



Engage

Teacher Network

CREST Star Kit Box Pilot Drop-in support session

March 2025

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In partnership with



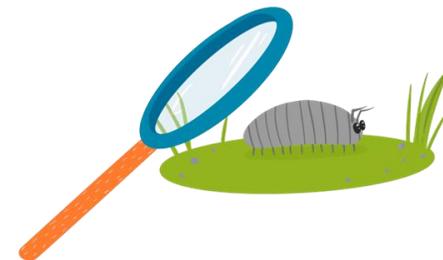
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Housekeeping

- Thank you for joining us!
- Please switch your cameras on if you're happy and able to.
- Feel free to join in with any thoughts and questions, or you can leave comments and queries in the chat.





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What we'll cover in today's session

- Timeline and CREST kit box aims
- A guide to the supporting resources
- A look at some Star projects in more detail
- Share your experience so far / Q & A





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CREST Star Kit Box Pilot – timeline

Spring Term 2 2025 – Drop-in support webinar – Wednesday 26 March

Summer Term 1 2025 – Drop-in support webinar – Tuesday 13 May

Summer Term 2 2025 – Post-activity evaluation

Our Star kit box is new and in its pilot year – we'd love to hear your thoughts and feedback, to help us improve it for future children and educators!





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CREST Star Kit Box Pilot - aims

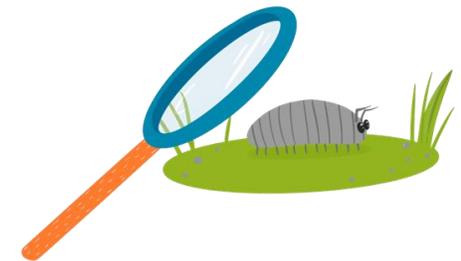
- Participation and inclusion for all children (not just an enrichment activity!)
- Children given the opportunity to complete at least **6 projects**, allowing them to gain their CREST Award certificate
- Use of the supporting resources (webpage, demo videos, PPT slides, drop-in webinar sessions)
- Family involvement
- Evaluation, to capture successes and highlight areas for development
- Resources can be shared with colleagues and re-used beyond this academic year





CREST Star Kit Box

Supporting resources





Supporting resources

- Dedicated CREST Star kit box webpage with links, ideas and FAQs

<https://www.crestawards.org/kit-box/star>

- Demo videos for each activity showing you how to set up the equipment, run the investigation and capture children's results
- Accompanying PPT slides to use on your whiteboard or a laptop, to introduce the activities and support your children's understanding
- Digital versions of the resources so you can print additional copies



Supporting webpage

<https://www.crestawards.org/kit-box/star>

The image shows a collage of webpage elements. At the top, navigation links include [Sign in](#), [Resource library](#), [Help centre](#), and [FAQs](#). Below these are links for [What is CREST?](#), [Why CREST?](#), [Which level?](#), [Fees and funding](#), [CREST supporters](#), and [Engage community](#). A search bar is also visible.

Your CREST kit box activities

- Animal Adventure**

#Outside #Whole class #Small group
Get children thinking about minibeasts and habitats. They will explore an outdoor area and go on a minibeast hunt!
[Download activity and organisers cards](#)
Video demo coming soon
Slides for learners coming soon
- Be Seen Be Safe**

- Peggy Problem**

- Plant Detectives**


Digital copies of your printed resources

You already have all the resources below printed for you in your CREST kit box. They are also provided here in case you need more copies, either to run this year or when re-using your kit box.

- [Welcome letter](#)
- [Star passport pupils' progress](#)

FAQs

- ✓ What equipment is included in my kit box for each activity?
- ✓ How many activities should I do?
- ✓ Is there a deadline for using my kit box?
- ✓ How many children can I use my kit box with?
- ✓ Can I re-use my kit box?
- ✓ Should I use my kit box in curriculum time?

Ordering additional CREST certificates

Once your children have completed 6 activities, they can receive their CREST Awards certificate!

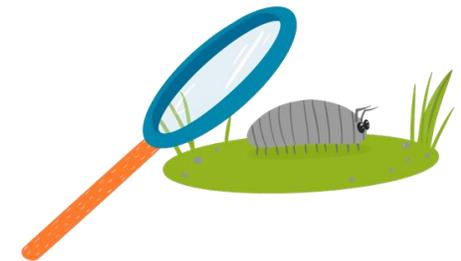
- Your kit box contains **32** CREST Star certificates (enough for a class of 30 + 2 spares!) but we know that some settings with larger cohorts may require extra copies.
- These can be ordered from our online platform: <https://apply.crestawards.org/>





CREST Star activities

A closer look...



Meet our **CREST Star** characters



Uncle Astro
Uncle to Cosmic and Gem



Joyti
Grandmother to Tara and
Cosmic's neighbour



Gem



Zeke



Seren



Aunt Stella
Aunt to Cosmic and Gem



Tara



Cosmic

Gem, Cosmic, Tara, Zeke, and Seren
all go to the same school.

The 8 CREST activities in your kit box:

CREST AWARDS | STAR

Activity card:

Animal Adventure



Cosmic and Seren are sitting on the climbing frame in Cosmic's garden. They are trying to think of something to do.

"Let's go on an animal safari!" shouts Cosmic, jumping down.

"Ok," Seren replies, "Do you mean with toy animals?"

"No, not a pretend safari," says Cosmic, "I mean a real animal adventure."

Seren looks puzzled. She follows Cosmic round the garden. He looks high, he looks low but doesn't seem to be able to find what he is looking for.

"Uncle Astro said that there are little animals, called minibeasts, all around us," says Cosmic. "But I can't see any."

"Wow! You mean tiny lions and tigers and things?" asks Seren. "Come on, let's see if Uncle Astro can help us."

Where do you think Uncle Astro will tell them to look?

Your challenge

Go on an animal adventure and see how many minibeasts you can find.

CREST AWARDS | STAR

Activity card:

Be Seen, Be Safe



Tara is really excited as she's going to meet Zeke's new dog, Luna, and help take her out for a late afternoon walk. Joyti, Tara's grandmother, is coming too, but when she sees Tara putting on her black coat, she shakes her head.

"Hold on," says Joyti, "it's going to start getting dark soon, you can't go out in those clothes, it's not safe!"

"What do you mean?" asks Tara.

"That black coat you're wearing won't be seen once it's dark," explains Joyti. "Let's find you something that will keep you seen and safe!"

CREST AWARDS | STAR

Activity card:

Peggy Problem



Aunt Stella looks out of her kitchen window. "Warm and windy... looks like the perfect washing day," she declares, as she rolls up her sleeves to wash her clothes.

When they are all clean, she carries the heavy, wet pile outside to hang on the washing line to dry. Cosmic and Gem's friendly faces appear.

"Just in time to help," Aunt Stella smiles, and soon the washing line is filled with brightly coloured T-shirts, socks, skirts and jumpers.

The three of them head into the house for a well-deserved glass of apple juice.

"Oh no!" Cosmic shouts with surprise. "Some of the clothes have fallen off the line onto the grass! I don't think your clothes pegs are grippy enough for the heavy, wet clothes."

CREST AWARDS | STAR

Activity card:

Plant Detectives



Zeke is going to play at Tara's house. He's about to open her gate when he notices a plant sticking out of a crack in the pavement. How exciting! Plants usually grow in gardens, not in pavements. How did the plant get there? He thinks that perhaps someone dropped it as they walked along, but who?

Zeke rushes inside to ask Tara to help him solve the mystery. She's bound to know the answer. Zeke explains what he has found, but Tara isn't sure how the plant got there either. She wonders if the plant might have grown from a seed under the pavement, but who could have planted the seed?

Zeke and Tara know they have to look for clues to solve a mystery. They can't wait to start searching. Tara's grandmother, Joyti, loves plants, so she comes outside to help.

CREST AWARDS | STAR

Activity card:

Sneaky Shadow



Seren is very worried. Her shadow is missing. It was there when she was outside playing. It was still with her when she walked home from school. But now it is nowhere to be seen.

Seren goes to look at Gem's house, perhaps her shadow is in Gem's garden. Aunt Stella is looking after them and says they can go outside to look for it. It is late afternoon and getting dark.

"Come here quickly," shouts Gem. "I've found a shadow!" Gem is under an outside light, looking down at her feet.

Seren runs over and looks down at her feet too. "You've found it! Great!" But when the outside light goes off, her shadow is missing again. Oh no!

Just then Aunt Stella comes out of the house. She is carrying a big torch. "I'll help you find your sneaky shadow," she says, waving the light around the garden, "and there it is!"

There on the wall is Seren's shadow. "Wow! Where did that come from?" asks Seren.

Can you guess?

Aunt Stella thinks you will see your shadow if there is bright light. Gem thinks you can only see your shadow when the sun is shining. Seren thinks shadows hide when it goes dark.

Have you ever looked at your shadow?

Does your shadow ever disappear?



CREST AWARDS | STAR

Activity card:

Sniffly Sneezes



Zeke grabs his hankie. Achoo! Achoo! Achoo!

He holds his hankie to his nose and sneezes three more times. "Oh dear, what a horrible sniffly sneeze!" he sighs, tucking his hankie into his pocket.

Now his nose is running! He needs to wipe it quickly. Zeke pulls out his hankie again and rubs his nose. This isn't any fun.

There's a knock at the door. It's Tara. She's brought Zeke a lolly to cheer him up.

Tara looks at Zeke, "Your nose is all red," she says. "It must be sore."

Zeke sighs again. "It's my hankie. It doesn't work very well. I wish I had a better one."

"OK," says Tara cheerfully. "I'm sure we can find something. I'll go and ask my grandma, Joyti, to help us. She will have lots of things we could try. But how will we know which is best?"

Joyti says she thinks a hankie needs to be strong when it's wet. Tara thinks a hankie needs to be soft on your nose, and Zeke thinks it needs to soak up water to keep your nose dry.

Have you ever had a cold? What kind of hankie did you use?

Your challenge

Zeke needs to know which hankie to use. He has lots of things to try. Can you help him?



CREST AWARDS | STAR

Activity card:

Testing Timers



It will soon be sports day and Cosmic, Gem and Seren are very excited. They have all been chosen to take part in their favourite game. They will have just one minute to throw as many beanbags as they can into a hoop.

"Let's get practising," says Cosmic.

"Good idea, we can start straight away," replies Gem. "I think there's a hoop and some beanbags in the garden, and we can use the clock on the kitchen wall to time ourselves."

They are having a wonderful time until Uncle Astro comes into the kitchen to check how his cakes are getting on in the oven. "What are you three getting up to now?" he says with a smile. "Off you go into the garden before something gets broken."

"But we won't be able to see the clock from there," cries Cosmic.

"And then we can't time one minute to see how many beanbags we get in the hoop," adds Seren.

"Why don't you make a timer that you can take outside?" suggests Uncle Astro. "There's some sand in the shed that might be useful."

Have you ever seen a sand timer? How do you think a sand timer works?

Cosmic thinks you'll need a lot of sand to measure one minute.

Gem thinks you only need a little bit of sand.

Seren thinks it might depend on the size of the hole in the timer.

What do you think?



CREST AWARDS | STAR

Activity card:

Useless Umbrella



Aunt Stella is very excited, she has been invited to a friend's wedding.

"Have you got a new dress," Seren asks, "and a new hat?" Aunt Stella goes to her wardrobe and pulls out a rainbow coloured dress and a bright purple hat.

"You are going to look fantastic," says Cosmic. "Do you have an umbrella too, in case it rains?" Aunt Stella nods and goes to the cupboard and pulls out a huge, rainbow coloured umbrella to match her dress. "Here it is," she says.

"It's enormous! Can we try it Aunt Stella?" shouts Cosmic, as he rushes outside to open the umbrella.

But it's raining outside and no sooner has Cosmic opened the umbrella than drip, drip, drip, rain is tumbling onto his head through the umbrella. The umbrella is full of holes! The umbrella is useless.

"What am I going to do?" says Aunt Stella. "I don't have another one."

"Don't worry Aunt Stella, I am sure we can fix it for you," says Cosmic.

"We just need to find something waterproof," suggests Seren.

Cosmic and Seren need to find something to fix Aunt Stella's umbrella.

Cosmic thinks they need a sponge to make it waterproof. Seren thinks they need thick fabric to fix the umbrella. Aunt Stella thinks they need brightly coloured, thin fabric to fix the umbrella.

What do you think?



Animal Adventure



Watch the demo video here:

<https://www.youtube.com/watch?v= SE-mgYFf8Y>

Can be run in small groups or with a whole class (groups of 3)

CREST AWARDS | STAR

Organiser's card:

Animal Adventure

About the activity

This activity is designed to get children thinking about minibeasts and habitats. You could run the activity with small groups, or with a whole class.

Cosmic and Seren are bored. Cosmic wants to go on an animal adventure. Uncle Astro said that they will find minibeasts if they look carefully. Cosmic looks high and low but he can't find any little animals. Seren thinks that they should ask Uncle Astro for help.

Through this activity you will support children to:

- Go on a minibeast hunt.
- Find out about the minibeasts they see and their habitats.
- Share their findings with the rest of their group.

What to do

- Introduce the activity using the story on the accompanying slides or activity card. Ask the children where they think they will find minibeasts.
- Explain that they will be going on a minibeast hunt.
- Encourage children to share their ideas about how they will hunt for minibeasts. Prompt questions:
 - Where will we look for minibeasts?
 - Will we collect them?
 - How will we make sure we don't harm them?
- Give out the equipment to the children.
- Support children to conduct their investigation and make their own records of their results. They could take photographs or make drawings. Support them to identify what they find - if you have a tablet or mobile phone, you could use Google Lens or a similar app to help with this.

Kit list

- Suitable minibeast collection kit, e.g. pooter, collection jar, collection scissors, special devices for catching minibeasts
- Appropriate magnifiers, e.g. magnifying glasses
- Identification book or app (optional)
- Outdoor environment, preferably with rocks, logs, large stones, pieces of old carpet (you could place some on the ground a few weeks earlier)

Key words

- habitat
- dump
- mud
- minibeast
- skeleton
- invertebrate

CREST AWARDS | STAR

Activity card:

Animal Adventure

Cosmic and Seren are sitting on the climbing frame in Cosmic's garden. They are trying to think of something to do.

"Let's go on an animal safari!" shouts Cosmic, jumping down.

"Ok," Seren replies, "Do you mean with toy animals?"

"No, not a pretend safari," says Cosmic, "I mean a real animal adventure."

Seren looks puzzled. She follows Cosmic round the garden. He looks high, he looks low but doesn't seem to be able to find what he is looking for.

"Uncle Astro said that there are little animals, called minibeasts, all around us," says Cosmic. "But I can't see any."

"Wow! You mean tiny lions and tigers and things?" asks Seren. "Come on, let's see if Uncle Astro can help us."

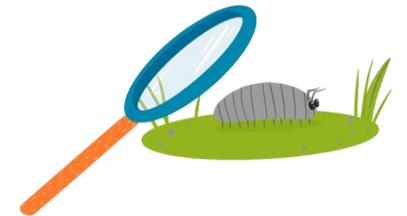
Where do you think Uncle Astro will tell them to look?

Your challenge

Go on an animal adventure and see how many minibeasts you can find.

Get children thinking about minibeasts and habitats. They will explore an outdoor area and go on a minibeast hunt!

- Cloth bag (for children to carry the equipment)
- Magnifying glass
- Collection scissors
- Plastic tub (we recommend not adding holes to the lids of the tubs provided - instead avoid keeping minibeasts for an extended time and return them to their habitat)
- Example petri dish as a model to show the children



Be Seen, Be Safe



Watch the demo video here:

<https://www.youtube.com/watch?v=owktcd9djAo>

Best run in small groups (a pair or group of 3 at a time)

CREST AWARDS | STAR

Activity card:

Be Seen, Be Safe

Tara is really excited as she's going to meet Zeke's new dog, Luna, and help take her out for a late afternoon walk. Joyti, Tara's grandmother, is coming too, but when she sees Tara putting on her black coat, she shakes her head.

"Hold on," says Joyti, "it's going to start getting dark soon, you can't go out in those clothes, it's not safe!"

"What do you mean?" asks Tara.

"That black coat you're wearing won't be seen once it's dark," explains Joyti. "Let's find you something that will keep you seen and safer!"

Your challenge

Find out if Tara and Zeke can wear something that will help them to be better seen in the dark.

Tara thinks they need to wear something shiny.

Zeke doesn't think what they wear makes a difference.

Joyti thinks they need to wear something white.

What do you think?

CREST AWARDS | STAR

Organiser's card:

Be Seen, Be Safe

About the activity

This activity is designed to get children thinking about reflection and light. The activity works best when run with small groups.

Tara wants to join Zeke and take Luna the dog out for a walk, but it's starting to get dark. The children are asked to help Tara and Zeke decide on the best thing to wear that will help them be seen in the dark.

Through this activity you will support your group to:

- Test different materials to see how reflective they are.
- Record and share their results.

What to do

1. Introduce the activity using the story on the accompanying slides or activity card. Ask the children what they think will help them to be seen in the dark. Show the equipment to the children.
2. Explain that they will be using the equipment provided to test the best way to be seen in the dark.
3. Encourage children to discuss their ideas about how to carry out their investigations. Prompt questions could include:
 - Which materials do you think will be seen?
 - How will you test to see if the materials are reflective?
 - How will you record your results?
4. Support children to conduct their tests and make their own records of their results. They could sort the materials or order them from least to most effective reflector.
5. Ask the children to share their findings with the rest of the group – they can be as creative in their presentation as they want.

Kit list

You could ask children in advance to bring things in that they think will help them to be seen in the dark.

- A selection of different materials, e.g. different coloured t-shirts or fabrics, reflector armbands, mirrored card, dark/light coloured paper etc.
- Torches
- A place that can be partially blacked out, e.g. use a dark coloured tablecloth over a table to create a dark den.

Get children thinking about reflection and light. Test materials to see how reflective they are and how to be seen at night.

- Large black tablecloth
- Torch
- Materials to test (e.g. black and white t-shirts, coloured paper and foam, mirrored card, high-vis material)



Peggy Problem

Best run in small groups (one or two pairs at a time)



Watch the demo video here:

https://www.youtube.com/watch?v=uf7aeifHJ_c

Activity card:

Peggy Problem

Aunt Stella looks out of her kitchen window. "Warm and windy... looks like the perfect washing day," she declares, as she rolls up her sleeves to wash her clothes.

When they are all clean, she carries the heavy, wet pile outside to hang on the washing line to dry. Cosmic and Gem's friendly faces appear.

"Just in time to help." Aunt Stella smiles, and soon the washing line is filled with brightly coloured T-shirts, socks, skirts and jumpers.

The three of them head into the house for a well-deserved glass of apple juice.

"Oh no!" Cosmic shouts with surprise. "Some of the clothes have fallen off the line onto the grass! I don't think your clothes pegs are grippy enough for the heavy, wet clothes."

"We've got different clothes pegs at home, perhaps they would be better," suggests Gem, looking thoughtful.

"We could test them for you, Aunt Stella," they offer eagerly.

Aunt Stella thinks a peg with a spring will have the most grip.

Cosmic thinks all the plastic pegs will have a tight grip.

Gem thinks wooden pegs might be better as she thinks wood is stronger.

Have you ever helped to hang clothes out to dry at home?

What type of clothes pegs did you use?

Your challenge

Test different types of clothes pegs and find out which ones are good for keeping washing on the line.

Organiser's card:

Peggy Problem

About the activity

This activity is designed to get children thinking about grip and strength. The activity works best when run with small groups.

It's washing day at Aunt Stella's house. She cleans her clothes and then hangs them on the line to dry. The wet clothes keep falling off the line. Cosmic and Gem decide to try to find out which are the best clothes pegs for her to use. Will some clothes pegs be grippier than others?

Through this activity you will support your group to:

- Think about what makes a peg work well.
- Test different types of peg and observe how strong they are.
- Record their results and share them with the group.

What to do

1. Introduce the activity using the story on the accompanying slides or activity card. Ask the children to talk about the questions and the opinions of Gem, Cosmic and Aunt Stella.
2. Talk through the idea of testing the pegs by adding sand, large marbles or pebbles to a sock on a washing line.
3. You could let them think of other ways of testing the clothes pegs too.
4. Discuss safety issues (see "Watch out!" overleaf for more details). Then support children to carry out their investigation.
5. Talk together about what they have found out. Were some pegs better than others? Which one worked best?

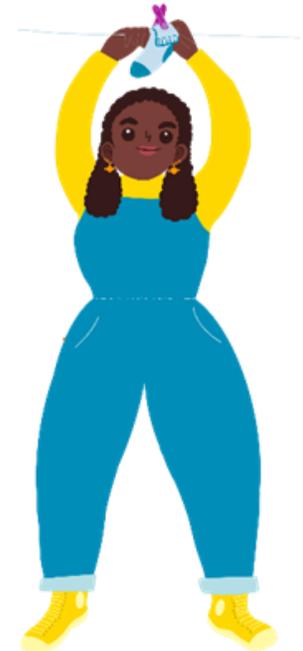
Kit list

- A length of washing line, fixed at a suitable height for the children to reach.
- Different types of clothes pegs (you could ask children to bring in pegs from home)
- Socks
- Something to gradually weigh down the socks – you could use sand, large marbles or pebbles (pebbles can be numbered and used in the same order each time if they are different sizes)
- If you are using sand, you will also need small cups for filling the socks, a dustpan and brush and bowls or a floor covering to catch the sand

Key words

- Grip
- Weight
- Spring
- Pegs
- Heavy
- Light

Get children thinking about grip and strength. They will test different types of peg and see how strong they are.



- Washing line
- Coloured socks
- Selection of pegs
- Large pebbles and sticky dots (number the pebbles using the dots and use them in the same order each time!)

Plant Detectives



Watch the demo video here:

<https://www.youtube.com/watch?v=yvsP7fdnGWY>

Can be run in small groups or with a whole class (groups of 3)

CREST AWARDS | STAR

Activity card:

Plant Detectives

Zeke is going to play at Tara's house. He's about to open her gate when he notices a plant sticking out of a crack in the pavement. How exciting! Plants usually grow in gardens, not in pavements. How did the plant get there? He thinks that perhaps someone dropped it as they walked along, but who?

Zeke rushes inside to ask Tara to help him solve the mystery. She's bound to know the answer. Zeke explains what he has found, but Tara isn't sure how the plant got there either. She wonders if the plant might have grown from a seed under the pavement, but who could have planted the seed?

Zeke and Tara know they have to look for clues to solve a mystery. They can't wait to start searching. Tara's grandmother, Joyti, loves plants, so she comes outside to help them. But where will they begin? Can you be plant detectives and help to find clues about plants that grow in unusual places?

Where have you seen plants growing?

Have you ever seen any plants growing in a pavement?

Your challenge

Become a plant detective and help Zeke and Tara solve the mystery of where plants grow.

CREST AWARDS | STAR

Organiser's card:

Plant Detectives

About the activity

This activity is designed to get children thinking about where plants grow. You could run the activity with small groups, or with a whole class.

Zeke has found a plant growing out of the pavement. He can't work out how it got there. Plants grow in gardens, not pavements - don't they? Zeke and Tara need to be plant detectives and look for clues! But where should they look to solve the mystery?

Through this activity you will support your group to:

- Think about where plants grow.
- Investigate and discover plants in their surroundings.
- Record their results using photos, drawings or a map.

What to do

1. Introduce the activity using the story on the accompanying slides or activity card. Get the children to talk to each other about the questions and the opinions of Zeke and Tara.
2. Talk with the children about where they can search for plants. Encourage them to think of unusual places to look.
3. Discuss with the children how they will record their findings and make sure everyone stays safe.
4. Children can collect samples, take photographs or create drawings. If you provide a map or plan of the area, they can add stickers or images to record where plants were found. Confident children may be able to make their own maps or plans.
5. Warn children not to eat any part of the plants that they find.
6. When the children finish hunting, let them share what they have discovered.
7. There are extra things to do on the activity card for children who have finished or who want to do more finding out at home.

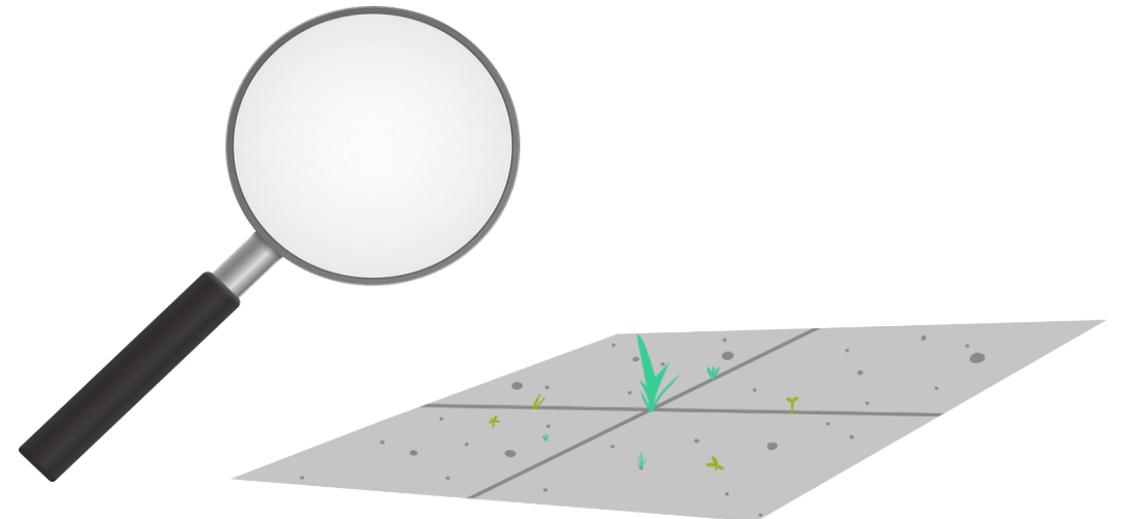
Kit list

- Access to a safe outdoor environment, ideally with a variety of surfaces such as brick walls, paving, concrete, grass
- Appropriate magnifiers, e.g. magnifying glasses
- Cameras/tablets, drawing equipment, or stickers and a simple map of your outdoor environment

Key words

- Grow
- Leaves
- Flowers
- Soil
- Plants
- Seeds
- Samples
- Map

Get children thinking about where plants grow. They will investigate plants in their outdoor surroundings.



- Magnifying glasses (reused from Animal Adventure)
- Sticky dots (optional - for marking findings on a map)

Sneaky Shadow



Watch the demo video here:

https://www.youtube.com/watch?v=MVWq_3PRfqc

Can be run in small groups or with a whole class (groups of 3)

CREST AWARDS STAR

Activity card: Sneaky Shadow

Seren is very worried. Her shadow is missing. It was there when she was outside playing. It was still with her when she walked home from school. But now it is nowhere to be seen.

Seren goes to play at Gem's house, perhaps her shadow is in Gem's garden. Aunt Stella is looking after them and says they can go outside to look for it. It is late afternoon and getting dark.

"Come here quickly," shouts Gem. "I've found a shadow!" Gem is under an outside light, looking down at her feet.

Seren runs over and looks down at her feet too. "You've found it! Great!" But when the outside light goes off, her shadow is missing again. Oh no!

Just then Aunt Stella comes out of the house. She is carrying a big torch. "I'll help you find your sneaky shadow," she says, waving the light around the garden, "and there it is!"

There on the wall is Seren's shadow. "Wow! Where did that come from?" asks Seren.

Can you guess?

Aunt Stella thinks you will see your shadow if there is bright light. Gem thinks you can only see your shadow when the sun is shining. Seren thinks shadows hide when it goes dark.

Have you ever looked at your shadow?

Does your shadow ever disappear?

CREST AWARDS STAR

Organiser's card: Sneaky Shadow

About the activity

This activity is designed to get children thinking about shadows. You could run the activity with small groups, or with a whole class.

Seren has lost her shadow. She knows that it was with her all day but now it is missing. Gem and Aunt Stella try to help her to find it. Gem finds it under an outside light and Aunt Stella finds it on the wall. Where has the sneaky shadow been hiding?

Through this activity you will support your group to:

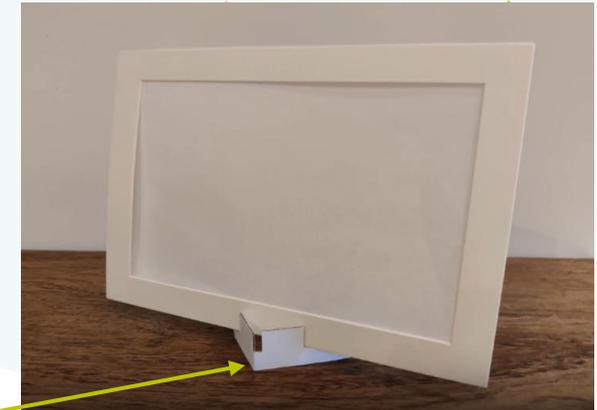
- Experiment with making shadows indoors and outside.
- Create a shadow play to share.

What to do

1. Introduce the activity using the story on the accompanying slides or activity card. Ask the children to talk about the questions and the opinions of Seren, Gem and Aunt Stella.
2. If it is sunny, you could go outside first to look at shadows.
3. Children can explore shadows using torches or other light sources.
4. Set up a shadow theatre for the children to explore.
5. Children can cut out a variety of shapes e.g. people, animals or cars. They can then attach their shapes to sticks to make simple puppets and use them to create a shadow play. Some children may need help to think of a story for their play.
6. They can experiment with coloured transparent material. Is it possible to make a coloured shadow?
7. Let them share their plays with each other. They could add sound effects using musical instruments!
8. There are extra things to do on the activity card for children who have finished or who want to do more finding out at home.

Kit list

- Torches or other light sources
- Card or thick paper
- Scissors
- Sticks to attach to the shadow puppets
- Sticky tack or sellotape
- Coloured transparent material (this can be interesting to experiment with)
- A shadow theatre - this could be a small table-top theatre, or a large screen made from a sheet. You will need a light source (e.g. torch, projector or bright lamp) and a screen (e.g. tracing paper stuck to a cardboard frame, or a white sheet)
- Musical instruments (optional)



Try making a 'V' shape with the notched stand for extra stability!

Get children thinking about shadows. They will experiment with making shadows, then create their own shadow play!

- Torches (one reused from Be Seen, Be Safe)
- Cardboard frame, tracing paper and notched stand
- Chopsticks, black card and sticky tack (for puppets)
- Translucent coloured paper (to experiment - is it possible to make a coloured shadow?)



Sniffly Sneezes



Watch the demo video here:

<https://www.youtube.com/watch?v=3VYIQ6FxeU8>

Can be run in small groups or with a whole class (groups of 3)

Activity card:

Sniffly Sneezes

Zeke grabs his hankie. Achoo! Achoo! Achoo!

He holds his hankie to his nose and sneezes three more times. "Oh dear, what a horrible sniffly sneeze!" he sighs, tucking his hankie into his pocket.

Now his nose is running! He needs to wipe it quickly. Zeke pulls out his hankie again and rubs his nose. This isn't any fun.

There's a knock at the door. It's Tara. She's brought Zeke a lolly to cheer him up.

Tara looks at Zeke. "Your nose is all red," she says. "It must be sore."

Zeke sighs again. "It's my hankie. It doesn't work very well. I wish I had a better one."

"OK," says Tara cheerfully. "I'm sure we can find something. I'll go and ask my grandma, Joyti, to help us. She will have lots of things we could try. But how will we know which is best?"

Joyti says she thinks a hankie needs to be strong when it's wet. Tara thinks a hankie needs to be soft on your nose, and Zeke thinks it needs to soak up water to keep your nose dry.

Have you ever had a cold? What kind of hankie did you use?

Your challenge

Zeke needs to know which hankie to use. He has lots of things to try. Can you help him?



Organiser's card:

Sniffly Sneezes

About the activity

This activity is designed to get children thinking about the strength and absorbency of materials. You could run the activity with small groups, or with a whole class.

Achoo! Zeke has a cold and his hankie isn't working very well. Can you help him find a better one?

Through this activity you will support your group to:

- Think about what makes a good hankie
- Test different materials and observe how they behave when used to absorb water
- Record their results and share them with the group

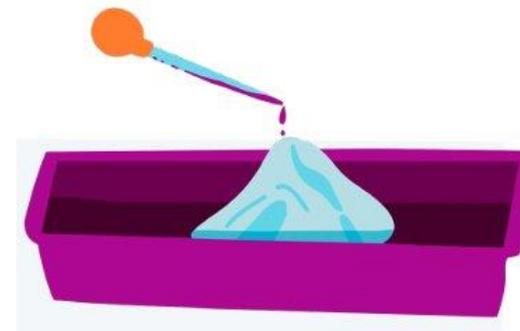
What to do

1. Introduce the activity using the story on the accompanying slides or activity card. Get the children to talk about the questions and the opinions of Zeke, Tara and Joyti.
2. Then give the children a set of materials to test as hankies. Let them talk about which they think might be best and how they will find out, before they start investigating.
3. You could list the different tests they might want to do e.g. absorbency, strength, smoothness. Make sure that they test all the different materials. Encourage them to use their own ideas too.
4. When they have finished, agree on the winners and talk about why these were the best hankies. You might ask the children to think about why we have disposable tissues.

Kit list

- A selection of different materials that could be used as hankies e.g. cotton fabric, newspaper, crêpe paper, cotton wool, tissue paper, greaseproof paper, tissues.
- Plastic trays
- Beakers
- Coloured water (dissolve a drop of food colouring or paint in a beaker of water, this will make the liquid easier for the children to see)
- Pipettes
- Paper towels to clean up any spills

Get children thinking about strength and absorbency. They will test materials to see which will make a good hankie.



- Plastic tray
- Beaker
- Green paint (to colour water)
- Pipette
- Materials to test (e.g. paper, cotton wool, tissues, baking parchment)

Testing Timers



Watch the demo video here:

<https://www.youtube.com/watch?v=M94vpUsfw7w>

Can be run in small groups or with a whole class (groups of 2 or 3)

Activity card:
Testing Timers

It will soon be sports day and Cosmic, Gem and Seren are very excited. They have all been chosen to take part in their favourite game. They will have just one minute to throw as many beanbags as they can into a hoop.

"Let's get practising," says Cosmic.

"Good idea, we can start straight away," replies Gem. "I think there's a hoop and some beanbags in the garden, and we can use the clock on the kitchen wall to time ourselves."

They are having a wonderful time until Uncle Astro comes into the kitchen to check how his cakes are getting on in the oven. "What are you three getting up to now?" he says with a smile. "Off you go into the garden before something gets broken."

"But we won't be able to see the clock from there," cries Cosmic.

"And then we can't time one minute to see how many beanbags we get in the hoop," adds Seren.

"Why don't you make a timer that you can take outside?" suggests Uncle Astro. "There's some sand in the shed that might be useful."

Have you ever seen a sand timer? How do you think a sand timer works?

Cosmic thinks you'll need a lot of sand to measure one minute.

Gem thinks you only need a little bit of sand.

Seren thinks it might depend on the size of the hole in the timer.

What do you think?

Organiser's card:
Testing Timers

About the activity

This activity is designed to get children thinking about how sand timers work. You could run the activity with small groups, or with a whole class.

Cosmic, Gem and Seren are practising for sports day. They need a timer to work out how many beanbags they can get into the hoop in one minute, but they are not allowed to throw things in the kitchen near the clock. They want to make a timer to take into the garden. Uncle Astro thinks that they can use sand to make a timer.

Through this activity you will support your group to:

- Compare real sand timers and observe which variables affect the time they measure.
- Experiment with different hole size and quantities of sand in their own sand timer.
- Test their sand timer and reflect on how it could be improved.

Kit list

- Real sand timers
- Dry paper cups
- Dry sand
- Sharp pointed pencil to make holes (use some sticky tack or plasticine underneath the cup to help)
- Stopwatch or clock with second hand (you could use a countdown timer on a tablet or on your whiteboard)
- You might like to use trays or a covering on the tables where the children are working
- Water, sugar, salt etc (optional alternatives to sand)

What to do

1. Introduce the activity by reading the story on the accompanying slides or activity card together. Get the children to talk about the questions and the opinions of Cosmic, Gem and Seren.
2. Discuss how to make sure they carry out the task safely.
3. Let the children look at real sand timers first. Then encourage them to explore different cups and sizes of hole before they try to make their one-minute timer.
4. Talk together about what they have found out. Can they explain why they have different answers to how much sand you need? What would they change to improve their timer?

Get children thinking about how sand timers work. They will observe real sand timers and then make their own!

- Real sand timers to demo
- Paper cups
- Sticky tack (to help make holes in cups safely)
- Coloured sand



Useless Umbrella



Watch the demo video here:

<https://www.youtube.com/watch?v=raM29yD0MQk>

Can be run in small groups or with a whole class (groups of 3)

CREST AWARDS STAR

Aunt Stella

Activity card:

Useless Umbrella

Aunt Stella is very excited, she has been invited to a friend's wedding.

"Have you got a new dress," Seren asks, "and a new hat?" Aunt Stella goes to her wardrobe and pulls out a rainbow coloured dress and a bright purple hat.

"You are going to look fantastic," says Cosmic. "Do you have an umbrella too, in case it rains?" Aunt Stella nods and goes to the cupboard and pulls out a huge, rainbow coloured umbrella to match her dress. "Here it is," she says.

"It's enormous! Can we try it Aunt Stella?" shouts Cosmic, as he rushes outside to open the umbrella.

But it's raining outside and no sooner has Cosmic opened the umbrella than drip, drip, drip, rain is tumbling onto his head through the umbrella. The umbrella is full of holes! The umbrella is useless. "What am I going to do?" says Aunt Stella. "I don't have another one."

"Don't worry Aunt Stella, I am sure we can fix it for you," says Cosmic.

"We just need to find something waterproof," suggests Seren.

Cosmic and Seren need to find something to fix Aunt Stella's umbrella.

Cosmic thinks they need a sponge to make it waterproof
Seren thinks they need thick fabric to fix the umbrella
Aunt Stella thinks they need brightly coloured, thin fabric to fix the umbrella.

What do you think?

CREST AWARDS STAR

Organiser's card:

Useless Umbrella

About the activity

This activity is designed to get children thinking about materials and their water resistance. You could run the activity with small groups, or with a whole class.

Aunt Stella is going to a friend's wedding. She is going to take a beautiful, big, rainbow umbrella with her in case it rains. Cosmic has rushed into the garden with the umbrella to try it out. It's raining. Oh no! The umbrella is leaking. Cosmic is getting very wet. How can they fix the umbrella for Aunt Stella?

Through this activity you will support your group to:

- Design an experiment to test how waterproof different materials are.
- Carry out their experiment and observe what happens.
- Decide on the best material for an umbrella and share their ideas.

What to do

1. Introduce the activity by reading the story on the accompanying slides or activity card. Get the children to talk about the questions and the opinions of Cosmic, Seren and Aunt Stella.
2. Provide the children with a selection of different pieces of fabric and other materials to test, some examples are in the kit list.
3. Talk through how they might find out if the fabrics are waterproof. Encourage them to explore their own ideas.

Kit list

- Selection of fabrics and other materials e.g. plastic, sponge, foil, card and wood. Try to make sure some of the fabrics are waterproof. (Pieces from a broken umbrella or raincoat would be good.)
- Pipettes
- Water coloured with food dye or a drop of paint
- Beakers
- Plastic trays
- Paper towels (including a few extra to wipe up any spills)
- Paper, pencils and pens for creating pictures (optional)

Get children thinking about materials and their water resistance. They will test these to find which is best to repair an umbrella.

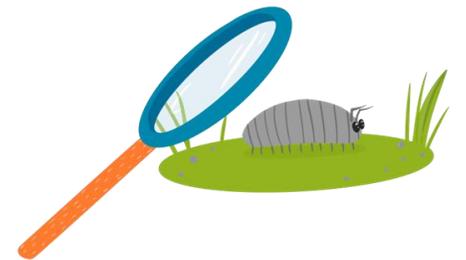
- Plastic tray and beaker (reused from Sniffly Sneezes)
- Blue paint (to colour water)
- Pipette (reused from Sniffly Sneezes)
- Materials to test (e.g. sponge, wood, foil, cotton)
- Paper towels for testing
- Mini umbrella (with small holes!) to use as a story prop





Q & A

Is there anything you need support with?



Involving parents and carers

Some ideas from educators!



- Why not send some of the activities or follow-on tasks home, for families to try together.
- You could invite parents and carers to a special celebration assembly to watch the children receive their CREST certificates.

- You could share photos of the children taking part in the activities in your newsletter, or on a photo sharing platform if you use one.
- You might like to invite parents and carers into your setting to support running the activities, or to see the investigations in action.





What next?

- We will share this presentation, so you have a record of the session
- We will be in touch with links to the next support webinar, but please feel free to get in touch with any queries in the meantime: crest@britishscienceassociation.org





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