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| **Which animals hibernate?** |
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| Card activity about animals that hibernate over the winter |
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| **Stay safe** |
| Whether you are a scientist researching a new medicine or an engineer solving climate change, safety always comes first. An adult must always be around and supervising when doing this activity. You are responsible for: • ensuring that any equipment used for this activity is in good working condition• behaving sensibly and following any safety instructions so as not to hurt or injure yourself or others  Please note that in the absence of any negligence or other breach of duty by us, this activity is carried out at your own risk. It is important to take extra care at the stages marked with this symbol: ⚠ |
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| **Subject(s):** Science**Approx. time:** 30 – 40 minutes |  | **Key words / Topics:** * animals
* food and nutrition
* habitats
* hibernation
* natural environment
* sleep
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| **Suggested learning outcomes** |
| * To identify and name a variety of animals that hibernate over the winter.
* To be able to compare food and hibernation habits of a variety of animals.
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| **Introduction** |
| This is one of a series of resources designed to allow learners to use the theme of the Christmas period to develop their knowledge and skills in Science and Engineering. This resource focuses on playing a card game to learn about the different animals that hibernate over the winter, where they hibernate, what they eat and how long they hibernate for.Can you win all the cards by showing your knowledge of animals and their hibernation habits? |
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| **Purpose of this activity** |
| In this activity learners will develop their knowledge and understanding of the different hibernation habits that some animals have and how long they tend to spend in hibernation. Learners will play a card game to demonstrate their knowledge in a fun and interactive manner.This activity could be used as a starter or main activity to develop knowledge and understanding of the term hibernation and give examples of animals that hibernate over the winter and their diets. It could also be sued as part of a wider scheme of learning focussing on animals and the natural environment. |
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| **Activity**  |  | **Teacher notes** |
| **Introduction (10 minutes)**Teacher to introduce the term hibernation and explain that learners are going to investigate which animals hibernate over the winter. Teacher to give examples of animals that typically hibernate.**Hibernation card matching activity (15-25 minutes)**Teacher to explain what hibernation means, put learners in pairs or groups and share out the hibernation matching cards. Explain the rules of the activity to the learners:* Aim of the activity: win all the cards!
* A learner deals out the cards
* Learners hold the cards to see the top card only
* The dealer reads out an item e.g. habitat 5
* The other player reads out the same item
* The player with higher value wins the other card
* The winning player from that hand then reads out an item on their next card – and so on.
* The player with all the cards at the end wins the game!

**Discussing the results of the activity (5 minutes)**Teacher to discuss the findings of the activity – give examples of animals that hibernate and their diets, and animals that are also partly active during the winter, e.g. badgers. |  | This activity could be carried out in pairs or small groups. **Hibernation matching card activity**Print and cut the cards out from the hibernation activity card sheets. Glue the card backs to the hibernation cards.Before the card matching activity, the teacher could discuss each of the sixteen animals and explain their hibernation habits. The card matching game could be repeated several times, for example as progressive knock-out style competition to find a class champion. |
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| **Differentiation** |  |  |
| **Basic** |  | **Extension** |
| * Learners to compare and sort the cards into which animals can fly, walk, or swim.
* Watch the video clip YouTube: BBC Studios: Winter hibernation Winter’s Tale <https://www.youtube.com/watch?v=3hSGuYMOe3E>
 |  | * Search the internet to find out what other animals hibernate across the world, e.g. chipmunks and groundhogs. Use these to create additional cards.
* Watch the video clips and complete the BBC Bitesize ‘Which animals hibernate quiz’. <https://www.bbc.co.uk/cbeebies/puzzles/hibernating-animals>
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| **Resources** |  | icon-doc**Required files** icon-pdficon-ppt |
| * Hibernation – matching cards
* Drawing paper
* Coloured pencils
 |  |  Teacher presentation – Animals that hibernateicon-pdf Hibernation Activity Cards |
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| **Additional websites** |  |  |
| * **BBC Bitesize - Which animals hibernate Quiz:** Online quiz that can be used to test knowledge of the topic as a plenary or extension activity. <https://www.bbc.co.uk/cbeebies/puzzles/hibernating-animals>
* **YouTube BBC Studios - Winter hibernation Winter’s Tale:** Clip from a BBC documentary about hibernating animals. <https://www.youtube.com/watch?v=3hSGuYMOe3E>
* **YouTube** - **Animal fun facts:** An American video explaining all about hibernation (American) <https://www.youtube.com/watch?v=HikaWbfaiyI&t=14s>
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| **Related activities (to build a full lesson)** |  |  |
| **Starters** (Options) * Watch one of the video clips and give examples of which animals hibernate over the winter. <https://www.youtube.com/watch?v=3hSGuYMOe3E>

<https://www.youtube.com/watch?v=HikaWbfaiyI&t=14s>* Ask learners who has a pet and where and when it sleeps.
 | **Extension** (Options)* Search the internet to find out what other animals hibernate across the world e.g. chipmunks and groundhogs. Use these to create additional cards.
* Complete the BBC Bitesize ‘Which animals hibernate quiz’. <https://www.bbc.co.uk/cbeebies/puzzles/hibernating-animals>

**Plenary*** Discuss the findings of the activity – give examples of animals that hibernate and their diets, and animals that are also partly active during the winter, e.g. badgers.
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| **The Engineering Context** film |
| * Space engineers are investigating how animals hibernate to see if humans could hibernate as well. This would allow astronauts to travel for long distances in space and visit distant planets.
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| **Curriculum links**  |
| **England: National Curriculum**ScienceKS1 Animals, including humans Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. | **Northern Ireland Curriculum**KS1 – The world around usInterdependence:* How do living things survive?
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| **Scotland: Curriculum for Excellence**SciencesBiodiversity and interdependence:* SCN 0.01a
* SCN 1-02a
* SCN 2-01a
* SCN 2-02a
 | **Wales: National Curriculum** ScienceKS2 – Interdependence of organisms* The interdependence of living organisms and their representation as food chains.
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| **Assessment opportunities** |
| * Formative assessment during the card activity.
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