

LO: Turns and angles

An angle is the measure of a turn.

In this lesson, we're turning in $\frac{1}{4}$ turns, $\frac{1}{2}$ turns, $\frac{3}{4}$ turns and full turns.

We're also turning in two directions: clockwise, which is the direction that the hands move around a clock; and anti-clockwise, which is the direction a clock's hands do not move. In this lesson, there are arrows to help.

Blue = clockwise

Red = anti-clockwise.

Activity 1

Your task in this activity is to say what angle the person has moved and in which direction. Pink images are my examples. Grey images are the children's questions.

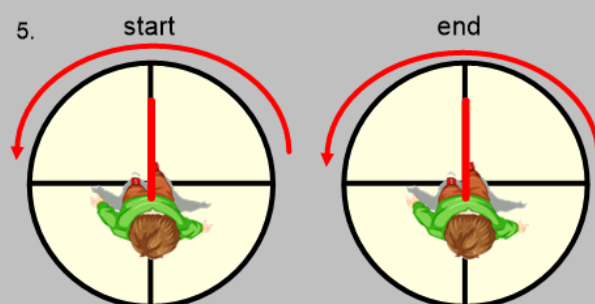
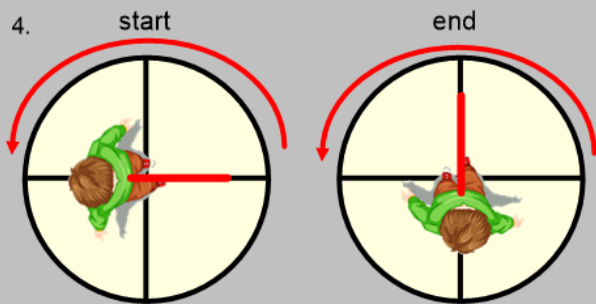
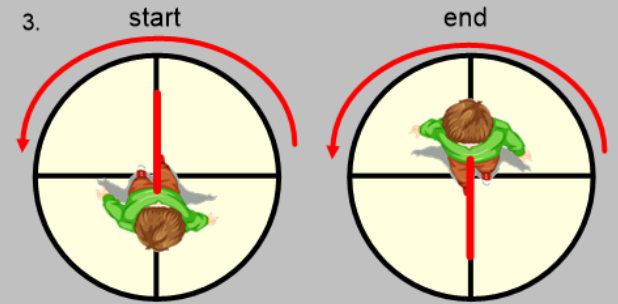
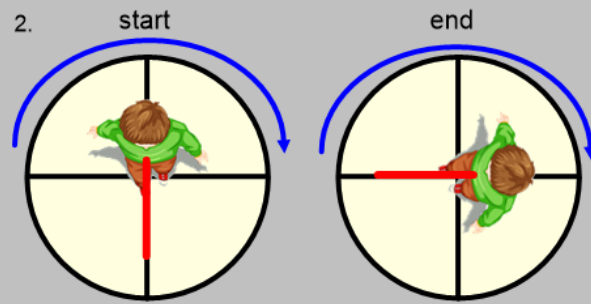
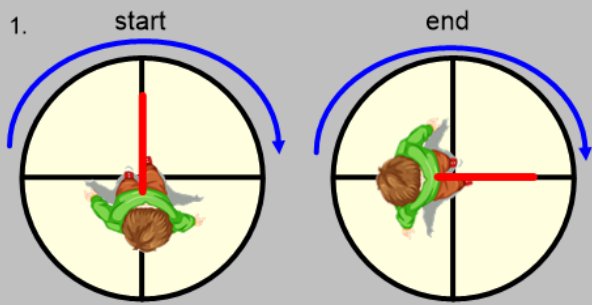
a. start end
a quarter turn clockwise

b. start end
a three quarter turn clockwise

c. start end
a quarter turn anti-clockwise

d. start end
a half turn anti-clockwise

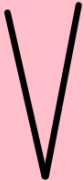
The diagrams illustrate four different turns on a circular platform. Each diagram shows a 'start' position and an 'end' position. In (a), a person starts facing up and turns clockwise to face right. In (b), a person starts facing up and turns clockwise to face down. In (c), a person starts facing right and turns anti-clockwise to face up. In (d), a person starts facing right and turns anti-clockwise to face left. Blue arrows indicate clockwise turns, and red arrows indicate anti-clockwise turns.

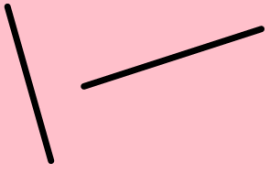



Activity 2

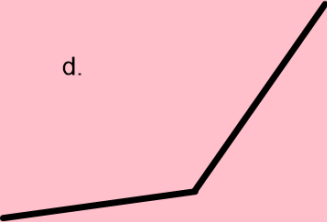
An angle is created when two straight lines meet at a point.

In this activity, the children have to decide if an image does or does not show an angle. Remember, pink are my examples and grey are for the children to do.


a.  a. is an angle

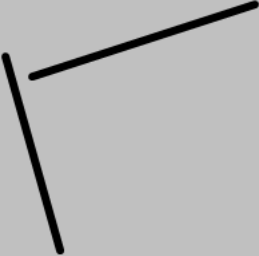
b.  b. is not an angle

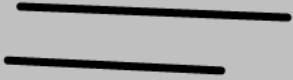
c.  c. is not an angle


d.  d. is an angle

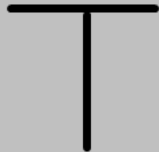
Tick the images which show angles.

1. 

2. 

3. 

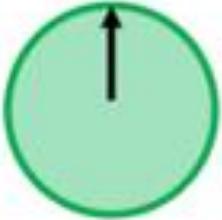
4. 

5. 

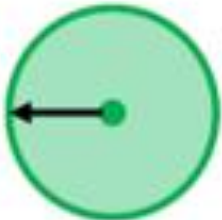
Challenge

Here are a couple of reasoning/problem solving challenges for the children to have a go at using the knowledge and skills they've gained in the lesson.


The arrow on a spinner started in this position.



After making a turn it ended in this position.




Jack says,



The arrow has moved a quarter turn anti-clockwise.


Alex says,



The arrow has moved a three-quarter turn clockwise.

Who do you agree with?

The letter 'X' has four angles.



Write your name in capital letters.
How many angles can you see in each letter?
How many angles are there in your full name?

