THIRD SPACE LEARNING

Ready-to-go Lesson Slides Year 2

Position and direction

Lesson 2

Sum1

At Third Space Learning we provide personalised online lessons from specialist maths tutors to support the target groups in your school.

These ready-to-go slides are designed to work alongside our interventions to supplement quality first teaching and raise attainment in maths for all pupils.

To find out more about how you could use our 1-to-1 interventions year-round to boost maths progress in your school then get in touch:

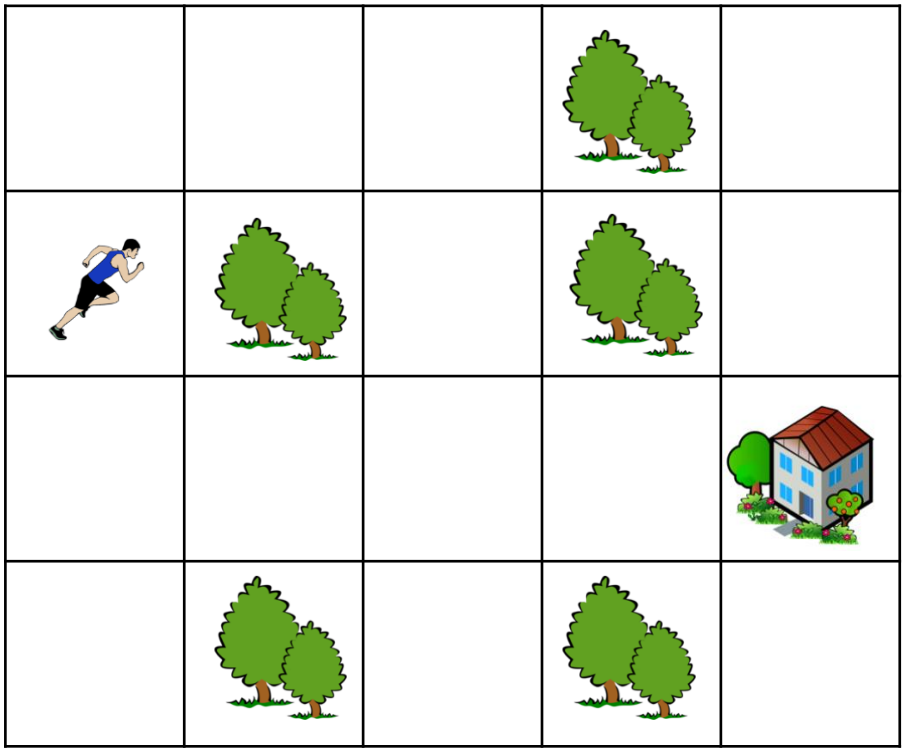
020 3771 0095
hello@thirdspacelearning.com

Boosting maths progress through 1-to-1 conversations…

To describe turns

- ❑ I can use the language ‘full turn’, ‘half turn’, ‘quarter turn’, ‘three-quarter turn’, ‘clockwise’ and ‘anti-clockwise’
- ❑ I know it is important to think about the direction I am facing when describing turns

Starter: Which direction is missing to get the runner back home?



Left 1,

Forward 2,

Right 2,

_____ .

To describe turns

- ❑ I can use the language ‘full turn’, ‘half turn’, ‘quarter turn’, ‘three-quarter turn’, ‘clockwise’ and ‘anti-clockwise’
- ❑ I know it is important to think about the direction I am facing when describing turns

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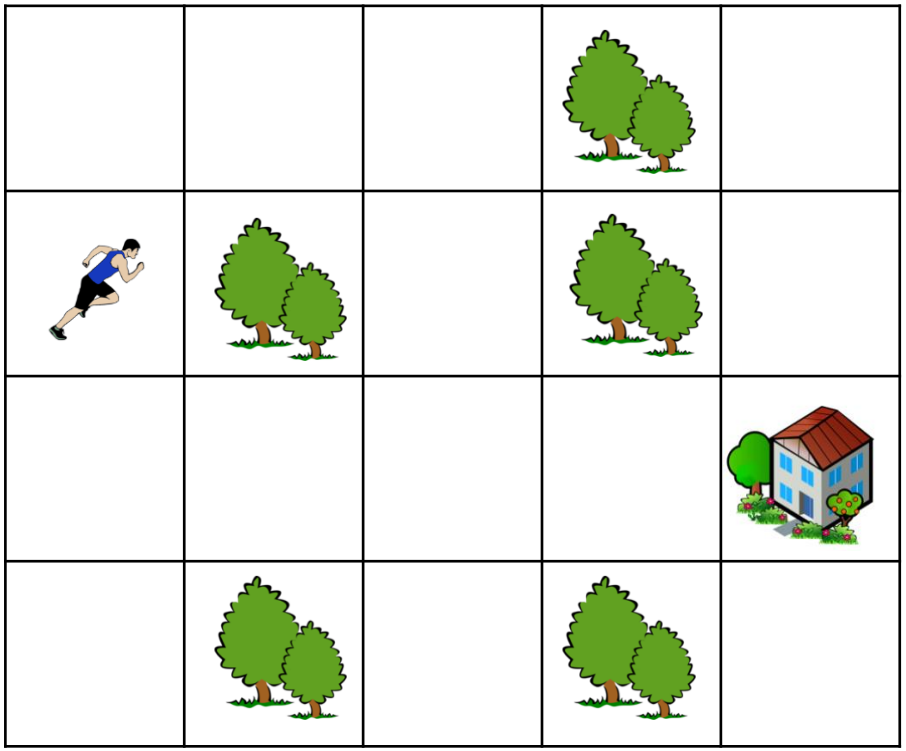


Left 1,

Forward 2,

Right 2,

Forward 2.

Extension:
Is there an easier way for the runner to get home using just two directions? What would those directions be?

To describe turns

Talking Time:

Alice places a gingerbread man on the table like this.

She turns it a quarter turn, anti-clockwise.

Can you draw the gingerbread man's new position?

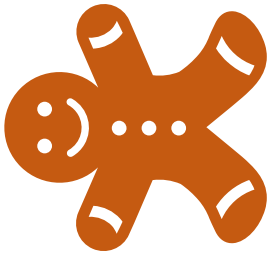
To describe turns

Talking Time:

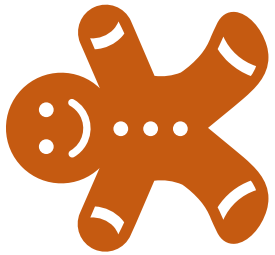
Alice places a gingerbread man on the table like this.

She turns it a quarter turn, anti-clockwise.

Can you draw the gingerbread man's new position?



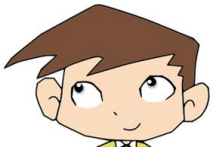
To describe turns



Talking Time:

Ollie has seen Alice's gingerbread man on the table in this position.

He turns it one half turn in a clockwise direction.

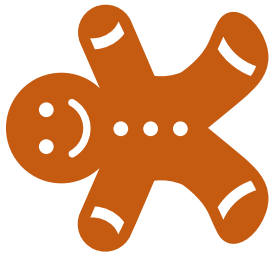


Can you draw the gingerbread man's new position?
Does it matter whether Ollie turns the gingerbread man in a clockwise or anti-clockwise direction for a half turn?

Can you explain your thinking?

To describe turns

Talking Time:



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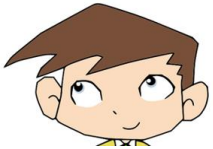


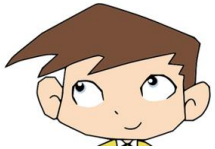
Can you draw the gingerbread man's new position?
Does it matter whether Ollie turns the gingerbread man in a clockwise or anti-clockwise direction for a half turn? No, it does not matter.

Can you explain your thinking?
A half turn clockwise and a half turn anti-clockwise will leave the gingerbread man in the same position.

To describe turns

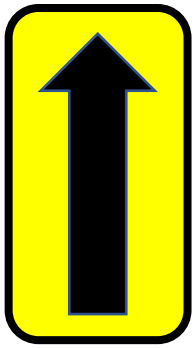
Activity 1:

Alice and Ollie are playing a ‘Follow Me’ game with an arrow drawn on card.
Alice gives Ollie instructions to turn his arrow to match hers.



Can you follow Alice’s instructions and turn an arrow?
Does your arrow match Alice’s and Ollie’s?

Start like this

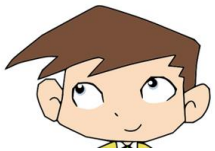


1. Turn your arrow a half turn
2. Turn your arrow a quarter turn clockwise
3. Turn your arrow a three-quarter turn anti-clockwise
4. Turn your arrow a half turn
5. Turn your arrow a full turn
6. Turn your arrow a half turn

To describe turns

Activity 1:

Alice and Ollie are playing a ‘Follow Me’ game with an arrow drawn on card?
Alice gives Ollie instructions to turn his arrow to match hers.



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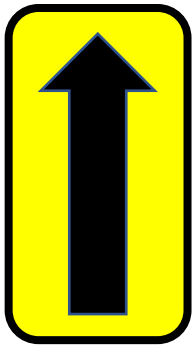

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3. Turn your arrow a three-quarter turn anti-clockwise
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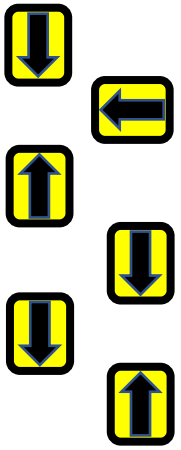
5. Turn your arrow a full turn
6. Turn your arrow a half turn

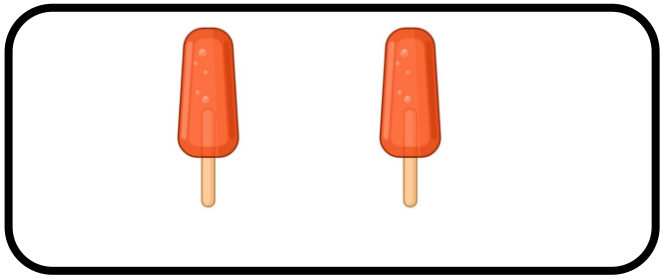


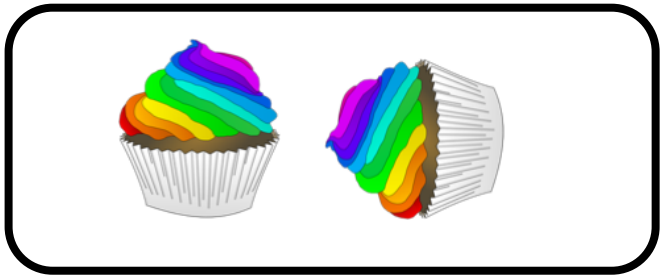
Finish like this

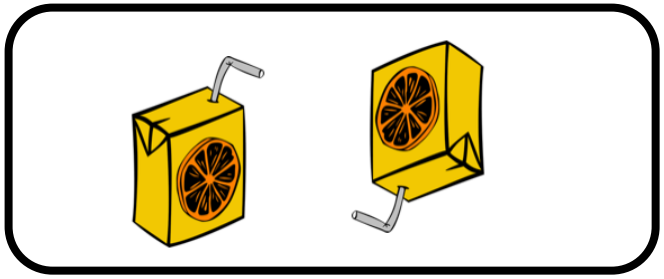
To describe turns

Talking Time:

Can you match the labels to the images to show how much they have turned?







a half turn clockwise

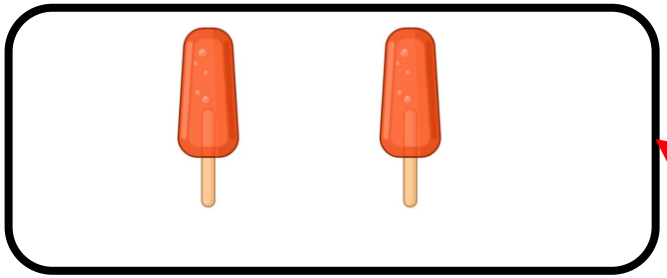
a full turn

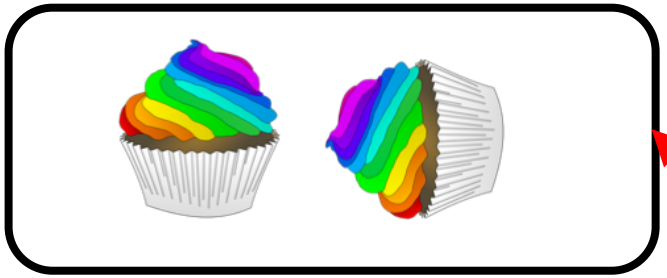
a quarter turn anti-clockwise

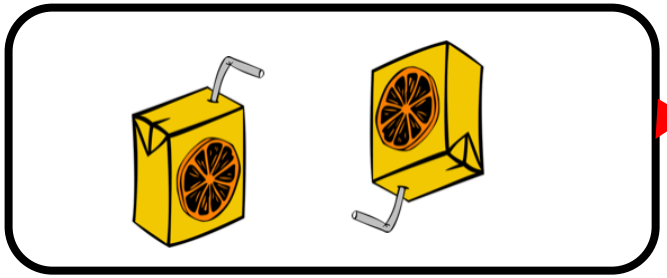
To describe turns

Talking Time:

Can you match the labels to the images to show how much they have turned?







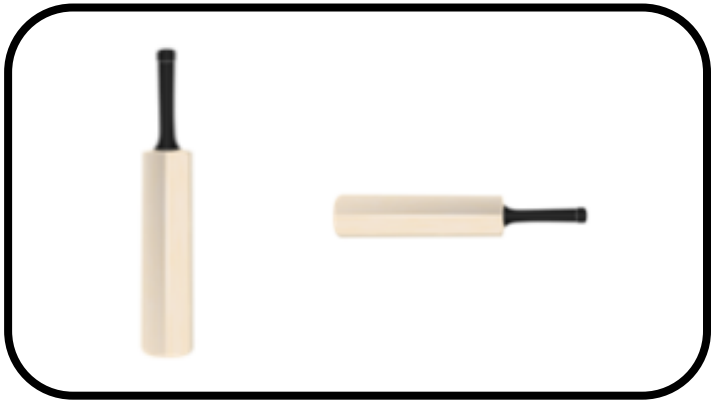
a half turn clockwise

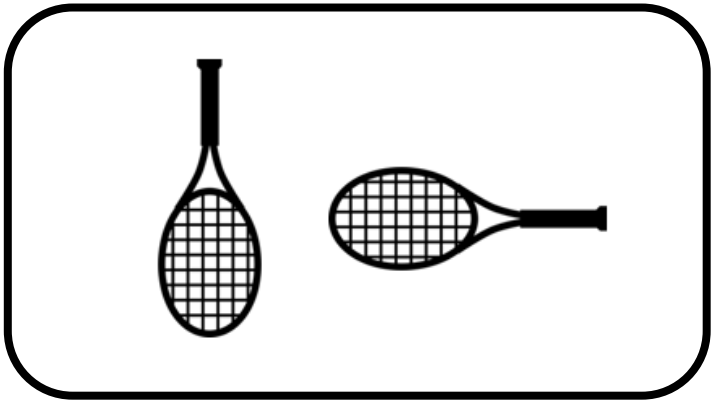
a full turn

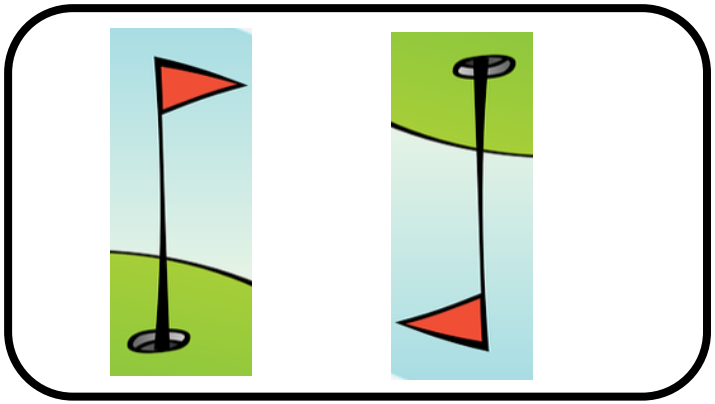
a quarter turn anti-clockwise

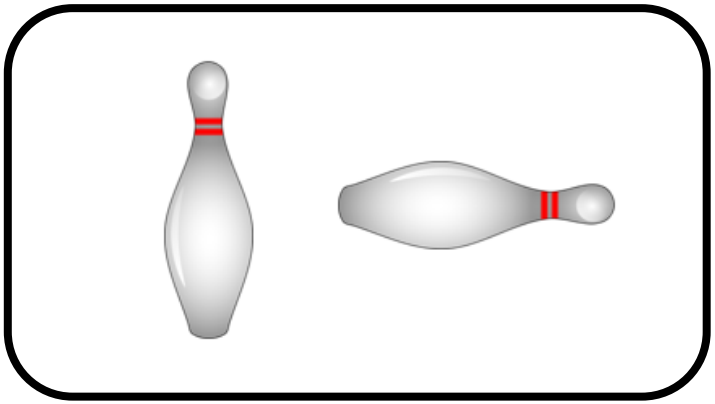
To describe turns

Talking Time: Thinking about amounts of turn, which of these pairs of images is the odd one out? Can you explain your thinking?



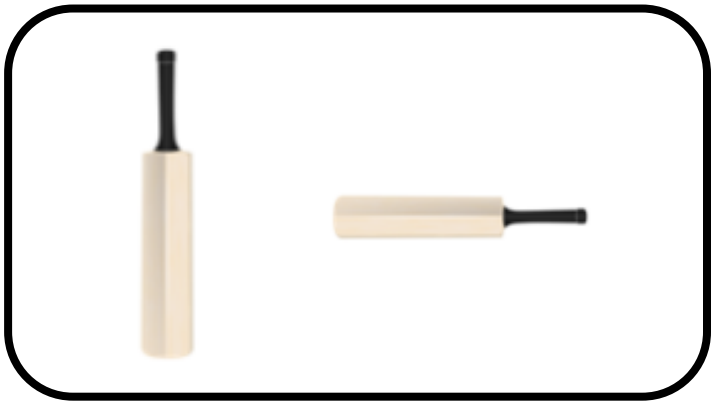


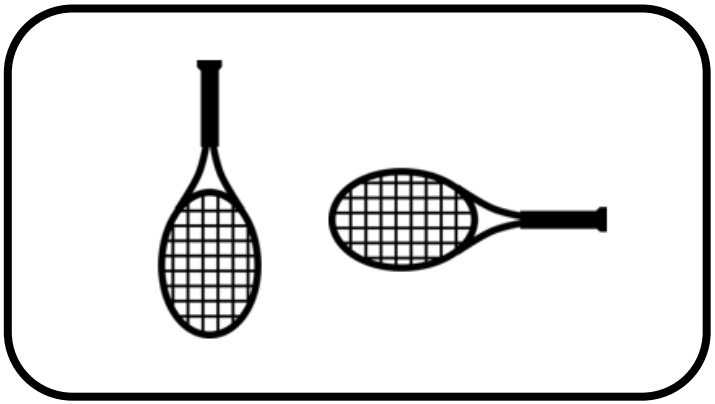


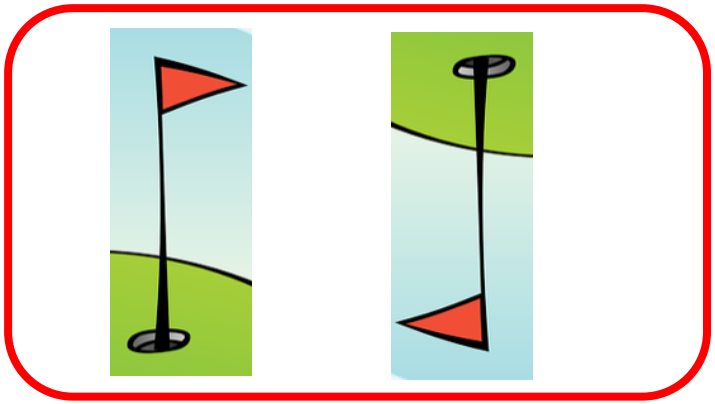


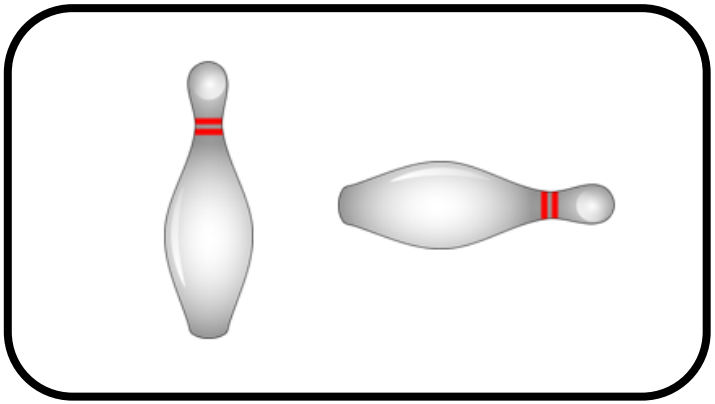
To describe turns

Talking Time: Thinking about amounts of turn, which of these pairs of images is the odd one out? Can you explain your thinking?









The golf flag image is the odd one out. It shows a half turn. All the other images show a quarter turn clockwise or a three-quarter turn anti-clockwise.

To describe turns

Talking Time:

This arrow has been turned once from the start to the finish position.
How might the arrow have been turned? Is there more than one answer?

To describe turns

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This arrow has been turned once from the start to the finish position.
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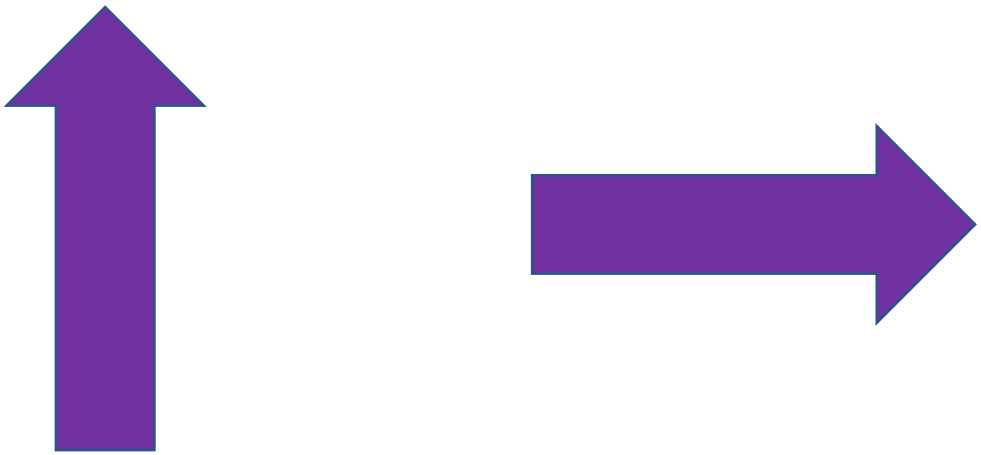
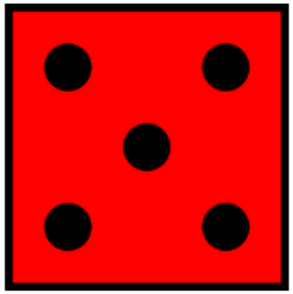


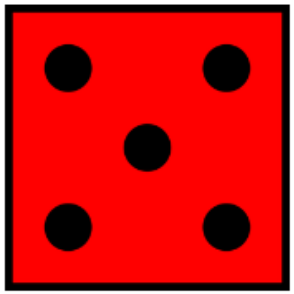
start finish

There is more than one answer. The arrow might have been turned a **quarter turn in a clockwise** direction OR a **three-quarter turn in an anti-clockwise** direction.

To describe turns

Activity 2: Here is the face of a dice.
How might this dice have been turned?
Can you list all the possible answers?





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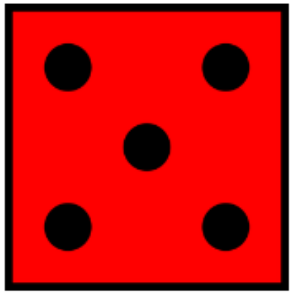
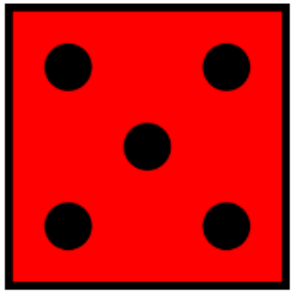




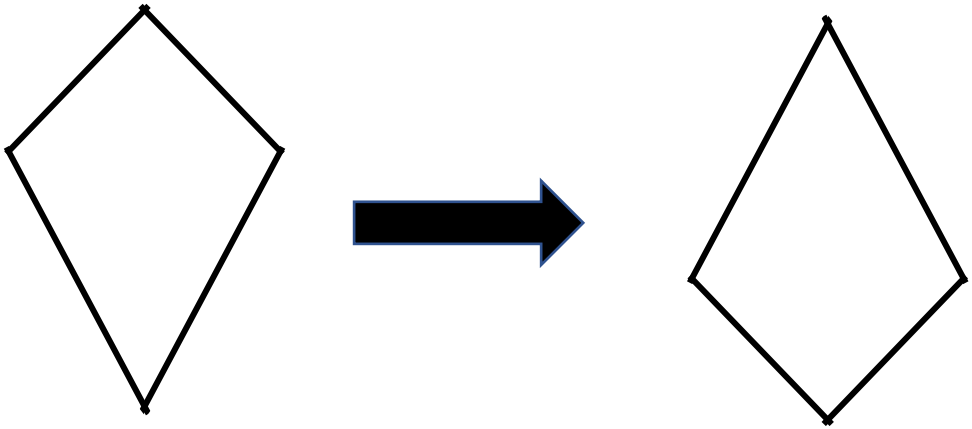
There may have been no turn at all.

It may have been turned in a clockwise direction – going a quarter turn, a half turn, a three-quarter turn or a full turn.

It may have been turned in an anti-clockwise direction – going a quarter turn, a half turn, a three-quarter turn or a full turn.

To describe turns

Talking Time: Can you explain how the kite has been turned?
How far has it been turned?
In what direction has it been turned?
Can you complete the stem sentence below?

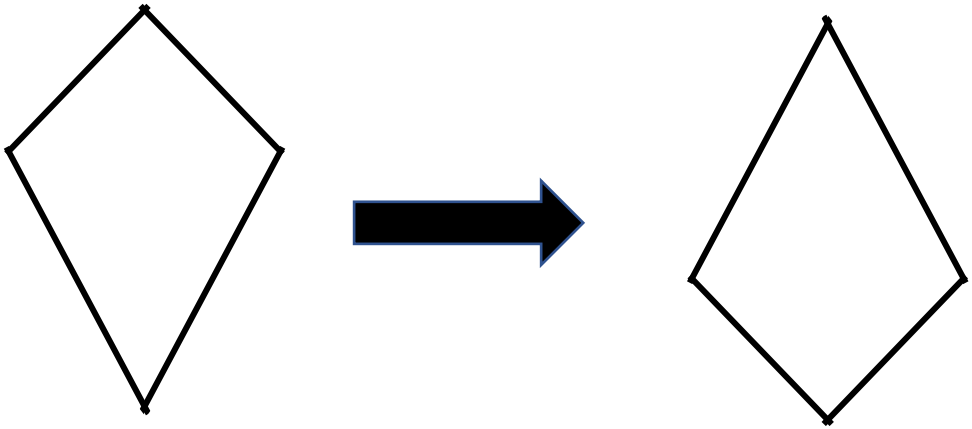


The kite has made a _____ turn.

It has been turned in a _____ direction.

To describe turns

Talking Time: Can you explain how the kite has been turned?
How far has it been turned?
In what direction has it been turned?
Can you complete the stem sentence below?

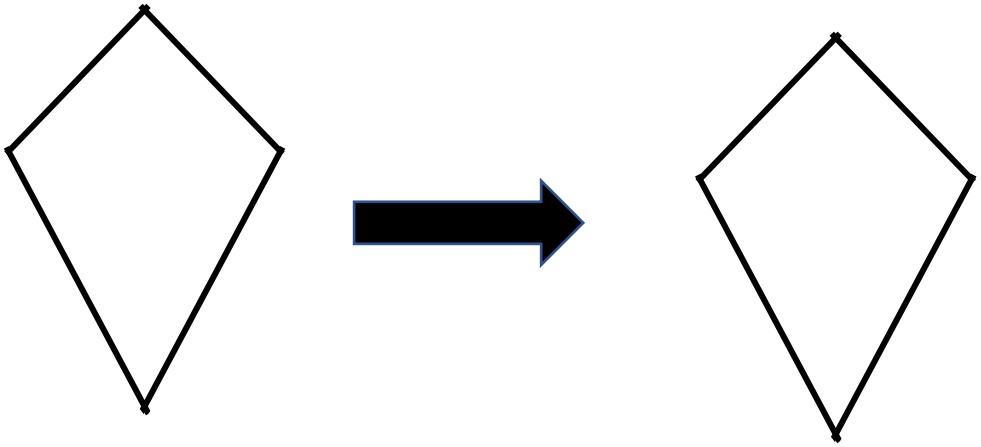


The kite has made a **half** turn.

It has been turned in a **clockwise** **or an** **anti-clockwise** direction.

To describe turns

Talking Time: Can you explain how the kite has been turned?
How far has it been turned?
In what direction has it been turned?
Can you complete the stem sentence below?

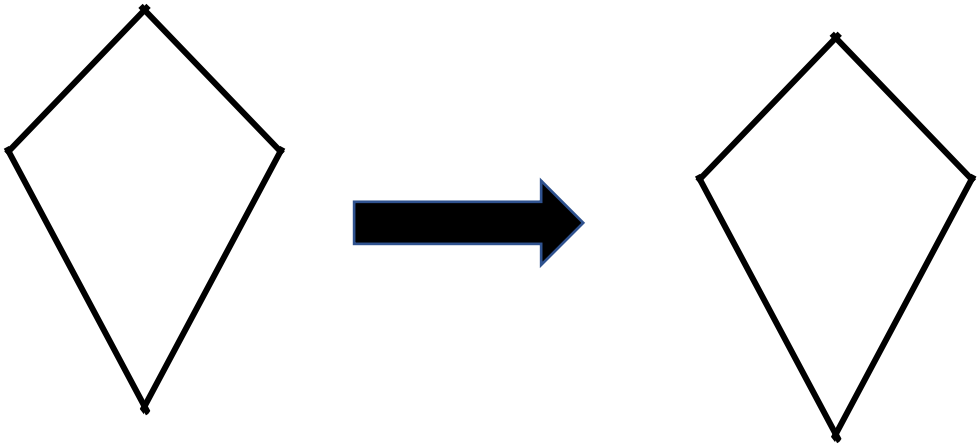


The kite has made a _____ turn.

It has been turned in a _____ direction.

To describe turns

Talking Time: Can you explain how the kite has been turned?
How far has it been turned?
In what direction has it been turned?
Can you complete the stem sentence below?

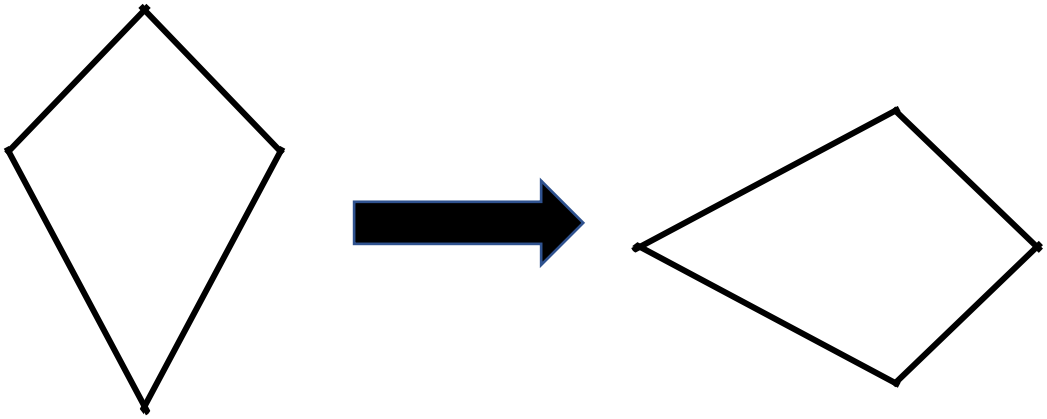


The kite has made a **full** turn.

It has been turned in a **clockwise** **or an** **anti-clockwise** direction.

To describe turns

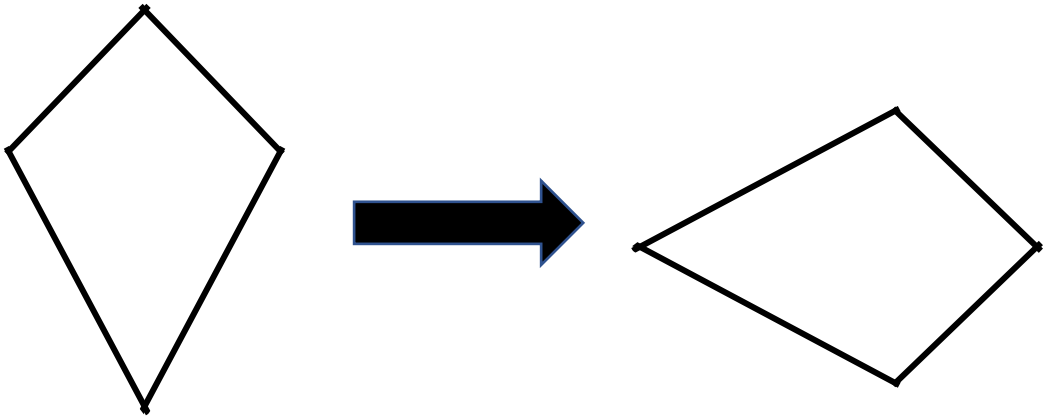
Talking Time: Can you explain how the kite has been turned?
How far has it been turned?
In what direction has it been turned?
Can you complete the stem sentence below?



The kite has made a _____ turn in a _____ direction
or
a _____ turn in an _____ direction.

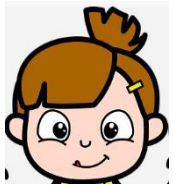
To describe turns

Talking Time: Can you explain how the kite has been turned?
How far has it been turned?
In what direction has it been turned?
Can you complete the stem sentence below?



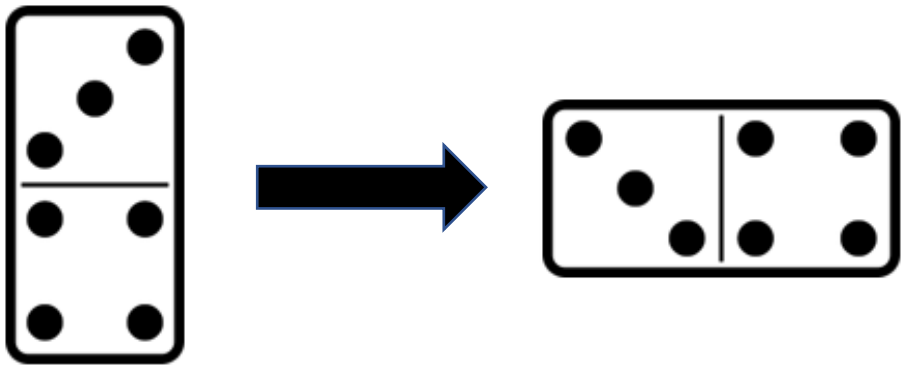
The kite has made a **quarter** turn in a **clockwise** direction
or
a **three-quarter** turn in an **anti-clockwise** direction.

To describe turns

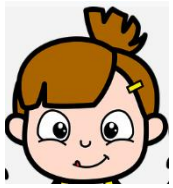


Activity 3:

Lola has chosen a domino to make a **quarter turn clockwise**.
Lola decides to draw the domino before the turn and after the turn.
Has she drawn the second domino correctly? Can you explain your thinking?



To describe turns



Activity 3:

Lola has chosen a domino to make a **quarter turn clockwise**.
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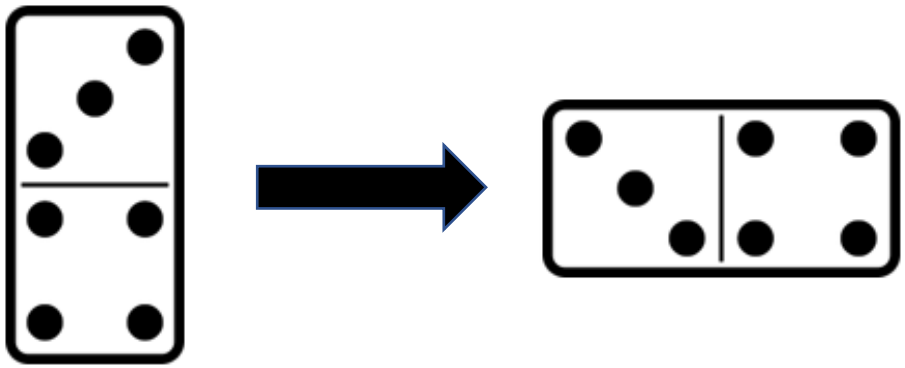
Has she drawn the second domino correctly?
Can you explain your thinking?



Lola has drawn a quarter turn for the second domino.
However, she has turned it in the wrong direction.
Lola has turned her domino a quarter turn in an anti-clockwise direction.

To describe turns

- ❑ I can use the language ‘full turn’, ‘half turn’, ‘quarter turn’, ‘three-quarter turn’, ‘clockwise’ and ‘anti-clockwise’
- ❑ I know it is important to think about the direction I am facing when describing turns

Evaluation: Here is a smiley face.
Can you draw its new position each time?

1. Can you draw the  after a full turn in a clockwise direction?

2. Can you draw the  after a half turn in an anti-clockwise direction?

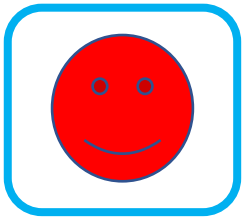
3. Can you draw the  after a three-quarter turn in a clockwise direction?

To describe turns

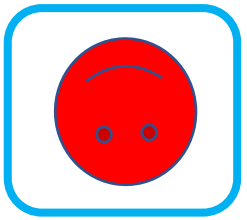
- ❑ I can use the language ‘full turn’, ‘half turn’, ‘quarter turn’, ‘three-quarter turn’, ‘clockwise’ and ‘anti-clockwise’
- ❑ I know it is important to think about the direction I am facing when describing turns

Evaluation: **Here is a smiley face.**
Can you draw its new position each time?

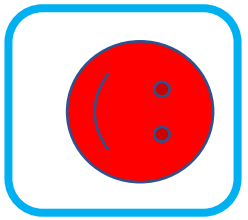
1. Can you draw the  after a full turn in a clockwise direction?



2. Can you draw the  after a half turn in an anti-clockwise direction?



3. Can you draw the  after a three-quarter turn in a clockwise direction?



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