

**Aims:**

Discover what we can all do to prevent the spread of different invasive species and think about and understand the consequences if we don't.

You will need:

- Problems and Preventions sheet, printed out and cut up (Activity 4.2a) (you might want to print them on different coloured paper)

Instructions:

1. Divide the group in half.
2. One half of the group are the **"Problems"**.
These are examples of the problems occurring and causing the spread of invasive species. Give each person a "problem" slip of paper.
3. The other half of the group are the **"Preventions"**.
These are actions that can be done to slow or stop the invasive species problem. Give each person a "prevention" slip of paper.
4. The **'Problems'** should remain seated. The **'Preventions'** should move around the classroom quizzing their fellow pupils about what their problem scenario is until they find the one that matches their prevention action.
5. Once everyone is correctly paired, ask each pair to come up with a **"Prediction"**. This is what might happen if the prevention wasn't applied to the problem, a mini story of what happened next if the problem continued. Encourage imagination and horror stories!

You can also consider the prediction if the prevention is applied – but this is likely to be less creative!
6. Re-issue the cards and play a few rounds.
7. After the final round, get each pair to stand up and read out the problem, the prevention and share their thoughts on the prediction.

Handy notes:**Do more:**

With the groups knowledge of invasive species you could write your own set of problems and think about what preventions might work to solve them. What might happen if you did nothing? Why would your preventions work?

Problem	Prevention	Possible predictions...
Giant hogweed seeds get caught in the boots of a hiker.	Check and clean your shoes and boots after being in countryside.	Walker goes to different woodland next day....spreads seeds.....new stand of Giant hogweed appear in new places.... it starts taking over all the rivers...
Himalayan balsam seeds get stuck in dog paws after walking in the countryside.	Check and wash your dog paws after going for walks.	Dog brings home and spreads seeds into garden... takes over garden.... Garden flowers all die....
Cyclists ride through broken Japanese knotweed plants, catching plant fragments in their tyres.	Always hose down bikes when you get home from off-road cycling.	Cyclist rides to another town and into woods...fragments fall off into soil...knotweed spread to the new town.... takes over wood and reduces wildlife there....
Garden waste containing Russian vine dumped in layby at side of road.	Promote good advice for gardeners so people know not to fly tip garden waste.	Russian vine keeps growing in the pile of waste...spreads into woods at site of road...grows madly...up tree trunks...over hedges...takes over woodland... native wildlife and plants can't survive...
New Zealand pigmyweed attaches to propeller of canal boat.	Ensure canal boats are cleaned before moving between canals.	The plant arrives is a new canal... spreads like crazy... covers surface of water entirely... so dense canal becomes totally blocked... boats can't sail through it and get stuck...
Sailing boat launches into loch with Zebra mussels stuck to hull.	Ensure boat wash stations available at boat slipways and launching sites so they can be cleaned before being launched into different lochs.	Zebra mussel falls of boat... starts multiplying and growing in loch... gets into water pipe.... more grow... block water pipe... no water for drinking water plant... cost lot of money to clear from pipe...
Anglers snag Curly waterweed plant fragments on their waders.	Check and clean your waders and fishing gear at the river before travelling home.	Take home Curly waterweed unnoticed on waders... next day goes angling to different river... water weed fall into water... starts to grow in new river... new infestation...
Chef stocks local river with Signal crayfish so she can use them for cooking.	More activities to raise awareness with the public of dangers of introducing non-native species into rivers.	Signal crayfish like the river... grow and breed...out compete native crayfish... eat all the local aquatic wildlife... no wildlife left in river...
Asian hornets arrive in GB in imported bunches of flowers.	Put in place tighter biosecurity measures for imported soil, flowers and fruit.	Asian hornets nest and breed in GB... hornets attack and kill native honey bees... all honey bees wiped out... no more honey!
Gardener clears out garden pond and puts pond plants, including Water primrose, into council green waste bin.	More information needed for gardeners about how to 'Compost with Care' and not put invasive plants into recycling compost bins.	Water primrose arrives at composting site... finds small ditch and puts down roots in bank... starts growing in ditch... spreads right down the ditch... which leads to a nature reserve pond... gets into pond... chokes out native plants in pond... native wildlife decreases...

An unwanted pet, a goldfish, is released into a local river.	Raise awareness about responsible pet ownership and not releasing exotic animals into rivers.	Goldfish grows big... reverts to natural brown colour... compete with native fish for food and spawning areas... native wildlife reduced... brings with it a disease that wipes out native fish...
An angler uses American bullfrog tadpoles for fishing bait.	Never use live non-native baits when angling.	Bullfrog tadpoles escape into loch...grow into bullfrogs... out-compete native frogs... breed...lay more tadpoles... more predation of native species... bullfrogs take over and no native amphibians left...
Neighbours exchange potted plants not realising New Zealand flatworms are in the soil.	Check all potted plants, give away only cuttings, seeds or bare rooted plants.	Flatworms spread into garden... predate on native earthworms... leads to poor soil quality and lack of aeration in soil... neighbours vegetables all fail to grow...
Raccoon escapes from a private pet collection.	Need to stop animals from zoos and private animal collections from escaping – tighter licences needed on keeping exotic animals.	Raccoon heads into nearby woodland... at night sneaks into gardens... raids rubbish bins... gets into chicken coup and kills chickens... eats small wild animal... competes with native animals for food...
Ships arrive in port with Killer shrimp in their ballast water, which they dump in river.	Treat all boat ballast water with chemicals or ultraviolet light to kill any invasive species.	Killer shrimp released into river... spreads into other rivers... goes on rampage and kills native invertebrates (not even bothering to eat them) like damselflies... all damselflies wiped out...
Competitors in a triathlon race run through mud and pick up Rhododendron seeds on their shoes.	Event organisers put in place event biosecurity plans and provide wash stations for cleaning running shoes, bikes and wetsuits.	100 competitors all return to their own homes across the country... all go out training the next week... 100 new woodlands are infected with Rhododendron seeds... 100 woodlands are taken over by Rhododendron....