

Winter weather emergencies: learn

These activities introduce winter weather emergencies: they look at the types of winter weather that can happen in the UK and the impacts winter weather can have. Activities explore some of the actions children and their families can take when responding to a winter weather emergency.

Activities can be worked through in order. You can do all activities, or you can pick and choose. If you are short on time, you could pick the following activities:

1. What is winter weather?
and
2. What does winter weather look like?
and
3. Winter weather characteristics and effects **or** Experiencing winter weather.

The 'Winter weather worksheets' are optional. These worksheets can be used as homework activities.

Learning objectives

By the end of the 'Winter weather emergencies: learn' activities children will be able to:

- > Identify and describe different types of winter storms and severe weather types, and the impacts they can have on people and the environment.

Learn activity summary		
Time	Activity name	Supporting resources
10 minutes	What is winter weather?	Winter weather factsheet for teachers Sticky notes and pens Sticky tack
15 minutes	What does winter weather look like?	Winter weather short film Winter weather short film transcript 'Where and when does it snow and sleet in the UK?' presentation Snow and sleet maps of the UK Winter weather factsheet for teachers
10 minutes	Winter weather characteristics and effects	'Winter weather characteristics and effects' presentation 'Winter weather characteristics and effects' signs
20 minutes	Experiencing winter weather	Experiencing winter weather character cards
10-20 minutes	Winter weather worksheets	'Winter weather crossword puzzle' worksheet 'Winter weather crossword puzzle' answers 'Winter weather true or false' worksheet 'Winter weather true or false' answers

1. What is winter weather?

Activity type



Learn

Suggested time



10 minutes

Suggested group size



Small groups

What you need

1. [Winter weather factsheet for teachers](#)
2. Sticky notes and pens
3. Sticky tack

Introduction

This activity introduces what winter weather is, by exploring what the children already know about winter weather and developing their understanding through the information listed in the 'Winter weather factsheet for teachers'.

Activity description

Before the activity:

1. Handout sticky notes and pens to each group of children.
2. Print out a copy of the 'Winter weather factsheet for teachers' for your reference.

Divide the class into small groups. Write 'winter weather' in the centre of the board. Explain that:

- > In this lesson we are going to start thinking about winter weather emergencies and how to stay safe if one were to happen.
- > In your groups discuss and then write down words or phrases that make you think of winter weather and its effects. Use a different piece of paper for each word or phrase. These words or phrases could be about what winter weather looks like, when and where it can happen, or how it can affect people or the environment.

Give the children a few minutes to note down some ideas.

- > One member of each group at a time brings one of your groups sticky notes up to the board.
- > Read the word or phrase out to the class and then stick it onto the board around the phrase 'winter weather'. If you have the same word as other groups, stick them next to each other.

Continue this process until all the words/phrases children have written have been read and put up on the board.

Ask the class how they think winter weather emergencies happen, drawing out the discussion by referring to the 'Winter weather factsheet for teachers.'

2. What does winter weather look like?

Activity type



Learn

Suggested time



15 minutes

Suggested group size



Whole group

What you need

1. [What is winter weather?](#)
2. 'Where and when does it snow and sleet in the UK' presentation
3. [Snow and sleet maps of the UK](#)
4. [Winter weather factsheet for teachers](#)

Introduction

This activity helps children become familiar with what winter weather looks like and the places it can affect by looking at snowfall maps of the UK.

Activity description

Before the activity:

1. Have the 'What is winter weather?' information to read out.
2. Have the 'Where and when does it snow and sleet in the UK?' presentation ready.
3. Print out copies of the 'Snow and sleet maps of the UK'. You will need one copy for each group.
4. Print out a copy of the 'Winter weather factsheet for teachers' for your reference.

Introduce Winter weather:

- > Explain that you are going to read out some information about winter weather. It will show you what winter storms and severe cold weather look like, and the impacts they can have on the environment and people. It will also give you a few tips on how to stay safe.

After watching the film, explore and discuss key facts about winter weather drawn out from the film. You can use the following suggested prompt questions to generate a group discussion:

- > What kinds of winter weather might affect us?
- > What are the risks related to winter storms and severe cold weather?
- > What do we need to look out for and be careful of?
- > How might we stay safe?
- > How might we be prepared?

You can use the 'Winter weather factsheet for teachers' to develop children's understanding and knowledge if needed.

Divide the class into small groups and give each group a copy of the 'Snow and sleet maps of the UK'. Explain that:

- > In the film we watched, it was mentioned when winter storms and severe cold weather usually happen.
- > Each group has been given a worksheet with four maps on it. Each map shows the number of days it snows and sleet in the UK in a particular season – either winter, spring, autumn or summer. The darker the colour blue, the more days it snows. If a section of the map is mostly white, it means it has not snowed or sleeted at all in that area.
- > As a group, look through the maps and decide which season you think the map shows. Then write the names of the seasons under the maps.

Give the children time to complete the worksheet, then come back together. Show the 'Where and when does it snow and sleet in the UK?' presentation working through the slides and asking groups which season they think each map shows. A description of what each map shows is included in the notes section of the presentation. On each presentation slide also explore the following:

- > Are some areas affected by winter weather more than others?
- > How might weather events affect people's lives?
- > How might people feel during a severe winter storm?
- > What can they do to stay safe?

3. Winter weather characteristics and effects

Activity type



Learn

Suggested time



10 minutes

Suggested group size



Whole group

What you need

1. 'Winter weather characteristics and effects' presentation
2. ['Winter weather characteristics and effects' signs](#)

Introduction

This activity helps children identify the characteristics of severe winter weather and the impacts it can have on people and the environment.

Activity description

Before the activity:

1. Print out the 'Winter weather characteristics and effects' signs and put them up on opposite sides of the room.
2. Print the 'Winter weather characteristics and effects' presentation with notes and follow the instructions below.

On each slide of the presentation there is a description of either a characteristic or an effect of winter weather. As a class, the children have to decide whether what is on the slide is a characteristic and move to the sign on either side of the room: 'Characteristic' or 'Effect'. If they are not sure, they can stand in between the signs.

Explain that characteristics include what severe winter weather looks like, and effects are the impacts severe winter weather can have on people or the environment.

After everyone has moved in response to a slide, ask for a few comments from different children as to what prompted them to choose where to stand, then give the answer as to whether the slide shows a characteristic or an effect. You may wish to write these on the board under two category headings ('Characteristics' and 'Effects') as you move through each slide. The answers are below and in the notes section of the presentation:

Characteristics:

- > cold temperatures
- > ice
- > snowstorm
- > snow
- > hail
- > sleet.

Effects:

- > seeing your breath
- > slippery pavements and roads
- > frozen water pipes
- > power-cuts
- > not being able to see far in front of you.

To conclude the activity, summarise which are the characteristics and which are the effects of winter weather.

4. Experiencing winter weather

Activity type



Learn

Suggested time



20 minutes

Suggested group size



Small groups

What you need

1. [Experiencing winter weather character cards](#)

Introduction

This activity helps children consider what experiencing a severe thunderstorm might be like, through an exercise called 'hot seating'.

Activity description

Before the activity:

1. Print out copies of the 'Experiencing a thunderstorm character cards' and cut out the four cards. You will need one set of cards for each group.

Divide the class into small groups and explain that:

- > To help us understand what it might be like to be affected by a winter weather emergency, we are going to do an activity called 'hot seating'.
- > 'Hot seating' means one person takes on a character and the rest of the group ask questions to help them learn more about the character and their experiences.

Give one child in each group a character card. Allow time for them to read their card and familiarise themselves with the character.

Arrange each small group so that there is an 'audience' in front of a chair that is the 'hot seat'. If you prefer, you could have one hot seat and the whole class as the audience, with various children taking on different characters and taking the hot seat one at a time.

The children in each group ask the child in the hot seat questions about their experience of winter weather described on the character card. For example, they might ask:

- > How old are you?
- > Where do you live?
- > What were you doing and who were you with when it started?
- > Did it happen at night or during the day?
- > What could you hear and see during the winter weather emergency?
- > How did you feel during the winter weather emergency?
- > How would you be prepared for next time?

After a few minutes, another child in each group will get a new character card, and will be in the hot seat to answer questions. If you have time, continue in this way, letting four children in each group have a turn in the hot seat with a new character card.

At the end of the activity ask the class how they might feel during a winter weather emergency and what they might do to feel prepared. If you have time, you could work through some of the coping skills, to support children in learning techniques to keep calm in an emergency.

5. Winter weather worksheets

Activity type



Learn

Suggested time



5–10 minutes per worksheet

Suggested group size



Individual

What you need

1. [‘Winter weather crossword puzzle’ worksheet](#)
2. [‘Winter weather crossword puzzle’ answers](#)
3. [‘Winter weather true or false’ worksheet](#)
4. [‘Winter weather true or false’ answers](#)

Introduction

This activity helps children consolidate their learning about the impact of winter storms and severe cold weather and reinforce their language around this topic.

Activity description

Before the activity:

1. Print out one or both of the worksheets. You will need one copy for each pupil.
2. Print out a copy of the teacher answers sheet for each worksheet.

The following worksheets can be used in class or as follow-up homework activities:

- > Winter weather crossword
- > Winter weather true or false.

Winter weather factsheet for teachers

What are winter storms and severe cold weather?

- > Winter storms and severe cold weather can take different forms:
 - Hail: when rain freezes in the air and falls as ice pellets.
 - Snow: when rain falls slowly through cold air and freezes into ice crystals.
 - Sleet: snow which has begun the melting process before it reaches the ground, creating a rain and snow mix.
 - Ice: when it gets very cold, ice can form on roads and pavements where water has fallen.
 - Blizzard or snowstorm: when there is lots of snow, very strong winds and it is difficult to see because of the snow being blown around.
- > What is considered extreme cold and severe winter weather can vary across the country. For example, in parts of Scotland a winter storm with near-freezing temperatures could be considered normal winter weather, whereas in south England it could be considered a weather emergency.

What are the effects of cold weather on your body?

- > When your body experiences extremely cold temperatures, it loses heat more quickly than it can produce it. Remember, your body temperature is 37° Celsius (98.6°F) – so you can stay warm outside if you keep that heat from escaping into the cold air.
- > Frostbite happens when parts of the skin and other tissues freeze due to low temperatures. It usually affects the fingers, toes, ears and nose. If you experience pins and needles, throbbing or aching in any of these areas, or if your skin becomes pale and numb, you should seek shelter from the cold immediately.
- > It is best to stay inside whenever it is cold and especially during a winter storm. However, if you have to go outside, you should wear clothes that keep your body heat from escaping into the cold air: a hat that covers your ears, a scarf to cover your mouth and nose, mittens, water-resistant boots, and a wind-and-water-resistant coat. Dress in layers, because the air captured between layers of clothing provides insulation.

Staying safe in winter storms and severe cold weather

Weather forecasters issue a winter storm or cold weather alert when conditions indicate that a storm may occur within the next 12 to 48 hours. When a winter storm or cold weather alert is issued:

- > Review your emergency plans with your family, update home and car emergency supplies kits, and gather additional supplies you may need if you must stay indoors for several days.
- > Listen to the news for weather updates.
- > Remain indoors until the storm ends. If possible, avoid travel and trips outside.
- > Have a torch nearby in case there is a power-cut.
- > If the power goes out, remember that food in the refrigerator and freezer can spoil quickly. Eat refrigerated food first, frozen food next (within 2 days), and food from the cupboard last. But always remember this food safety rule: **When in doubt, throw it out!**
- > To prevent pipes from freezing, open sink cabinet doors to let in warm air from the room.

People who must travel during a winter storm and get stuck on the road should remain in the vehicle and wait for help. It is dangerous to go looking for help. If possible, phone 999 for assistance.

Winter weather checklist

Winter storms and severe cold weather can take different forms and include different types of weather. Share this checklist with your parents/guardians to help your family stay safe throughout a winter weather emergency.

- ☐ Stay indoors and don't go outside unless you really need to.
- ☐ Try not to travel anywhere.
- ☐ If you are travelling by car and it breaks down, stay inside and ring for help.
- ☐ Listen to the weather forecast for updates on the weather conditions.
- ☐ Have a torch somewhere accessible in case there is a power-cut.
- ☐ Gather extra supplies if you think you might need to stay put for longer than normal.
- ☐ To prevent pipes from freezing, open sink cabinet doors to let in warm air from the room.
- ☐ To minimise food spoilage during an extended power-cut, eat refrigerated food first, frozen food next (within 2 days), and food from the cupboard last.



Source: British Red Cross

What is winter weather?

Depending on where you live in the UK, what is considered to be extreme cold and severe winter weather can be different. For example, in parts of Scotland, a winter storm with near-freezing temperatures could be considered normal winter weather, whereas in south England, it could be considered a major weather emergency.

In the UK, winter weather features:

- > Really cold temperatures – sometimes it can get so cold outside you can see your breath when you breathe out.
- > Ice – when it is very cold, ice can form on roads and pavements.
- > Hail – this happens when rain freezes in the air and falls as ice pellets.
- > Snow – rain that has fallen slowly through cold air and frozen into ice crystals.
- > Sleet – snow that has begun the melting process before it reaches the ground, creating a rain and snow mix.
- > Snowstorms – when there is lots of snow, very strong winds and it is difficult to see because of the snow being blown around.

During this type of weather it is important to pay attention to the weather forecast. Sometimes you will hear a winter storm or cold weather alert being issued, which means a winter storm or cold weather is going to happen soon.

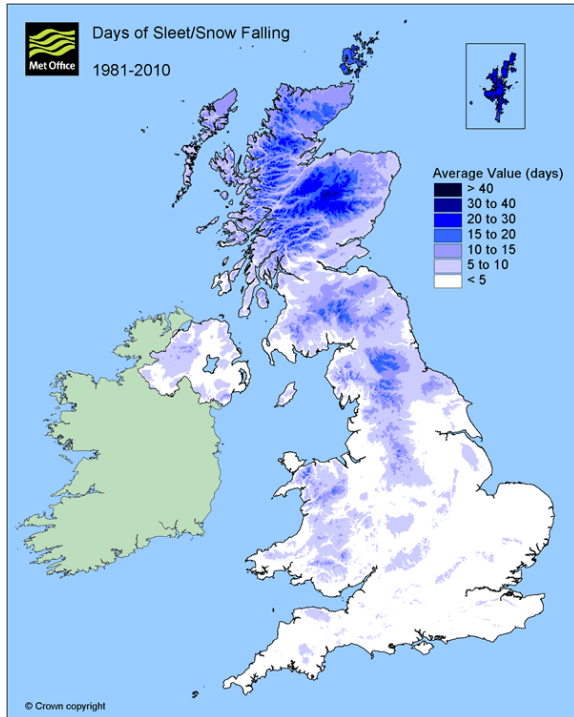
To stay safe during a winter storm:

- > Have an emergency supplies kit ready in case you need to stay indoors for several days.
- > Stay indoors in the warmth until the storm is over, and avoid travel and trips outside.
- > If you do go outside, make sure you dress warmly and let someone know where you are going.
- > If there is a power-cut, have a torch close by.
- > To prevent pipes from freezing, open sink cabinet doors to let in warm air.

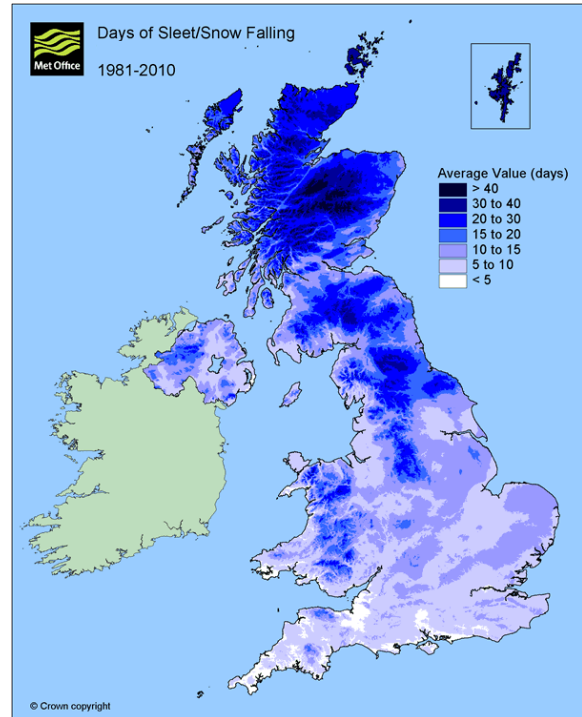
Remember: keep warm and stay indoors!

Snow and sleet maps of the UK

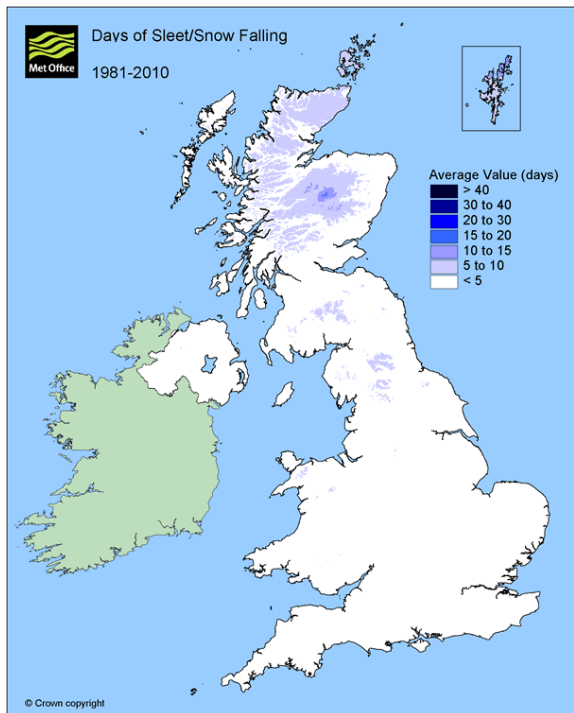
Look at the snow and sleet maps of the UK. Write the name of the season each map shows.



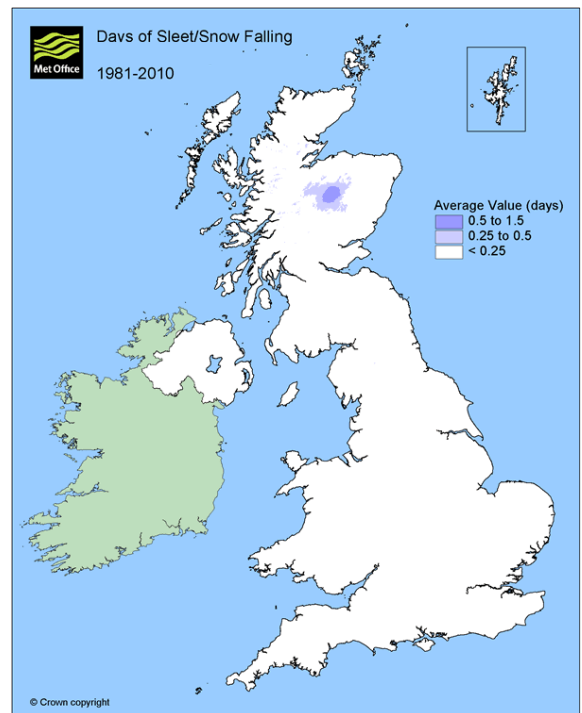
Season: _____



Season: _____



Season: _____



Season: _____

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Characteristic

Effect

Experiencing winter weather: character cards

Character card A

I live in a small seaside town in the south of England. One day I was walking back from the centre of town with my mum. The sky had been grey all day, it was really cold outside and I had to wear my big thick coat, scarf and hat. As we were walking home, it began to snow. The snow fell heavily all around us – we could hardly see anything in front of us. The pavement was really slippery and my mum had to hold my hand to make sure that we didn't fall.

Character card B

It was Saturday morning and I had just got up. I was getting ready to go to my football game when my dad called me downstairs. He was standing near the window and when I looked out, I saw that everything was covered in snow! The snow was so deep that it came up the side of the house. It looked as though my football game would have to be cancelled and I wasn't even sure whether we would be able to get out of the house. Dad tried the front door but the snow was pushed up against it and he couldn't get it open. We live in Scotland so we were used to winter weather, but I had never seen quite this much snow!

Character card C

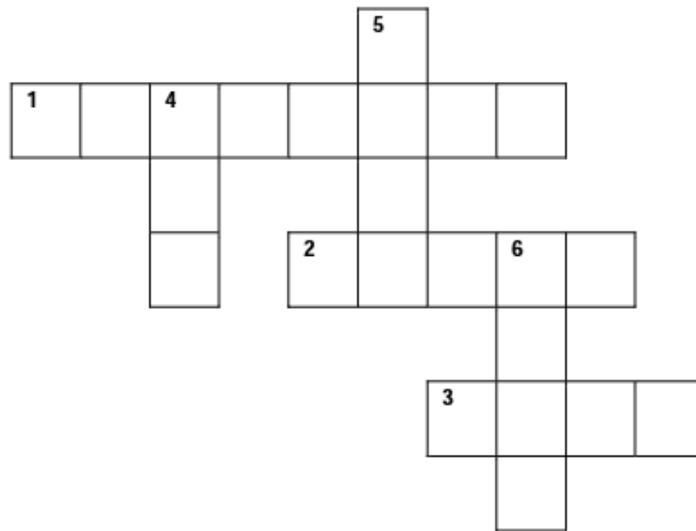
We were driving home from the supermarket and it was snowing quite heavily. It had been snowing on and off for the last few days and was beginning to stick. Suddenly, our car began to slow down and the engine started making a funny noise. Mum looked worried. She pulled over into a lay-by and put on the hazard lights so the cars behind us would see our car. It looked like we were going to be stuck there for a while. Mum rang the car mechanics on her mobile phone. It was so cold inside the car that I could see my breath. I pulled my scarf up around my ears.

Character card D

It was winter holiday time and we were planning to go and visit our family in Yorkshire. Where we lived it was cold but there was not any snow or anything. We were watching the news and we saw that there had been a snowstorm in Yorkshire. We were meant to be travelling there by train. My parents checked the train website and found out that all trains had been cancelled and that major delays were expected. My dad rang my auntie and explained the situation, and we decided we wouldn't take the risk of trying to travel to see them. I was disappointed as I had been looking forward to seeing my cousins, but we could now go out and buy winter holiday food!

Winter weather crossword puzzle

Read the clues and complete the crossword puzzle.



Across

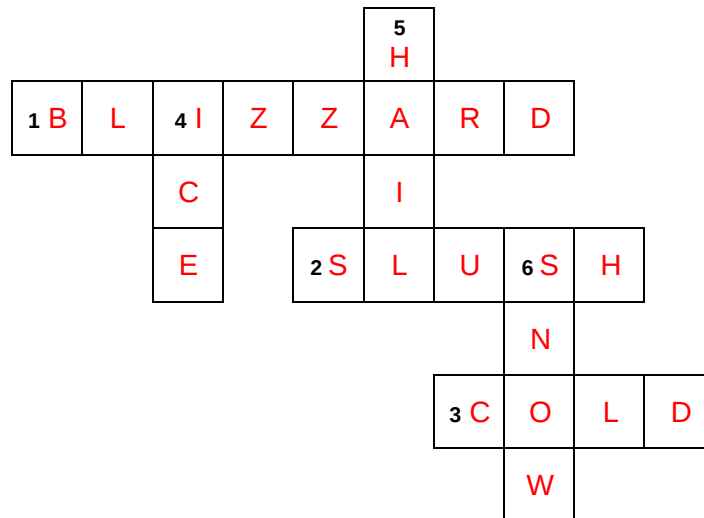
- 1 A storm with snow and strong winds.
- 2 Falling snow that has begun melting.
- 3 What the temperature is like in winter.

Down

- 4 Frozen water on roads and pavements.
- 5 Frozen ice pellets falling from the sky.
- 6 Ice crystals that fall slowly from the sky.

Winter weather crossword puzzle: answers

Read the clues and complete the crossword puzzle.



Across

- 1 A storm with snow and strong winds.
- 2 Falling snow that has begun melting.
- 3 What the temperature is like in winter.

Down

- 4 Frozen water on roads and pavements.
- 5 Frozen ice pellets falling from the sky.
- 6 Ice crystals that fall slowly from the sky.

Winter weather true or false

Megan is trying to remember what to do in severe winter weather. Read the things she says and decide whether they are true (✓) or false (✗).

	True	False
If you go outside in severe winter weather, make sure you dress warmly.		
If your car breaks down in a winter storm, you should get out and see what the problem is.		
It is always safe to go outside and play in the snow.		
You should open sink cabinet doors so that water pipes do not freeze if it gets very cold.		

Winter weather true or false: answers

Megan tries to remember what to do in severe winter weather. Read the things she says and decide whether they are true (✓) or false (✗).

	True	False
If you go outside in severe winter weather, make sure you dress warmly.	✓	
If your car breaks down in a winter storm, you should get out and see what the problem is.		✗
It is always safe to go outside and play in the snow.		✗
You should open sink cabinet doors so that water pipes do not freeze if it gets very cold.	✓	