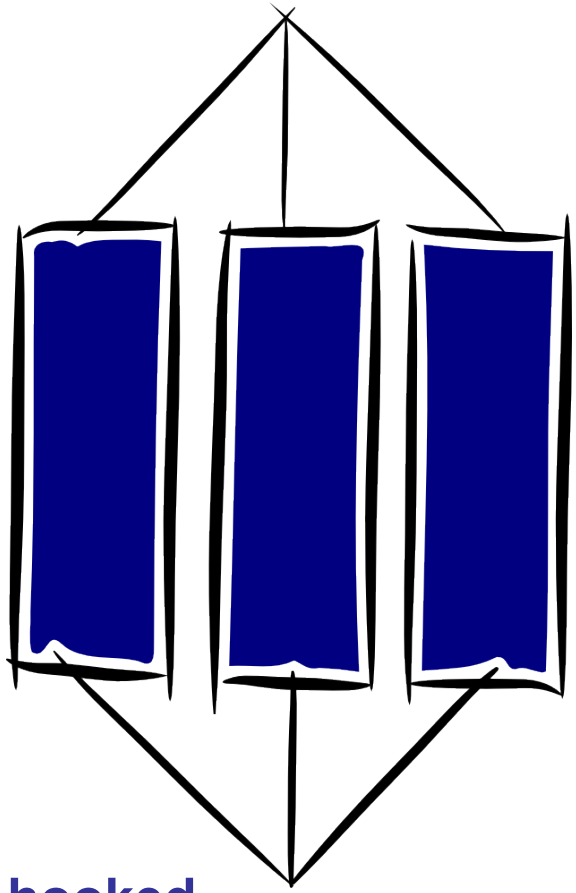
SOLO RELATIONAL:

Learning outcomes show full connections made, and synthesis of parts to the overall meaning



"I can identify clockwise and anticlockwise turns and simple angles (e.g. right angle, acute, obtuse, straight angle, reflex angle, full turn – or 90, 180, 30, 45, 60) ***AND measure, order and compare angles with for example right angles to create reflection, rotation and translation.."***

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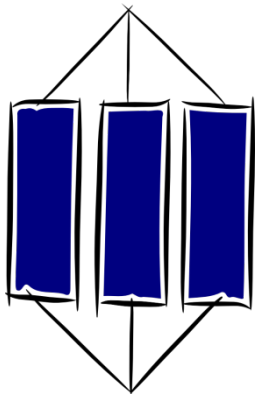

I can create an animation in Scratch where the avatar turns clockwise and anticlockwise and has a motion path that makes a right angle turn, acute, obtuse, straight angle, reflex angle, and full turn – or 90, 180, 30, 45, 60. **AND measure, order and or compare angles with for example right angles to create motion paths for reflection, rotation and translation**.

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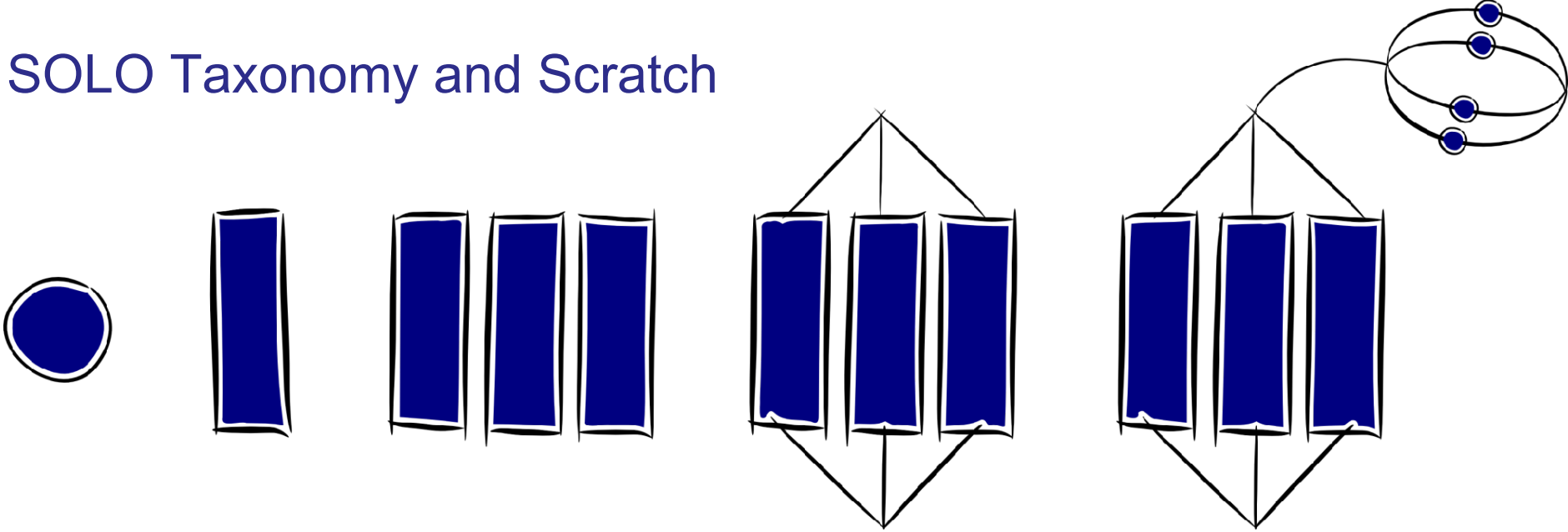
SOLO Taxonomy and Scratch



I can identify the clockwise and anticlockwise turns and the right angle used in the Scratch animation motion path and describe the movement of the avatar in terms of rotation..	**I can identify** the angles used in the Scratch animation path and describe the movement of the avatar in terms of reflection, rotation and translation.	**I can explain** using the appropriate language of angle names, degrees, measurement, order and comparison why the angles were chosen to create the Scratch animation effect used for reflection, rotation and translation.	

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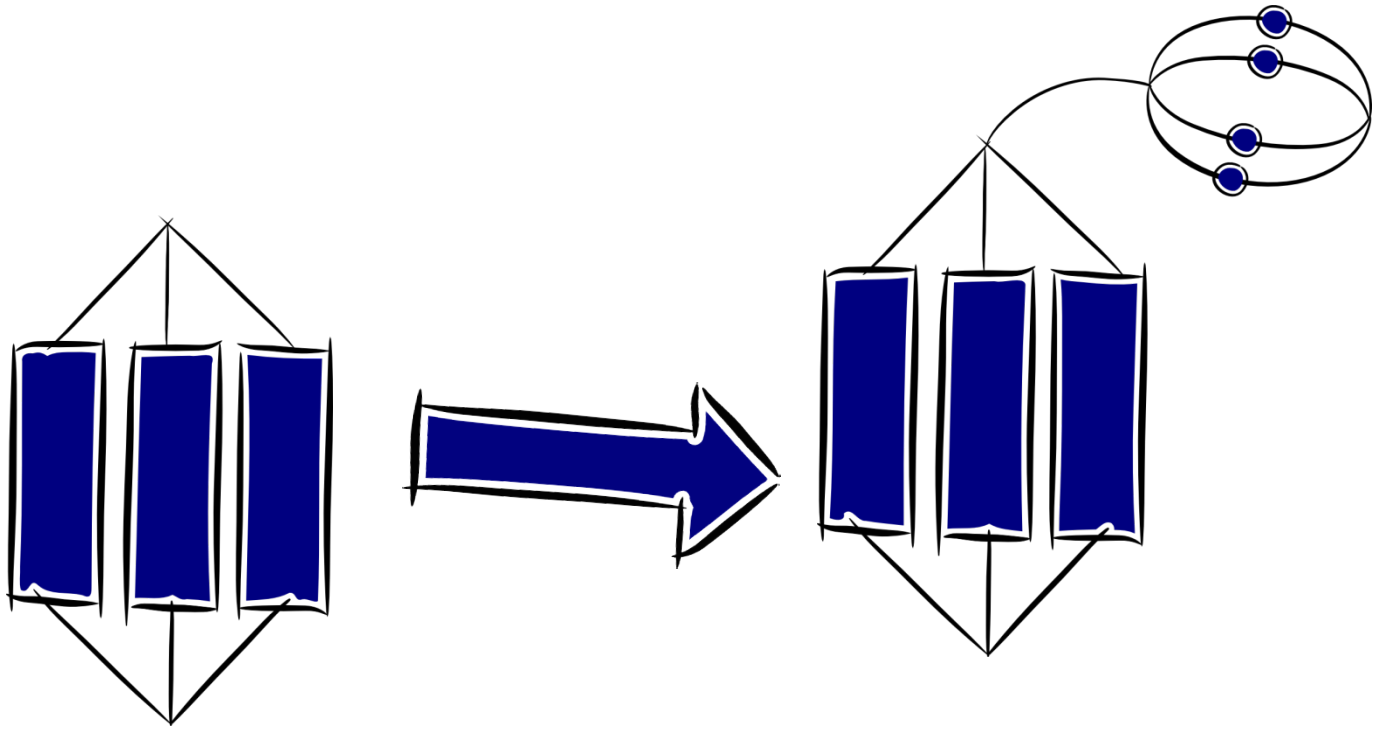
Where to next:



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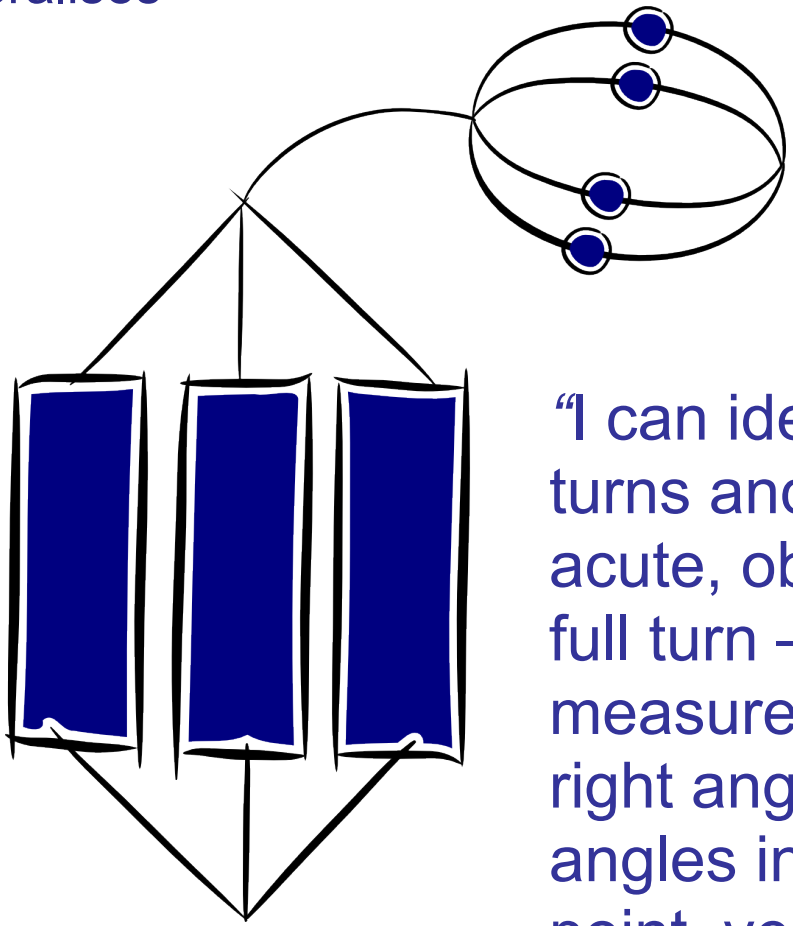
SOLO EXTENDED ABSTRACT:

Learning outcomes go beyond subject and makes links to other concepts - generalises



"I can identify clockwise and anticlockwise turns and simple angles (right angle, acute, obtuse, straight angle, reflex angle, full turn – or 90, 180, 30, 45, 60) measure, order and compare angles with right angles **AND estimate and predict** angles in a triangle, angles around a point, vertically opposed angles .

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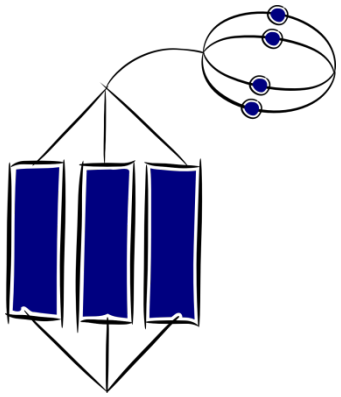

I can create an animation in Scratch where the avatar turns clockwise and anticlockwise and has a motion path that makes a right angle turn, acute, obtuse, straight angle, reflex angle, and full turn – or 90, 180, 30, 45, 60. AND measure, order and or compare angles with for example right angles to create motion paths for reflection, rotation and translation, **AND estimate and predict angles or a sequence of angles to create animation special effects**

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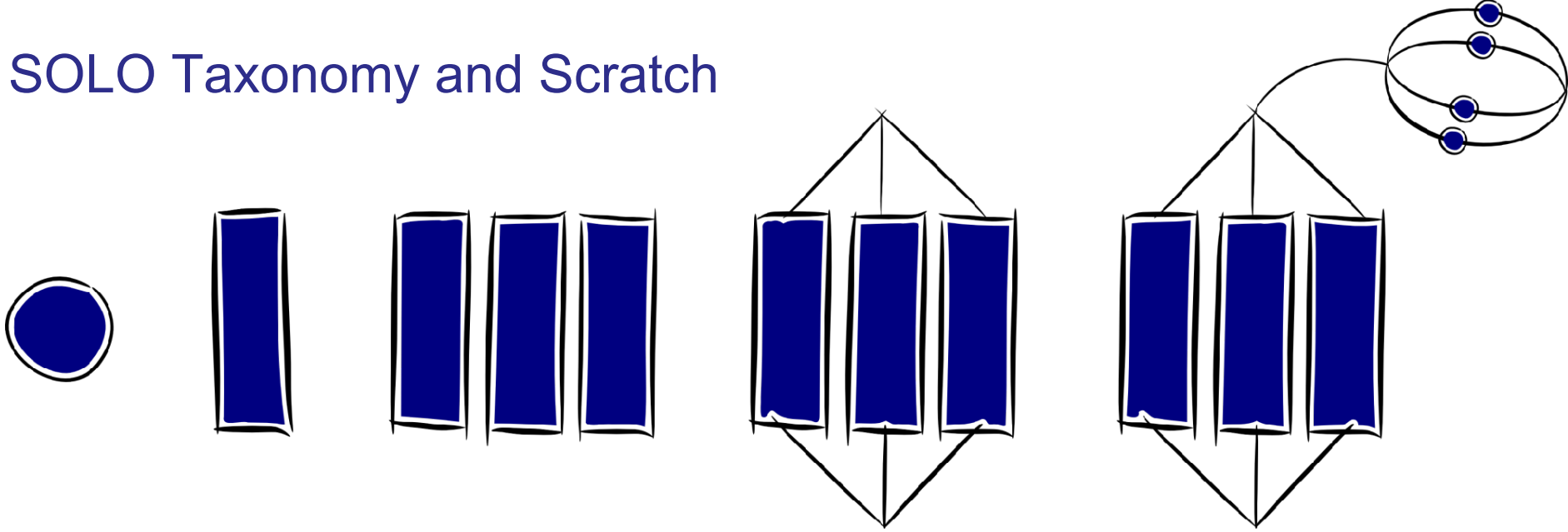
SOLO Taxonomy and Scratch



	I can identify the clockwise and anticlockwise turns and the right angle used in the Scratch animation motion path and describe the movement of the avatar in terms of rotation..	**I can identify** the angles used in the Scratch animation path and describe the movement of the avatar in terms of reflection, rotation and translation.	**I can explain** using the appropriate language of angle names, degrees, measurement, order and comparison why the angles were chosen to create the Scratch animation effect used for reflection, rotation and translation.	**I can predict** using the appropriate language of angle names, degrees, measurement, order and comparison how to use angles to create a special Scratch animation effects showing reflection, rotation, translation.

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transforming learning outcomes

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