



EduTrend Contents

P4C · SCIENCE AND WONDER · MIDDLE SCHOOL

Should We Do Everything Science Can?

Science, ethics and responsibility

Ages 12–14

Level: Intermediate

50 minutes

Circle and small groups
· up to 30

Activity 04

Inside: activity at a glance · step-by-step session plan · facilitator notes · 3 student worksheets · assessment checklist

ACTIVITY 04 · AT A GLANCE

Should We Do Everything Science Can?

Students consider invented cases: a lab can bring back an extinct animal, a scientist can design a crop that grows in deserts but might spread, and a company can make a pill that removes the need for sleep. Groups list benefits, risks and who should decide. They create questions and enquire into whether we should do everything science makes possible.

Learning outcomes

By the end of the session students can:

- weigh benefits and risks;
- identify stakeholders;
- reason about responsibility;
- justify a judgement.

KEY WORDS

ethics · risk · benefit · responsibility
· decide · technology

CURRICULUM LINKS

Science: the impact of science.
Citizenship: decision-making.
Geography: environment.

1**STIMULUS**

Share something to think about

2**THINK**

Quiet thinking time

3**QUESTION**

Create and choose a question

4**ENQUIRE**

Reason together

5**BUILD**

Agree, disagree, add

6**REFLECT**

Last words

Materials (per class)

- Technology case cards
- Benefit and risk chart
- Question and thinking-move cards
- Worksheets 1, 2 and 3

Before the session

- Read the stimulus and note possible concepts.
- Prepare question and thinking-move cards.
- Set out a circle so everyone can see each other.
- Print the worksheets.

SAFETY

Everyone may pass. Discuss ideas, not people, and use the story or invented examples rather than personal situations.

ACTIVITY 04 · SESSION PLAN

Step by step

Stay neutral: ask for reasons, examples and counter-examples rather than giving your own view.

Time	What happens	Say or ask
0–8 min Stimulus	Share the three invented technology cases.	<i>"What did you notice?"</i>
8–20 min Questions	Students create questions in pairs and vote on one.	<i>"Which question is most interesting to talk about?"</i>
20–44 min Enquiry	Enquire into the chosen question, building on each other's ideas.	<i>"Should we do everything science can do?"</i>
44–50 min Last words	Each person says one last thought or passes.	<i>"Has your thinking changed?"</i>

CHALLENGE CARD (print or copy onto the board)

Argue whether one case should go ahead.

ACTIVITY 04 · FACILITATOR NOTES

The philosophy in brief

Many scientific advances raise ethical questions about safety, fairness and the environment.

Societies often use ethics committees, public debate and laws to guide how science is used.

Common ideas to listen for

- “If it is possible, it must be right.” Ability is not permission.
- “Science is always dangerous.” It brings great benefits.
- “Only scientists should decide.” Many people are affected.

Adapting the activity

Support

Discuss one case.

Stretch

Draft rules for a science ethics committee.

WORKSHEET 1

Our questions

Name: _____

Class: _____ Date: _____

Write questions the stimulus makes you wonder about.

Our questions

Question	Who asked	Votes

WORKSHEET 2

Weigh it up

Analyse a case.

Weigh it up

Benefits	Risks	Who should decide?

WORKSHEET 3

Last words

Before and after.

Who should decide how science is used? Before the enquiry I thought... Now I think... because...

FOR THE TEACHER

Assessment checklist

Use during the session. One sheet covers up to eight students; copy as needed.

Student	Asks a philosophical question	Gives reasons and examples	Listens and builds on others

Suggested codes: W = working towards · E = expected · G = greater depth

ABOUT THIS ACTIVITY

Should We Do Everything Science Can? is a sample activity from the EduTrend Contents P4C Science and Wonder programme (middle school, level: intermediate). Every activity in the programme follows the same format: a practical challenge, a clear session plan, facilitator notes and ready-to-print worksheets, so that teachers, club leaders and parents can run it without extra preparation.

Full 15-, 20- and 32-week programmes are available from EduStore at edutrend.org.

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